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

FORM 8-K

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

Date of Report (Date of Earliest Event Reported): April 7, 2017

ORGANOVO HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

Commission File Number: 001-35996

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

6275 Nancy Ridge Drive, Suite 110
San Diego, CA 92121
(Address of principal executive offices, including zip code)

(858) 224-1000
(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Continued Service, Consulting and Separation Agreement

On April 11, 2017, Organovo Holdings, Inc. (the “*Company*”) announced a chief executive officer transition plan, under which, Keith Murphy, its current chief executive officer and president, will resign from the Company, effective April 21, 2017, and Taylor J. Crouch will join the Company as its new chief executive officer and president, effective April 24, 2017. The Company also announced that Mr. Murphy will remain on the Company’s board of directors (the “*Board*”) as chairman of the Board.

In connection with the transition, the Company entered into a Continued Service, Consulting and Separation Agreement, dated April 7, 2017 (the “*Separation Agreement*”), with Mr. Murphy. Under the Separation Agreement, Mr. Murphy will continue to serve as the Company’s chief executive officer and president through April 21, 2017 (the “*Separation Date*”), at which time he will transition to serving as a consultant for a 12-month period to help ensure a smooth transition to Mr. Crouch as well as to provide other agreed upon services. Mr. Murphy will receive \$65,625 per month for his consulting services. He will also continue to vest as a “service” provider in his previously-issued and outstanding equity awards during his consultancy. The terms of Mr. Murphy’s consulting relationship with the Company are set forth in a separate Consulting Agreement, attached as Exhibit A to the Separation Agreement.

Mr. Murphy will remain eligible to receive a bonus under the Company’s short-term incentive plan for his prior services to the Company during its fiscal year ended March 31, 2017 (“*fiscal 2017*”). The amount of the bonus will be determined by the Compensation Committee of the Board (the “*Compensation Committee*”) based on its evaluation of Mr. Murphy’s achievement of the individual and corporate performance goals previously approved by the Compensation Committee for fiscal 2017. This bonus will be paid to Mr. Murphy at the same time the Company’s other executive officers receive bonus payments for their services during fiscal 2017. Mr. Murphy will also receive a pro-rata fiscal 2018 bonus, payable at target, for his services to the Company from April 1, 2017 to April 21, 2017. In addition, the Company has agreed to provide Mr. Murphy with 18 months of continued health benefits after the Separation Date.

After the Separation Date, as a non-employee director, Mr. Murphy will be eligible to participate in the Company’s non-employee director compensation program, which provides for an annual retainer of \$50,000, payable on a quarterly basis, and an annual grant of long-term equity awards. Mr. Murphy will be eligible to receive his first non-employee director equity awards following the Company’s 2017 annual meeting of stockholders.

Under the Separation Agreement, Mr. Murphy has agreed to a general release of claims and other restrictions and covenants in favor of the Company, including standstill, confidentiality, non-compete and non-solicitation provisions. Mr. Murphy will also be responsible for complying with the Company’s policies applicable to directors and consultants, and Mr. Murphy and the Company have agreed to mutual non-disparagement provisions. The Company has agreed to pay Mr. Murphy \$262,500 for his delivery of a bring-down release in favor of the Company covering the time period between the effective date of the Separation Agreement and the end of Mr. Murphy’s consulting services. The form of the bring-down release is attached to the Separation Agreement as Exhibit B.

The foregoing summary of the Separation Agreement and its associated agreements and exhibits is not complete, and is qualified in its entirety by reference to the full text thereof, a copy of which is filed as Exhibit 10.1 to this Current Report on Form 8-K, and incorporated herein by reference.

New CEO Offer Letter

On April 11, 2017, the Company announced that the Board had appointed Taylor J. Crouch to serve as its chief executive officer and president and as a member of the Board, each effective as of April 24, 2017 (the “*Start Date*”).

Mr. Crouch, age 57, has over 25 years of experience building and leading technology, expertise and product-based companies in the life sciences and biotech industries. For more than seven years, he has managed and served as an

operational investor in a group of leading clinical research site companies. Specifically, Mr. Crouch served as Chief Executive Officer at eStudySite, a position he held from January 2009 to June 2016; as Executive Chairman of Meridien Research from December 2013 to September 2016; and as a Director of the National Research Institute from September 2011 through July 2016. He was instrumental in building these three sister companies, and helping them to achieve significant and profitable growth and to become recognized leaders in their respective fields of infectious disease, CNS disorders and metabolic disease. Prior to this, Mr. Crouch served as senior vice president of operations/president international at Ligand Pharmaceuticals from 2005 to 2007, with responsibilities for new business development, technical operations, international sales and clinical research. Prior to Ligand, he was president and chief operating officer of Discovery Partners International (NASDAQ: formerly DPPI – a large drug discovery services and technology provider). Earlier in his career, he was chief executive officer of Variagenics (NASDAQ: formerly VGNX – a leading pharmacogenomics company), senior vice president of marketing and sales at Parexel (a global CRO), and he also held international management positions in new product development and commercialization at Pfizer and Schering Plough. Mr. Crouch holds a BSE in chemical engineering, *cum laude*, from Princeton University and an MBA in international marketing and finance from the University of Chicago.

Mr. Crouch's previous service as a chief executive officer or as a senior executive officer for other leading life science and biotech companies, especially his experience and leadership in growing their commercial operations and sales, as well as his new role as our chief executive officer and president, contributed to the Board's conclusion that he is qualified to serve as a member of the Board.

In connection with Mr. Crouch's employment, the Company entered into an offer letter with him on April 11, 2017 (the "**Offer Letter**"). Under the Offer Letter, Mr. Crouch will be entitled to receive (i) an annual base salary of \$500,000 and (ii) a target annual cash incentive bonus equal to 50% of his base salary, with the actual amount of the bonus to be based on the achievement of certain corporate and individual performance goals to be established by the Compensation Committee.

In addition, after his Start Date, the Compensation Committee will grant Mr. Crouch a stock option award (the "**Option**") to purchase 2,088,212 shares of the Company's common stock (the "**Option Shares**"). The Option Shares will have an exercise price set at the closing market price of the Company's common stock on the Nasdaq Stock Market on the grant date. One-fourth of the Option Shares will vest on the one-year anniversary of the Start Date, and the remaining Option Shares will vest in equal quarterly installments over the next 12 quarterly periods, subject to Mr. Crouch's continuous service through the applicable vesting date. At the same time, the Compensation Committee will also grant Mr. Crouch a performance-based restricted stock unit award (the "**PBRSU**") representing the right to receive up to 208,822 shares of the Company's common stock. The PBRSU will vest according to the Company's achievement of financial performance metrics to be agreed upon by the Compensation Committee and Mr. Crouch. The Option and the PBRSU will be granted outside of the Company's 2012 Equity Incentive Plan (the "**Stock Plan**"). The Company intends for the Option and PBRSU awards to be "inducement grants" within the meaning of Nasdaq Marketplace Rule 5635(c)(4). While the Option and PBRSU will be granted outside the Company's Stock Plan, the terms and conditions of these awards will be consistent with awards granted to the Company's executive officers pursuant to the Stock Plan. Mr. Crouch will also be entitled to participate in the other compensation and benefit programs the Company's makes available to its employees.

Mr. Crouch will serve as a Class II director until the Company's 2019 annual meeting of stockholders. He will not receive any other compensation for serving as a member of the Board.

Additionally, Mr. Crouch will be a Tier 1 participant under the Company's 2015 Severance and Change in Control Plan (the "**Severance Plan**"). As a Tier 1 participant, if the Company terminates Mr. Crouch's employment for reasons other than cause, death or disability or Mr. Crouch terminates his employment for good reason, Mr. Crouch will be eligible to receive a cash severance payment equal to two times his base salary, plus a pro-rated target bonus for the fiscal year in which the termination occurs, health benefit continuation for 18 months and outplacement assistance for 18 months. Upon termination of Mr. Crouch's employment by the Company for reasons other than cause, death or disability or by Mr. Crouch for good reason six months before or within 12 months after a change in control, Mr. Crouch will be eligible to receive a cash severance payment equal to two times his base salary, plus a pro-rated target bonus for the fiscal year in which the termination occurs, health benefit continuation for 18 months and outplacement assistance for 18 months. In addition, Mr. Crouch will receive full accelerated vesting of his outstanding equity awards and a one-year time period to exercise any stock options or stock appreciation rights

included in such equity awards that are not cashed out upon the change in control. Under the Severance Plan, Mr. Crouch's right to receive severance benefits is subject to and contingent upon his execution of a release agreement in favor of the Company and his compliance with the restrictive covenants set forth in Section 7(b) of the Severance Plan.

On the Start Date, the Company and Mr. Crouch will also enter into the Company's standard form of indemnification agreement for its officers and directors, which will provide for indemnification and the advancement of litigation and other expenses to Mr. Crouch to the fullest extent permitted by law.

There are no family relationships between Mr. Crouch and any of the Company's other directors or executive officers, and Mr. Crouch does not have any direct or indirect material interests in any transaction required to be disclosed pursuant to Item 404(a) of Regulation S-K. Further, other than the Offer Letter, there are no arrangements or understandings regarding Mr. Crouch's appointment to the Board or service as a director.

A copy of the Offer Letter is filed as Exhibit 10.2 to this Current Report on Form 8-K. The foregoing description of the Offer Letter is qualified in its entirety by reference to the full text thereof, which is incorporated by reference herein. The Company's 2015 Severance and Change in Control Plan was previously approved by the Compensation Committee in November 2015, and filed with the Securities and Exchange Commission on November 9, 2015 as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015 and is incorporated by reference herein. The Company's form of indemnification agreement was filed with the Securities and Exchange Commission on February 13, 2012 as Exhibit 10.17 to the Company's Current Report on Form 8-K and is incorporated by reference herein.

Item 7.01 Regulation FD Disclosure.

On April 11, 2017, the Company issued a press release announcing the transition of the role of chief executive officer and president from Mr. Murphy to Mr. Crouch. A copy of that press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K, and incorporated by reference in this Item 7.01.

The information furnished in this Item 7.01 to this Form 8-K, including Exhibit 99.1 furnished herewith, shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any other filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except as expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

Exhibit No.	Description
10.1	Continued Service, Consulting and Separation Agreement, dated April 7, 2017, by and between the Company and Keith Murphy.
10.2	Offer Letter, dated April 11, 2017, by and between the Company and Taylor Crouch.
99.1	Press release, dated April 11, 2017.

SIGNATURES

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

ORGANOVO HOLDINGS, INC.

Date: April 11, 2017

By: /s/ Craig Kussman

Name: Craig Kussman

Title: Chief Financial Officer

Exhibit Index

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10.1	Continued Service, Consulting and Separation Agreement, dated April 7, 2017, by and between the Company and Keith Murphy.
10.2	Offer Letter, dated April 11, 2017, by and between the Company and Taylor Crouch.
99.1	Press release, dated April 11, 2017.

ORGANOVO HOLDINGS, INC.

CONTINUED SERVICE, CONSULTING AND SEPARATION AGREEMENT

This Continued Service, Consulting and Separation Agreement (this "**Agreement**") is made and entered into as of April 7, 2017 (the "**Agreement Date**") by and between Organovo Holdings, Inc., a Delaware corporation, with its principal place of business at 6275 Nancy Ridge Road, San Diego, California, 92121 (collectively with and including all of the subsidiaries of Organovo Holdings, Inc., the "**Company**"), and Keith Murphy, an individual with his principal place of business at ("**Murphy**") (each herein referred to individually as a "**Party**," or collectively as the "**Parties**").

A. Murphy presently serves as the Company's President and Chief Executive Officer (collectively, "**CEO**") and as Chairman of the Company's Board of Directors (the "**Board**").

B. Murphy and the Board have determined that it would be in the best interests of the Company and its stockholders to identify and retain an individual with expertise in commercial operations to serve as CEO.

C. Murphy and the Board desire for Murphy to continue to provide services to the Company as a director on the Board and as a consultant to the Company.

D. Murphy and the Company desire to (i) reach an amicable separation arrangement with Murphy and (ii) secure Murphy's continued services to the Company, on the terms and conditions described below.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the Parties agree as follows:

1. Separation; Public Communication.

A. Murphy shall be deemed to have resigned, without any further action by Murphy or the Company: (i) as an employee of Company, (ii) as the Company's Chief Executive Officer and President, (iii) as an officer in any other position in the Company or any Company subsidiary, and (iv) and as a member of the board of directors of any Company subsidiary (and as a member of any committee thereof), in each case, effective as of the date of Murphy's agreed upon last day of employment, April 21, 2017 (the "**Separation Date**"). Murphy agrees that his separation as an officer of the Company is not the result of any disagreement with the Company or the Board on any matter relating to the Company's operations, policies or practices.

B. The Company agrees to prepare and issue a Press Release and a Current Report on Form 8-K regarding Murphy's transition from CEO of the Company to a consultant for the Company and the Board's appointment of a new CEO that is mutually acceptable to Company and Murphy; provided, that Murphy acknowledges that the Current Report must be filed within four (4) business days after the Agreement Date (as defined below).

C. Murphy hereby acknowledges and agrees that (i) other than the bonuses for service as CEO during Fiscal 2017 and during Fiscal 2018 through the Separation Date described in Paragraphs D and F below and base salary accrued and payable on the next normal payroll date, the Company has paid him all of his salary and wages and all of his accrued and unused vacation time through the Agreement Date (subject to applicable tax and other withholdings) and (ii) the Company has reimbursed Murphy for all reimbursable business expenses incurred by him through the Agreement Date.

D. The Company agrees to pay Murphy a bonus for his service to the Company during the fiscal year ended March 31, 2017 ("**Fiscal 2017**") as determined by the Compensation Committee of the Board in accordance with the terms of the Company's Short-Term Incentive Plan, and payable at the same time the Company pays bonuses to the Company's other executive officers who are participants in the Short-Term Incentive Plan. On

the Separation Date, the Company agrees to pay Murphy all unpaid salary, accrued and unused vacation time and all reimbursable business expenses (subject to tax and other withholdings) earned by Murphy. Murphy's participation in all benefits and incidents of employment with the Company, including, but not limited to, salary, bonuses, equity or stock awards, vacation or paid time off, and benefits will cease as of the Separation Date.

E. **Schedule A** lists Murphy's outstanding equity awards as of the Agreement Date (the "**Equity Awards**"). Pursuant to the terms of the Company's 2012 Equity Incentive Plan (the "**Stock Plan**") and the Equity Awards, Murphy shall continue to be a Service Provider and shall be deemed to be providing "**Services**" to the Company and, as a result, shall continue to vest in accordance with the terms of his Equity Awards as long as Murphy continues to serve as an employee, director or consultant of the Company. Murphy's period to exercise his vested stock options, if any, shall extend in accordance with the terms of his Equity Awards. Murphy acknowledges and agrees that extending the period in which he may exercise his vested Stock Options by more than ninety (90) days from the date he ceases to be an employee of the Company will have the effect of automatically converting any of his stock options that are currently Incentive Stock Options ("**ISOs**") to Non-Qualified Stock Options ("**NSOs**"). Murphy further acknowledges that ISOs and NSOs are treated differently under the tax laws (e.g., upon exercise of an NSO, the exercising party must pay tax on the spread between the then fair market value of the Company's Common Stock and the exercise price paid for the stock), and that he is responsible for seeking his own legal and tax advice on such matters.

F. For Murphy's services as an employee of the Company provided during the fiscal year ending March 31, 2018 ("**Fiscal 2018**") through the Separation Date, the Company agrees to pay Murphy a bonus (on a pro-rated basis) (the "**2018 Bonus**"). The 2018 Bonus will be calculated by (i) multiplying \$250,000 (representing the same "Target" bonus amount set by the Compensation Committee of the Board pursuant to the terms of the Company's Short-Term Incentive Plan for Fiscal 2017 by (ii) the portion of the year he provides continued services as the Company's CEO during Fiscal 2018, and payable on the Separation Date.

G. Murphy and Company hereby agree that the Participation Agreement between the Company and Murphy, dated November 4, 2015 and issued pursuant to the Company's Severance and Change in Control Plan (the "**Severance Plan**"), shall be terminated effective upon the Effective Date, after which Murphy will have no further rights or claim to benefits under the Severance Plan.

H. In consideration of the mutual covenants set forth herein, Section 11 of the Indemnification Agreement (as defined in Section 6.B below) is amended and restated in its entirety as follows:

"(i) Maintenance of D&O Insurance. The Company hereby covenants and agrees that, so long as Indemnitee shall continue to serve as an agent of the Company and thereafter so long as Indemnitee shall be subject to any possible proceeding by reason of the fact that Indemnitee was an agent of the Company, the Company, subject to Section (b) below, shall promptly obtain and maintain in full force and effect directors' and officers' liability insurance ("D&O Insurance") in reasonable amounts from established and reputable insurers of a minimum A.M. Best rating of A- VII, and as more fully described below. In the event of a change in control, the Company shall, as set forth in Section (b) below, either: (i) maintain such D&O Insurance for six years; or (ii) purchase a six-year tail for such D&O Insurance. Should a tail policy be purchased, reasonable efforts shall be made to try to negotiate that such policy is purchased by the Company's D&O insurance broker at that time, and under the same or better terms and limits for individuals that is in place at that time.

(ii) Limitation on Required Maintenance of D&O Insurance. Notwithstanding the foregoing, the Company shall have no obligation to obtain or maintain D&O Insurance at all, or of any type, terms, or amount, if the Company determines in good faith and after using commercially reasonable efforts that: such insurance is not reasonably available; the premium costs for such insurance are disproportionate to the amount of coverage provided; the coverage provided by such insurance is limited so as to provide an insufficient or unreasonable benefit; Indemnitee is covered by similar insurance maintained by a subsidiary of the Company; or the Company is to be acquired and a policy (tail or otherwise) of reasonable terms and duration can be purchased for pre-closing acts or omissions by Indemnitee."

2. Continued Board Service.

A. Consistent with the provisions of Section 3(h)(v) of the Company's Corporate Governance Guidelines, Murphy shall be deemed to have tendered his resignation from the Board of Directors, without any further action by Murphy or the Company, effective as of the Separation Date.

B. The Nominating and Corporate Governance Committee (the "**Nominating Committee**") and the Board have determined that it is in the best interests of the Company and its stockholders not to accept Murphy's resignation from the Board as a result of his resignation as Chief Executive Officer and President of the Company, and have resolved not to accept Murphy's resignation from the Board. Accordingly, it is expected that Murphy will continue to serve as a director of the Board for the remainder of his term as a Class I Director until the 2018 Annual Meeting of Stockholders; provided that if (i) this Agreement does not become effective in accordance with Section 4.D below or (ii) the Board (acting in good faith by majority vote) determines that (A) Murphy has materially breached this Agreement, the Consulting Agreement (as defined below) or any of the Company's policies that are applicable to directors prior to the date of the 2018 Annual Meeting of Stockholders and (B) Murphy has not cured or cannot cure such breach in accordance with Section 11.B below, Murphy shall be deemed to have resigned from the Board without any further action by Murphy or the Company unless Murphy provides written notice to the Board of his disagreement of the Board's breach determination within five (5) business days of his receipt of written notice from the Board regarding the breach determination. If Murphy provides timely written notice regarding his disagreement with the Board's breach determination, the Parties agree to resolve any dispute by entering into a binding arbitration pursuant to Section 13.A below. Murphy will continue to serve as a director while such arbitration is pending, and until a final decision is rendered by the arbitrator. If the arbitrator decides in favor of the Board's breach determination, Murphy resignation from the Board shall become automatically and immediately effective, without any further action by Murphy or the Company.

C. The Board and the Nominating Committee will have the discretion, but not the obligation, to re-nominate Murphy for continued service on the Board at the 2018 Annual Meeting of Stockholders.

D. From and after the Separation Date, Murphy shall be entitled to receive additional compensation for his service on the Board through the 2018 Annual Meeting of Stockholders, including an annual cash retainer and an annual stock option grant, in a manner consistent with the Company's compensation program for other non-employee directors. For purposes of clarity, the Parties agree that (i) Mr. Murphy will be entitled to an annual cash retainer of \$50,000 for Board membership, payable on a fiscal quarterly basis (and pro-rata for partial fiscal quarters) and (ii) an annual long-term equity award commencing at the 2017 Annual Meeting of Stockholders.

3. Consulting Services; Separation Consideration; Bring-Down Release.

A. Contingent upon this Agreement becoming effective as provided in Section 4.D. below, the Company agrees to retain Murphy, and Murphy agrees to serve, as a consultant to the Company pursuant to the terms of the Consulting Agreement attached hereto as **Exhibit A** (the "**Consulting Agreement**"), effective upon the Separation Date.

B. Contingent upon this Agreement becoming effective as provided in Section 4.D. below and in consideration for Murphy's obligations and promises in this Agreement and in the Consulting Agreement, the Company agrees to pay Murphy \$65,625 per month (less applicable tax and other withholdings, if any) during the twelve (12) month period following the Separation Date, with the first payment to be made on the Separation Date and then monthly thereafter.

C. In addition, in consideration for Murphy's execution of the Bring-Down Release attached hereto as **Exhibit B** (the "**Bring-Down Release**"), the Company agrees to pay Murphy \$262,500 (less applicable tax and other withholdings, if any) in a lump sum on and contingent upon the Effective Date (as defined therein) of the Bring-Down Release.

D. Contingent upon this Agreement becoming effective as provided in Section 4.D. below, the Company agrees that if Murphy timely elects to continue his participation in Company's group health insurance

plans pursuant to the Consolidated Omnibus Budget Reconciliation Act (“**COBRA**”), then Company shall pay the COBRA premium(s) on Murphy’s, and his eligible dependents’, behalf for eighteen (18) months after the Separation Date (the “**COBRA Period**”). If Murphy desires to continue his participation beyond the end of the COBRA Period, and is eligible to continue his participation pursuant to COBRA, he understands and agrees that he shall be fully responsible for making the necessary premium payments in order to continue such coverage. Nothing herein shall be deemed to permit Murphy to continue participating in any life insurance, long-term disability benefits, accidental death and dismemberment or other plans maintained by Company after the Separation Date. Nothing herein shall limit the right of Company to change the provider and/or the terms of its group health insurance plans at any time hereafter.

4. Release of Claims.

A. Murphy agrees that the consideration offered by the Company to Murphy pursuant to the terms of this Agreement and the Consulting Agreement represents settlement in full of all outstanding obligations owed to Murphy by the Company and its current and former officers, directors, employees, agents, investors, attorneys, stockholders, administrators, affiliates, benefit plans, plan administrators, insurers, trustees, divisions, and subsidiaries, and predecessor and successor corporations and assigns (collectively, the “**Releasees**”). Except as provided below, Murphy, on his own behalf and on behalf of his respective heirs, family members, executors, agents, and assigns, hereby and forever releases the Releasees from, and agrees not to sue concerning, or in any manner to institute, prosecute, or pursue, any claim, complaint, charge, duty, obligation, demand, or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Murphy may possess against any of the Releasees arising from any omissions, acts, facts, or damages that have occurred up until and including the Effective Date, including, without limitation:

i. any and all claims relating to or arising from Murphy’s employment relationship with the Company and the termination of that relationship, including any and all claims relating to the Severance Plan;

ii. any and all claims relating to, or arising from, Murphy’s right to purchase, actual purchase or receipt of shares of stock of the Company, including, without limitation, any claims for fraud, misrepresentation, breach of fiduciary duty, breach of duty under applicable state corporate law, and securities fraud under any state or federal law;

iii. any and all claims for wrongful discharge of employment; termination in violation of public policy; discrimination; harassment; retaliation; breach of contract, both express and implied; breach of covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; fraud; negligent or intentional misrepresentation; negligent or intentional interference with contract or prospective economic advantage; unfair business practices; defamation; libel; slander; negligence; personal injury; assault; battery; invasion of privacy; false imprisonment; conversion; and disability benefits;

iv. any and all claims for violation of any federal, state, or municipal statute, including, but not limited to, Title VII of the Civil Rights Act of 1964; the Civil Rights Act of 1991; the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Equal Pay Act; the Fair Labor Standards Act; the Fair Credit Reporting Act; the Age Discrimination in Employment Act of 1967; the Older Workers Benefit Protection Act; the Employee Retirement Income Security Act of 1974; the Worker Adjustment and Retraining Notification Act; the Family and Medical Leave Act; the Sarbanes-Oxley Act of 2002; the Immigration Control and Reform Act; the California Family Rights Act; the California Labor Code; the California Workers’ Compensation Act; and the California Fair Employment and Housing Act;

v. any and all claims for violation of the federal or any state constitution;

vi. any and all claims arising out of any other laws and regulations relating to employment or employment discrimination;

vii. any claim for any loss, cost, damage, or expense arising out of any dispute over the nonwithholding or other tax treatment of any of the proceeds received by Murphy as a result of this Release; and

viii. any and all claims for attorneys' fees and costs.

B. Murphy agrees that the release set forth in this Section 4 shall be and remain in effect in all respects as a complete general release as to the matters released. This release does not extend to any of the Company's obligations to Murphy that arise under this Agreement after the Effective Date. The release set forth in this Section 4 does not release claims that cannot be released as a matter of law, including, but not limited to, Murphy's right to file a charge with or participate in a charge by the Equal Employment Opportunity Commission, or any other local, state, or federal administrative body or government agency that is authorized to enforce or administer laws related to employment, against the Company (with the understanding that any such filing or participation does not give Murphy the right to recover any monetary damages against the Company; Murphy's release of claims herein bars Murphy from recovering such monetary relief from the Company). Notwithstanding the foregoing, Murphy acknowledges that any and all disputed wage claims that are released herein shall be subject to binding arbitration as provided in Section 13 below, except as required by applicable law. Murphy represents that he has made no assignment or transfer of any right, claim, complaint, charge, duty, obligation, demand, cause of action, or other matter waived or released by this Section 4.

Notwithstanding the foregoing, nothing in this Agreement shall, or is intended to, release or impair any of the following:

(a) Murphy's rights to receive the consideration and benefits provided under this Agreement or the Consulting Agreement;

(b) Murphy's rights and the obligations of the Company under the Equity Awards;

(c) Murphy's vested rights under any 401k, retirement, or profit sharing plan of the Company; or

(d) Murphy's rights to be defended and indemnified pursuant to California Labor Code Section 2802 or other law, the Certificate of Incorporation or Bylaws of the Company, and the Indemnification Agreement (including the right to receive advancements of expenses in accordance with any of the foregoing), or any policy of directors' and officers' liability insurance.

C. Murphy acknowledges that he is waiving and releasing any rights he may have under the Age Discrimination in Employment Act of 1967 ("**ADEA**"), and that this waiver and release is knowing and voluntary. Murphy agrees that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the Effective Date. Murphy acknowledges that the consideration provided by the Company under this Agreement and the Consulting Agreement for this waiver and release is in addition to anything of value to which Murphy was already entitled. Murphy further acknowledges that he has been advised by this writing that: (i) he should consult with an attorney prior to executing this Agreement and the Consulting Agreement; (ii) he has twenty-one (21) days within which to consider this Agreement and the Consulting Agreement; (iii) he has seven (7) days following his execution of this Agreement to revoke this Agreement and the Consulting Agreement; (iv) this Agreement and the Consulting Agreement shall not be effective until after the revocation period has expired; and (v) nothing in this Agreement or the Consulting Agreement prevents or precludes Murphy from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties, or costs for doing so, unless specifically authorized by federal law. In the event Murphy signs this and returns it to the Company in less than the 21-day period identified above, Murphy hereby acknowledges that he/she has freely and voluntarily chosen to waive the time period allotted for considering this Agreement and the Consulting Agreement.

D. Murphy understands that this Agreement and the Consulting Agreement shall be null and void if not executed by him within twenty one (21) days. Murphy has seven (7) days after Murphy signs this Agreement to revoke this Agreement and the Consulting Agreement. This Agreement and the Consulting

Agreement will become effective on the eighth (8th) day after Murphy signs this Agreement, so long as it has not been revoked by Murphy before that date (the "*Effective Date*").

5. California Civil Code Section 1542.

Murphy acknowledges that he has been advised to consult with legal counsel and is familiar with the provisions of California Civil Code Section 1542, a statute that otherwise prohibits the release of unknown claims, which provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

Murphy, being aware of said code section, agrees to expressly waive any rights he may have thereunder, as well as under any other statute or common law principles of similar effect.

6. Execution of IAA and Continuing Obligations.

A. In connection with the execution of this Agreement and in exchange for the consideration offered by the Company to Murphy pursuant to the terms of this Agreement and the Consulting Agreement, Murphy agrees to execute the Invention Assignment Agreement in the form attached hereto as **Exhibit C** (the "*IAA*"). Murphy agrees to comply with his continuing obligations set forth in the IAA, including but not limited to, promises not to disclose and to protect all confidential and proprietary information of Company.

B. Murphy and the Company entered into an Indemnification Agreement in connection with Murphy's service as an officer and director of the Company (the "*Indemnification Agreement*"). The Company agrees to comply with its continuing obligations set forth in the Indemnification Agreement, as amended by the provisions of Section 1.H above.

C. In connection with Mr. Murphy becoming a non-employee director and being entitled to compensation as a director, Murphy agrees to execute and be subject to the Director Confidentiality Agreement attached hereto as **Exhibit D**.

7. No Pending Lawsuits; No Cooperation; No Admission.

A. Murphy represents that he has no lawsuits, claims, or actions pending in his name, or on behalf of any other person or entity, against the Company or any of the other Releasees.

B. Murphy agrees that he will not knowingly encourage, counsel, or assist any attorneys or their clients in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints by any third party against the Company or any of the Releasees, unless under a subpoena or other court order to do so or as related directly to the ADEA waiver in this Agreement. Murphy agrees both to immediately notify the Company upon receipt of any such subpoena or court order, and to furnish, within three (3) business days of its receipt, a copy of such subpoena or other court order. If approached by anyone for counsel or assistance in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints against the Company or any of the Releasees, Murphy shall state no more than that he cannot provide counsel or assistance.

C. Murphy understands and acknowledges that the release in Section 4 above constitutes a compromise and settlement of any and all actual or potential disputed claims by Murphy. No action taken by the Company hereto, either previously or in connection with this Agreement or the Consulting Agreement, shall be deemed or construed to be (i) an admission of the truth or falsity of any actual or potential claims or (ii) an acknowledgment or admission by the Company of any fault or liability whatsoever to Murphy or to any third party.

8. Standstill.

A. From the date of this Agreement until the adjournment of the Company's 2017 Annual Meeting of Stockholders (the "*Standstill Period*"), neither Murphy nor any of his Affiliates (as hereinafter defined), directly or indirectly, shall:

i. solicit proxies or written consents of holders of Company capital stock or become a "participant" (as such term is defined in Instruction 3 to Item 4 of Schedule 14A promulgated under the Securities Exchange Act of 1934, as amended and the rules and regulations promulgated thereunder (the "*Exchange Act*") in or encourage, advise or influence any other person in any "solicitation" of any proxy, consent or other authority (as such terms are defined under the Exchange Act) with respect to any shares of the Company's capital stock (other than such encouragement, advice or influence as is consistent with the Board's recommendation in connection with such matter); or encourage any other person to solicit or withhold any proxy, consent or other authority with respect to any shares of the Company's capital stock or otherwise advise, encourage or influence any other person with respect to voting any shares of the Company's capital stock (other than such encouragement, advice or influence as is consistent with the Board's recommendation in connection with such matter);

ii. form or join in a partnership, limited partnership, syndicate or other group, including a "group" as defined under Section 13(d) of the Exchange Act, with respect to the Company's capital stock or otherwise support or participate in any effort by any third party with respect to the matters set forth in Section 8.A.i above;

iii. present any proposal for consideration for action by Company stockholders or seek the removal of any member of the Board or propose any nominee for election to the Board or seek representation on the Board at the 2017 Annual Meeting of Stockholders, or at any other meeting of the Company stockholders held prior to the 2017 Annual Meeting of Stockholders;

iv. grant any proxy, consent or other authority to vote with respect to any matters (other than to the named proxies included in the Company's proxy card for any meeting of Company stockholders) or deposit any shares of Company capital stock in a voting trust or subject them to a voting agreement or other arrangement of similar effect with respect to any meeting of Company stockholders or action by written consent (excluding customary brokerage accounts, margin accounts, prime brokerage accounts and the like);

v. without the prior approval of the Board, separately or in conjunction with any other person or entity in which it is or proposes to be either a principal, partner or financing source, publicly propose or participate in, effect or seek to effect, any extraordinary corporate transaction, tender offer or exchange offer, merger, acquisition, reorganization, restructuring, recapitalization, change in the Company's dividend policy, change in the Company's certificate of incorporation or bylaws, business combination involving Company or a material amount of the assets or businesses of Company or any action which would result in a class of securities of Company being delisted from a national securities exchange or to ceasing to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association or becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Exchange Act or encourage any other person in any such activity (each, an "*Extraordinary Transaction*"); provided, however, that this clause (v) shall not preclude Murphy or a Murphy Affiliate from tendering (or failing to tender) any securities of the Company into any tender or exchange offer or from voting for or against any transaction any securities of the Company with respect to any Extraordinary Transaction;

vi. publicly disclose any intention, plan or arrangement inconsistent with the foregoing;

vii. instigate, encourage, join, act in concert with or assist any third party to do any of the foregoing;

viii. take any action that would reasonably be expected to require Company to make a public announcement regarding the possibility of any of the events described in this Section 8.A;

ix. request the Company or the Board or any of their respective representatives to amend or waive any provision of this Section 8.A (including this sentence); or

x. For purposes of this Agreement, the term "Affiliate" shall have the meaning set forth in Rule 12b-2 promulgated under the Exchange Act.

The foregoing provisions of this Section 8.A shall not be deemed to prohibit Murphy, solely in his capacity as a director, from communicating with the Company's directors or CEO privately regarding or privately advocating with the Company's directors or CEO for or against any proposal recommended by the Board for consideration at the 2017 Annual Meeting of Stockholders

Notwithstanding the foregoing, the Standstill Period shall automatically terminate upon the earlier of: (i) October 31, 2017, (ii) the date the Company consummates, enters into or the Board resolves to pursue an Extraordinary Transaction or a Change of Control (as such term is defined in the Stock Plan) or (iii) the Company is found to have materially breached this Agreement or the Consulting Agreement as determined by binding arbitration in accordance with Section 13.A below, following a notice of breach and an opportunity to cure any such in accordance with Section 11.C below.

9. Murphy Restrictive Covenants.

By executing this Agreement, Murphy agrees to abide by the following restrictive covenants as consideration for the Company's obligations under this Agreement and the Consulting Agreement, and acknowledges that the provisions and covenants contained in this Section 9 are ancillary and material to the terms of the Agreement and the Consulting Agreement and that the limitations contained in this Section 9 are reasonable in geographic and temporal scope and do not impose a greater restriction or restraint than is necessary to protect the goodwill and other legitimate business interests of the Company. Murphy also acknowledges and agrees that the provisions of this Section 9 do not adversely affect his ability to earn a living in any capacity that does not violate the covenants contained herein.

A. Confidential Information. Murphy shall hold in a fiduciary capacity for the benefit of the Company and all of its subsidiaries, partnerships, joint ventures, limited liability companies, and other affiliates (collectively, the "**Company Group**"), all secret or confidential information, knowledge or data relating to the Company and its businesses (including, without limitation, any proprietary and not publicly available information concerning any processes, methods, trade secrets, intellectual property, research secret data, costs, names of users or purchasers of their respective products or services, business methods, operating or manufacturing procedures, or programs or methods of promotion and sale) that Murphy has obtained or obtains during Murphy's services to the Company and that is not public knowledge (other than as a result of Murphy's violation of this Section 9.A ("**Confidential Information**")). Murphy shall not communicate, divulge or disseminate Confidential Information at any time during or after Murphy's employment and/or service as a consultant with the Company, except with prior written consent of a corporate officer of Company, or as otherwise required by law or legal process. All records, files, memoranda, reports, customer lists, drawings, plans, documents and the like that Murphy uses, prepares or comes into contact with during the course of Murphy's employment shall remain the sole property of the Company, and shall be turned over to the Company upon termination of Murphy's employment.

B. Non-Recruitment of Company Group Employees, Etc. From the date of this Agreement and for twelve (12) months from the Separation Date (the "**Restricted Period**"), Murphy shall not (i) solicit or participate in the solicitation of any person who was employed by the Company at any time during the six (6)-month period prior to the Separation Date to leave the employ of the Company. Murphy further agrees that, during the Restricted Period, if an employee of the Company contacts Murphy about prospective employment, Murphy will inform that employee that Murphy cannot discuss the matter further without informing the Company.

C. Non-Solicitation of Business. Murphy acknowledges and agrees that the identities of the Company's customers and any information regarding the Company's customers is confidential and constitutes trade secrets. In recognition of the confidential and trade secret nature of information regarding the Company's customers, Murphy agrees that during the Restricted Period, that he shall not (either directly or indirectly or as an officer, agent, employee, partner or director of any other company, partnership or entity) solicit on behalf of any Competitor of the

Company (as defined below) the business of (i) any customer of the Company during the time of Murphy's employment or as of the date of Murphy's termination of employment, or (ii) any potential customer of the Company which Murphy knew to be an identified, prospective purchaser of services or products of the Company as of the date of Murphy's termination of employment. A "**Competitor of the Company**" means any Person (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) that is engaged or preparing to engage in any design, development, sale, promotion, production, marketing, licensing, distribution or provision of any service, technology, product or product feature that is, directly or indirectly, or is intended to be, competitive with one or more services, technologies, products or product features provided by the Company (each, a "**Competitive Activity**").

D. Investment in Competitor. During the Restricted Period, Murphy shall not invest in (other than in a publicly traded company with a maximum investment of no more than one percent (1%) of outstanding shares), counsel, advise, or be otherwise engaged or employed by, any Competitor of the Company.

E. Further Actions. Murphy further agrees that during the Restricted Period, Murphy shall, upon written request, assist and cooperate with the Company with regard to any matter or project in which Murphy was involved during Murphy's employment with the Company, including but not limited to any litigation that may be pending or arise after such termination of employment (other than any litigation in which the Company asserts a claim against Murphy or alleges that Murphy breached this Agreement or the Consulting Agreement). After the end of the Restricted Period, the Company shall not unreasonably request such cooperation of Murphy and shall cooperate with Murphy in scheduling any assistance by Murphy taking into account Murphy's business and personal affairs and shall provide reasonable compensation to Murphy for any lost wages and/or expenses associated with such cooperation and assistance.

F. Inventions. All plans, discoveries and improvements, whether patentable or unpatentable, made or devised by Murphy, whether alone or jointly with others, from the date of Murphy's initial employment by the Company and continuing until the end of any period during which Murphy is employed by the Company, relating or pertaining in any way to Murphy's employment with or the business of the Company (each, an "**Invention**"), shall be promptly disclosed in writing to the Company's General Counsel and are hereby transferred to and shall redound to the benefit of the Company and shall become and remain its sole and exclusive property. Murphy agrees to execute any assignment to the Company or its nominee, of Murphy's entire right, title and interest in and to any Invention and to execute any other instruments and documents requisite or desirable in applying for and obtaining patents, trademarks or copyrights, at the Company's expense, with respect thereto in the United States and in all foreign countries, that may be required by the Company. Murphy further agrees to cooperate, while employed and thereafter, to the extent and in the manner required by the Company, in the prosecution or defense of any patent or copyright claims or any litigation, or other proceeding involving any trade secrets, processes, discoveries or improvements covered by this covenant, but all necessary expenses thereof shall be paid by the Company. Murphy agrees to disclose promptly in writing to the Company all innovations (including any Inventions) conceived, reduced to practice, created, derived, developed, or made by Murphy during the term of employment and for three months thereafter, whether or not Murphy believes such innovations are subject to this Section 9.F, to permit a determination by the Company as to whether or not the innovations should be the property of the Company. Any such information will be received in confidence by the Company.

G. Acknowledgement and Enforcement. Murphy acknowledges and agrees that: (i) the purpose of the foregoing covenants in this Section 9 are to protect the goodwill, trade secrets and other Confidential Information of the Company; (ii) because of the nature of the business in which the Company is engaged and because of the nature of the Confidential Information to which Murphy has access, the Company would suffer irreparable harm and it would be impractical and excessively difficult to determine the actual damages of the Company in the event Murphy breached any of the covenants of this Section 9; and (iii) remedies at law (such as monetary damages) for any breach of Murphy's obligations under this Section 9 would be inadequate. Murphy therefore agrees and consents that if Murphy commits any breach of a covenant under this Section 9 during the applicable period of restriction specified therein as determined in good faith by the Board, the Company shall (i) immediately be entitled to cease providing the consideration provided to Murphy under this Agreement and the Consulting Agreement and to obtain damages, except as prohibited by law, and (ii) have the right (in addition to, and not in lieu of, any other right or that may be available to it) to seek temporary and permanent injunctive relief from a court of competent jurisdiction, without posting any bond or other security and without the necessity of proof of actual damage.

10. Mutual Non Disparagement.

A. By Murphy. Murphy shall at all times during the Restricted Period refrain from making statements, written or oral, that denigrate, disparage or defame the goodwill or reputation of the Company, the Board or the officers, directors or employees of the Company, except as required by legal process. Murphy further agrees not to make any negative statement to third parties relating to his employment or any aspect of the businesses of the Company and not to make any statements to third parties about the circumstances of Murphy's separation from the Company, or about the Company or its trustees, directors, officer, security holders, partners, agents or former or current employees and directors, except as required by legal process. The foregoing provisions of this Section 10.A shall not, and are not intended to, restrict Murphy from making objective statements that reflect his view, as a stockholder, with respect to factual matters concerning specific acts or determinations of the Company occurring after the date of this Agreement (subject to confidentiality obligations).

B. By the Company. The Company's officers and directors shall each at all times during the Restricted Period refrain from making statements, written or oral, that denigrate, disparage or defame the goodwill or reputation of Murphy, except as required by legal process. The Company's officers and directors further agree not to make any negative statement to third parties relating to Murphy's employment or Murphy's separation from the Company, except as required by legal process or required to comply with the Company's reporting obligations as a publicly traded company. The foregoing provisions of this Section 10.B shall not, and are not intended to, restrict the Company or the Board from making objective statements that reflect their view with respect to factual matters concerning specific acts or determinations of the Company, its directors, officers or stockholders occurring after the date of this Agreement (subject to confidentiality obligations).

C. Breach. For purposes of clarity, any breach of this Section 10 by the Company or Murphy shall be governed by the provisions of Section 11, and not Section 10.G.

11. Breach of Agreement.

A. The Company acknowledges and agrees that any material breach of this Agreement or the Consulting Agreement, shall entitle Murphy to obtain damages, except as prohibited by law. Murphy acknowledges and agrees that any material breach of this Agreement as determined by the Board acting in good faith (other than Section 9, which shall be governed by Section 9.G), the Consulting Agreement or the IAA, unless such breach constitutes a legal action by Murphy challenging or seeking a determination in good faith of the validity of the waiver herein under the ADEA, shall entitle the Company immediately to cease providing the consideration provided to Murphy under this Agreement and the Consulting Agreement and to seek damages, except as prohibited by law.

B. The Company acknowledges and agrees that before Murphy shall be determined to have breached any provision or covenant contained in this Agreement, the Consulting Agreement or the IAA, Murphy shall have been given notice of any such alleged breach (including the grounds for the Company's determination in reasonable detail) and been given twenty (20) days after receipt of such notice of such breach to (i) cure or remedy any such breach that is reasonably susceptible of cure or remedy or (ii) provide the Company with support that Murphy did not breach this Agreement, the Consulting Agreement or the IAA. During this twenty (20) day notice period, Murphy will be afforded the opportunity to make a presentation to the Board regarding the matters referred to in the Company's notice.

C. The Company acknowledges and agrees that any material breach of this Agreement or the Consulting Agreement, shall entitle Murphy to obtain damages, except as prohibited by law. Murphy acknowledges and agrees that before the Company shall be determined to have breached any provision or covenant contained in this Agreement or the Consulting Agreement, the Company shall have been given notice of any such alleged breach (including the grounds for Murphy's determination in reasonable detail) and been given twenty (20) days after receipt of such notice of such breach to (i) cure or remedy any such breach that is reasonably susceptible of cure or remedy or (ii) provide Murphy with support that the Company did not breach this Agreement or the Consulting Agreement.

12. Legal Representation.

Murphy represents that he has had an opportunity to consult with an attorney, and has carefully read and understands the scope and effect of the provisions of this Agreement and the Consulting Agreement. Murphy has not relied upon any representations or statements made by the Company that are not specifically set forth in this Agreement or the Consulting Agreement. Murphy further acknowledges and agrees that Gunderson Dettmer (“**GD**”) is legal counsel for Company solely, and that he is not relying on the Company or GD for legal advice regarding this Agreement or the Consulting Agreement. The parties further acknowledge that they have entered into this Agreement and the Consulting Agreement voluntarily, without coercion, and based upon their own judgment and not in reliance upon any representations or promises made by the other party or parties, other than those contained within this Agreement or the Consulting Agreement.

13. Arbitration and Equitable Relief.

A. Arbitration. THE PARTIES AGREE THAT ANY AND ALL DISPUTES ARISING OUT OF THE TERMS OF THIS AGREEMENT, THEIR INTERPRETATION, AND ANY OF THE MATTERS HEREIN RELEASED, SHALL BE SUBJECT TO ARBITRATION IN SAN DIEGO COUNTY, BEFORE JUDICIAL ARBITRATION & MEDIATION SERVICES (“**JAMS**”), PURSUANT TO ITS EMPLOYMENT ARBITRATION RULES & PROCEDURES (“**JAMS RULES**”). THE ARBITRATOR MAY GRANT INJUNCTIONS AND OTHER RELIEF IN SUCH DISPUTES. THE ARBITRATOR SHALL ADMINISTER AND CONDUCT ANY ARBITRATION IN ACCORDANCE WITH CALIFORNIA LAW, INCLUDING THE CALIFORNIA CODE OF CIVIL PROCEDURE, AND THE ARBITRATOR SHALL APPLY SUBSTANTIVE AND PROCEDURAL CALIFORNIA LAW TO ANY DISPUTE OR CLAIM, WITHOUT REFERENCE TO ANY CONFLICT-OF-LAW PROVISIONS OF ANY JURISDICTION. TO THE EXTENT THAT THE JAMS RULES CONFLICT WITH CALIFORNIA LAW, CALIFORNIA LAW SHALL TAKE PRECEDENCE. THE DECISION OF THE ARBITRATOR SHALL BE FINAL, CONCLUSIVE, AND BINDING ON THE PARTIES TO THE ARBITRATION. THE PARTIES AGREE THAT THE PREVAILING PARTY IN ANY ARBITRATION SHALL BE ENTITLED TO INJUNCTIVE RELIEF IN ANY COURT OF COMPETENT JURISDICTION TO ENFORCE THE ARBITRATION AWARD. THE PARTIES TO THE ARBITRATION SHALL EACH PAY AN EQUAL SHARE OF THE COSTS AND EXPENSES OF SUCH ARBITRATION, AND EACH PARTY SHALL SEPARATELY PAY FOR ITS RESPECTIVE COUNSEL FEES AND EXPENSES; PROVIDED, HOWEVER, THAT THE ARBITRATOR SHALL AWARD ATTORNEYS’ FEES AND COSTS TO THE PREVAILING PARTY, EXCEPT AS PROHIBITED BY LAW. THE PARTIES HEREBY AGREE TO WAIVE THEIR RIGHT TO HAVE ANY DISPUTE BETWEEN THEM RESOLVED IN A COURT OF LAW BY A JUDGE OR JURY. NOTWITHSTANDING THE FOREGOING, THIS SECTION WILL NOT PREVENT EITHER PARTY FROM SEEKING INJUNCTIVE RELIEF (OR ANY OTHER PROVISIONAL REMEDY) FROM ANY COURT HAVING JURISDICTION OVER THE PARTIES AND THE SUBJECT MATTER OF THEIR DISPUTE RELATING TO THIS AGREEMENT AND THE AGREEMENTS INCORPORATED HEREIN BY REFERENCE. SHOULD ANY PART OF THE ARBITRATION AGREEMENT CONTAINED IN THIS PARAGRAPH CONFLICT WITH ANY OTHER ARBITRATION AGREEMENT BETWEEN THE PARTIES, THE PARTIES AGREE THAT THIS ARBITRATION AGREEMENT SHALL GOVERN.

B. Voluntary Nature of Agreement. MURPHY ACKNOWLEDGES AND AGREES THAT HE IS EXECUTING THIS AGREEMENT AND THE CONSULTING AGREEMENT VOLUNTARILY AND WITHOUT ANY DURESS OR UNDUE INFLUENCE BY THE COMPANY OR ANYONE ELSE. MURPHY FURTHER ACKNOWLEDGES AND AGREES THAT HE HAS CAREFULLY READ THIS AGREEMENT AND THE CONSULTING AGREEMENT AND THAT MURPHY HAS ASKED ANY QUESTIONS NEEDED FOR MURPHY TO UNDERSTAND THE TERMS, CONSEQUENCES AND BINDING EFFECT OF THIS AGREEMENT AND THE CONSULTING AGREEMENT AND FULLY UNDERSTANDS BOTH AGREEMENTS, INCLUDING THAT **MURPHY IS WAIVING HIS RIGHT TO A JURY TRIAL**. FINALLY, MURPHY AGREES THAT HE HAS BEEN PROVIDED AN OPPORTUNITY TO SEEK THE ADVICE OF AN ATTORNEY OF MURPHY’S CHOICE BEFORE SIGNING THIS AGREEMENT.

14. Miscellaneous.

A. Authority. The Company represents and warrants that the undersigned has the authority to act on behalf of the Company and to bind the Company and all who may claim through it to the terms and conditions of this Agreement and the Consulting Agreement. Murphy represents and warrants that he has the capacity to act on his/her own behalf and on behalf of all who might claim through him to bind them to the terms and conditions of this Agreement and the Consulting Agreement. Each Party warrants and represents that there are no liens or claims of lien or assignments in law or equity or otherwise of or against any of the claims or causes of action released herein.

B. Severability. In the event that any provision or any portion of any provision of this Agreement or the Consulting Agreement or any surviving agreement made a part hereof or thereof becomes or is declared by a court of competent jurisdiction or arbitrator to be illegal, unenforceable, or void, this Agreement and the Consulting Agreement shall continue in full force and effect without said provision or portion of provision.

C. Attorneys' Fees. Except with regard to a legal action challenging or seeking a determination in good faith of the validity of the waiver herein under the ADEA, in the event that either Party brings an action to enforce or effect its rights under this Agreement or the Consulting Agreement, the prevailing Party shall be entitled to recover its costs and expenses, including the costs of mediation, arbitration, litigation, court fees, and reasonable attorneys' fees incurred in connection with such an action.

D. Costs. The Parties shall each bear their own costs, attorneys' fees, and other fees incurred in connection with the preparation of this Agreement and the Consulting Agreement.

E. Entire Agreement. This Agreement, together with the Consulting Agreement, the IAA, the Indemnification Agreement, the Bring-Down Release, the Stock Plan and the Equity Awards, represents the entire agreement and understanding between the Company and Murphy concerning the subject matter of this Agreement and the Consulting Agreement and Murphy's employment with and separation from the Company and the events leading thereto and associated therewith, and supersedes and replaces any and all prior agreements and understandings concerning the subject matter of this Agreement and the Consulting Agreement and Murphy's relationship with the Company.

F. No Oral Modification. This Agreement may only be amended in a writing signed by Murphy and the Chair of the Compensation Committee.

G. Governing Law. This Agreement shall be governed by the laws of the State of California, without regard for choice-of-law provisions. Murphy consents to personal and exclusive jurisdiction and venue in the State of California.

H. Counterparts. This Agreement may be executed in counterparts and by facsimile, and each counterpart and facsimile shall have the same force and effect as an original and shall constitute an effective, binding agreement on the part of each of the undersigned.

I. Assignability. This Agreement and the Consulting Agreement are binding upon Murphy's heirs, executors, assigns, administrators, and other legal representatives, and will be for the benefit of the Company, its subsidiaries, its successors, and its assigns. Murphy may not sell, assign or delegate any rights or obligations under this Agreement or the Consulting Agreement. Notwithstanding anything to the contrary herein, the Company may assign this Agreement and the Consulting Agreement and its rights and obligations under this Agreement and the Consulting Agreement to any successor to all or substantially all of Company's relevant assets, whether by merger, consolidation, reorganization, reincorporation, sale of assets or stock, change of control or otherwise.

J. Notices. Any notice or other communication required or permitted by this Agreement to be given to a Party shall be in writing and shall be deemed given (i) if delivered personally or by commercial messenger or courier service, (ii) when sent by confirmed facsimile or email, or (iii) if mailed by U.S. registered or certified mail (return receipt requested), to the Party at the Party's address written below or at such other address as the Party may have previously specified by like notice. If by mail, delivery shall be deemed effective three business days after mailing in accordance with this Section 14.J.

If to the Company, to:
Organovo Holdings, Inc.
6275 Nancy Ridge Road
Suite 110
San Diego, CA 92121
Attention: General Counsel

The one exception to the notice requirement will be the delivery of invoices, or requests for expense reimbursement, by the Murphy to the Company. Invoices and requests for expense reimbursement will be delivered by Murphy via e-mail to: with a copy to.

If to Murphy, to the address for notice on the first page to this Agreement and electronically to or, to such future address as Murphy shall update in writing.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the date first written above.

MURPHY

By: /s/ Keith Murphy

Name: Keith Murphy

ORGANOVO HOLDINGS, INC.

By: /s/ Kirk Malloy

Name: Kirk Malloy

Title: Lead Director

SCHEDULE A
LIST OF EQUITY AWARDS

Schedule A – List of Equity Awards

Outstanding Stock Options

	Date of Grant	Exercise Price	Number of Shares	Vesting Schedule
Option	02/13/13	\$4.585	24,690	Fully vested
Option	03/12/13	\$3.93	215,000	Fully vested
Option	08/28/13	\$5.600	54,654	Fully vested
Option	02/13/14	\$9.92	27,105	Fully vested
Option	02/19/14	\$9.86	27,307	Fully vested
Option	02/19/14	\$9.86	550,000	25%, 12 quarterly installments, VCD 02/19/14
Option	02/13/15	\$6.34	28,008	Fully vested
Option	06/04/15	\$4.92	465,000	25%, 12 quarterly installments, VCD 06/04/15
Option	02/16/16	\$2.04	24,690	Fully vested
Option	07/11/16	\$3.99	415,000	16 quarterly installments, VCD 05/15/16

Restricted Stock Unit

	Date of Grant	Initial Number of Shares	Number of Shares Previously Delivered	Vesting Schedule
RSU	07/11/16	208,000	39,000	16 quarterly installments, VCD 05/15/16

EXHIBIT A
CONSULTING AGREEMENT

ORGANOVO HOLDINGS, INC.

CONSULTING AGREEMENT

This Consulting Agreement (this "**Agreement**") is made and entered into by and between Organovo Holdings, Inc., a Delaware corporation, and its wholly-owned subsidiary, Organovo, Inc., a Delaware corporation, with their principal place of business at 6275 Nancy Ridge Road, San Diego, California, 92121 (Organovo Holdings, Inc. and Organovo, Inc., shall be collectively referred to herein as, the "**Company**"), and Keith Murphy, an individual with his principal place of business at ("**Consultant**") (each herein referred to individually as a "**Party**," or collectively as the "**Parties**"). All capitalized terms used in this Agreement not otherwise defined herein shall have the meanings set forth the Separation Agreement, except as otherwise specified.

A. The Parties have executed this agreement in connection with their execution of the Continued Service, Consulting and Separation Agreement, dated April 7, 2017 (the "**Separation Agreement**").

B. Contingent upon the Separation Agreement becoming effective pursuant to its terms and in consideration for Consultant's obligations and promises in this Agreement and in the Separation Agreement, the Company agrees to retain Consultant as an independent contractor to perform consulting services for the Company, and Consultant agrees to perform such services, on the terms described below, effective as of the Separation Date (as defined in the Separation Agreement).

NOW, THEREFORE, in consideration of the mutual promises contained herein and in the Separation Agreement, the Parties agree as follows:

1. Services and Compensation

Contingent upon the Separation Agreement becoming effective pursuant to its terms, Consultant agrees to perform the services described in **Exhibit A** (the "**Services**") for the Company (or its designee), and the Company agrees to pay Consultant the compensation described in **Exhibit A** for Consultant's performance of the Services, during the Term (as defined below).

2. Confidentiality

A. **Definition of Confidential Information.** "**Confidential Information**" means any information (including any and all combinations of individual items of information) that relates to the actual or anticipated business and/or products, research or development of the Company, its affiliates or subsidiaries, or to the Company's, its affiliates' or subsidiaries' technical data, trade secrets, or know-how, including, but not limited to, research, product plans, business plans, financial, accounting, tax or other information regarding the Company's, its affiliates' or subsidiaries' products or services and markets therefor, customer lists and customers (including, but not limited to, customers of the Company on whom Consultant called or with whom Consultant became acquainted during the Term of this Agreement), software, developments, inventions, discoveries, ideas, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances, and other business information disclosed by the Company, its affiliates or subsidiaries, either directly or indirectly, in writing, orally or by drawings or inspection of premises, parts, equipment, or other property of Company, its affiliates or subsidiaries. Notwithstanding the foregoing, Confidential Information shall not include any such information which Consultant can establish (i) was publicly known or made generally available prior to the time of disclosure to Consultant; (ii) becomes publicly known or made generally available after disclosure to Consultant through no wrongful action or inaction of Consultant; or (iii) is in the rightful possession of Consultant, without confidentiality obligations, at the time of disclosure as shown by Consultant's then-contemporaneous written records; provided that any combination of individual items of information shall not be deemed to be within any of the foregoing exceptions merely because one or more of the individual items are within such exception, unless the combination as a whole is within such exception.

B. **Nonuse and Nondisclosure.** During and after the Term of this Agreement, Consultant will hold in the strictest confidence, and take all reasonable precautions to prevent any unauthorized use or

disclosure of Confidential Information, and Consultant will not (i) use the Confidential Information for any purpose whatsoever other than as necessary for the performance of the Services on behalf of the Company, or (ii) disclose the Confidential Information to any third party without the prior written consent of an authorized representative of Company, except that Consultant may disclose Confidential Information to the extent compelled by applicable law; *provided however*, prior to such disclosure, Consultant shall provide prior written notice to Company and seek a protective order or such similar confidential protection as may be available under applicable law. Consultant agrees that no ownership of Confidential Information is conveyed to the Consultant. Without limiting the foregoing, Consultant shall not use or disclose any Company property, intellectual property rights, trade secrets or other proprietary know-how of the Company to invent, author, make, develop, design, or otherwise enable others to invent, author, make, develop, or design identical or substantially similar designs as those developed under this Agreement for any third party. Consultant agrees that Consultant's obligations under this Section 2.B. shall continue after the termination of this Agreement.

C. **Other Client Confidential Information.** Consultant agrees that Consultant will not improperly use, disclose, or induce the Company to use any proprietary information or trade secrets of any former or concurrent employer of Consultant or other person or entity with which Consultant has an obligation to keep in confidence. Consultant also agrees that Consultant will not bring onto the Company's premises or transfer onto the Company's technology systems any unpublished document, proprietary information, or trade secrets belonging to any third party unless disclosure to, and use by, the Company has been consented to in writing by such third party.

D. **Third Party Confidential Information.** Consultant recognizes that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. Consultant agrees that at all times during the Term of this Agreement and thereafter, Consultant owes the Company and such third parties a duty to hold all such confidential or proprietary information in the strictest confidence and not to use it or to disclose it to any person, firm, corporation, or other third party except as necessary in carrying out the Services for the Company consistent with the Company's agreement with such third party.

3. Ownership

A. **Assignment of Inventions.** Consultant agrees that all right, title, and interest in and to any copyrightable material, notes, records, drawings, designs, inventions, improvements, developments, discoveries, ideas and trade secrets conceived, discovered, authored, invented, developed or reduced to practice by Consultant, solely or in collaboration with others, during the Term of this Agreement and arising out of, or in connection with, performing the Services under this Agreement and any copyrights, patents, trade secrets, mask work rights or other intellectual property rights relating to the foregoing (collectively, "**Inventions**"), are the sole property of the Company. Consultant also agrees to promptly make full written disclosure to the Company of any Inventions and to deliver and assign (or cause to be assigned) and hereby irrevocably assigns fully to the Company all right, title and interest in and to the Inventions.

B. **Third Party Materials.** Subject to Section 3.A, Consultant will provide the Company with prior written notice if, in the course of performing the Services, Consultant incorporates into any Invention or utilizes in the performance of the Services any invention, discovery, idea, original works of authorship, development, improvements, trade secret, concept, or other proprietary information or intellectual property right owned by Consultant or in which Consultant has an interest, that has not previously been assigned to the Company during Consultant's employment with the Company. Company is hereby granted a nonexclusive, royalty-free, perpetual, irrevocable, transferable, worldwide license (with the right to grant and authorize sublicenses) to make, have made, use, import, offer for sale, sell, reproduce, distribute, modify, adapt, prepare derivative works of, display, perform, and otherwise exploit such Inventions, without restriction, including, without limitation, as part of or in connection with such Invention, and to practice any method related thereto. Consultant will not incorporate any invention, discovery, idea, original works of authorship, development, improvements, trade secret, concept, or other proprietary information or intellectual property right owned by any third party (in which Consultant has no interest) into any Invention without Company's prior written permission.

C. **Moral Rights.** Any assignment to the Company of Inventions includes all rights of attribution, paternity, integrity, modification, disclosure and withdrawal, and any other rights throughout the world

that may be known as or referred to as “moral rights,” “artist’s rights,” “droit moral,” or the like (collectively, “*Moral Rights*”). To the extent that Moral Rights cannot be assigned under applicable law, Consultant hereby waives and agrees not to enforce any and all Moral Rights, including, without limitation, any limitation on subsequent modification, to the extent permitted under applicable law.

D. ***Maintenance of Records.*** Consultant agrees to keep and maintain adequate, current, accurate, and authentic written records of all Inventions made by Consultant in connection with performing Services under this Agreement (solely or jointly with others) during the Term of this Agreement, and for a period of three (3) years thereafter. The records will be in the form of notes, sketches, drawings, electronic files, reports, or any other format that is customary in the industry and/or otherwise specified by the Company. Such records are and remain the sole property of the Company at all times and upon Company’s request, Consultant shall deliver (or cause to be delivered) the same.

E. ***Further Assurances.*** Consultant agrees to assist Company, or its designee, at the Company’s expense, in every proper way to secure the Company’s rights in Inventions in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments that the Company may deem necessary in order to apply for, register, obtain, maintain, defend, and enforce such rights, and in order to deliver, assign and convey to the Company, its successors, assigns and nominees the sole and exclusive right, title, and interest in and to all Inventions and testifying in a suit or other proceeding relating to such Inventions. Consultant further agrees that Consultant’s obligations under this Section 3.E shall continue after the termination of this Agreement.

F. ***Attorney-in-Fact.*** Consultant agrees that, if the Company is unable because of Consultant’s unavailability, dissolution, mental or physical incapacity, or for any other reason, to secure Consultant’s signature with respect to any Inventions, including, without limitation, for the purpose of applying for or pursuing any application for any United States or foreign patents or mask work or copyright registrations covering the Inventions assigned to the Company in Section 3.A, then Consultant hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as Consultant’s agent and attorney-in-fact, to act for and on Consultant’s behalf to execute and file any papers and oaths and to do all other lawfully permitted acts with respect to such Inventions to further the prosecution and issuance of patents, copyright and mask work registrations with the same legal force and effect as if executed by Consultant. This power of attorney shall be deemed coupled with an interest, and shall be irrevocable.

4. Conflicting Obligations

Consultant represents and warrants that Consultant has no agreements, relationships, or commitments to any other person or entity that conflict with the provisions of this Agreement, Consultant’s obligations to the Company under this Agreement, and/or Consultant’s ability to perform the Services. Consultant will not enter into any such conflicting agreement during the Term of this Agreement.

5. Return of Company Materials

Upon the termination of this Agreement, or upon Company’s earlier request, Consultant will immediately deliver to the Company, and will not keep in Consultant’s possession, recreate, or deliver to anyone else, any and all Company property, including, but not limited to, Confidential Information, tangible embodiments of the Inventions, all devices and equipment belonging to the Company, all electronically-stored information and passwords to access such property, those records maintained pursuant to Section 3.D and any reproductions of any of the foregoing items that Consultant may have in Consultant’s possession or control.

6. Reports

Consultant agrees that Consultant will periodically keep the Company advised as to Consultant’s progress in performing the Services under this Agreement when requested by the Company to so do, with a frequency not greater than once a month. Requests by the Company will be in writing, at least one week prior to the required

delivery date of any such progress report. The Company and Consultant agree that the reasonable time expended in preparing such written reports will be considered time devoted to the performance of the Services.

7. Term and Termination

A. **Effective Date.** Consultant understands that this Agreement shall be null and void and shall not be effective unless and until the Separation Agreement becomes effective in accordance with its terms (the “**Effective Date**”).

B. **Term.** The term of this Agreement will begin on the Separation Date (as defined in the Separation Agreement) and will continue for a period of twelve (12) months thereafter (the “**Term**”).

C. **Termination.** This Agreement will terminate upon the expiration of the Term. The Company may terminate the Agreement with or without Cause (as defined below), upon providing Consultant with written notice of such termination pursuant to Section 12.G of this Agreement (the “**Termination Notice**”). In the event the Company terminates this Agreement without Cause, the Company shall pay Consultant all amounts that would have been paid under the full Term of the Agreement within ten (10) business days of the Termination Notice. For purposes of this Agreement, if the Company undergoes a Change in Control (as defined below) or a Default Event (as defined below), the Company shall be deemed to have terminated the Consultant without Cause on the occurrence of such event. In the event the Company elects to terminate this Agreement for Cause, the Company shall provide Consultant with the basis for such termination in the Termination Notice and provide Consultant with a thirty (30) day cure period, if the basis for such termination for Cause is subject to Cure. In the event of a Termination with Cause, no further payments will be due under the Agreement after the date of the Termination Notice, unless Consultant has cured the basis for such termination for Cause, if possible, within the thirty (30) day cure period. The Company’s determination to terminate Consultant for Cause, and any subsequent determination that Consultant has not timely cured, or cannot cure, the basis for such termination for Cause, must be made by the Company’s Board of Directors (acting in good faith by majority vote).

D. **Survival.** Upon any termination, all rights and duties of the Company and Consultant toward each other shall cease except:

(1) The Company will pay, within ten (10) days after the effective date of termination, all amounts owing to Consultant for Services completed and accepted by the Company prior to the termination date and related reimbursable expenses, if any, submitted in accordance with the Company’s policies and in accordance with the provisions of Section 1 (Exhibit A) of this Agreement; and

(2) Section 2 (Confidentiality), Section 3 (Ownership), Section 4 (Conflicting Obligations), Section 5 (Return of Company Materials), Section 7 (Term and Termination), Section 8 (Independent Contractor; Benefits), Section 9 (Indemnification), Section 10 (Limitation of Liability), Section 11 (Arbitration and Equitable Relief), and Section 12 (Miscellaneous) will survive termination or expiration of this Agreement in accordance with their terms.

E. **Definitions:**

(1) “**Cause**” means any of the following: (i) the Consultant’s material breach of any term of the Separation Agreement, this Agreement or any other agreement between the Company and Consultant; (ii) the Consultant’s theft, dishonesty, willful misconduct, breach of fiduciary duty for personal profit, or falsification of any Company documents or records; workplace conduct; (iv) any intentional wrongful act by the Consultant which has a material detrimental effect on the Company’s reputation or business; and (v) the Consultant’s conviction (including any plea of guilty or nolo contendere) of any criminal act involving fraud, dishonesty, misappropriation or moral turpitude, or which impairs the Consultant’s ability to perform his duties under this Agreement.

(2) “**Change in Control**” shall have the meaning assigned to such term in the Company’s Amended and Restated 2012 Equity Incentive Plan (the “**Plan**”).

(3) **“Default Event”** shall mean the happening of one of the following events: (i) the Company shall (a) discontinue its business, (b) apply for or consent to the appointment of a receiver, trustee, custodian or liquidator of it or any of its property, (c) admit in writing its inability to pay its debts as they mature, (d) make a general assignment for the benefit of creditors, (e) file a voluntary petition in bankruptcy, or a petition or an answer seeking reorganization or arrangement with creditors, or to take advantage of any bankruptcy, reorganization, insolvency, readjustment of debt, dissolution or liquidation laws or statutes, or an answer admitting the material allegations of a petition filed against it in any proceeding under any such law, or (f) materially breach any term of the Separation Agreement, this Agreement or any other agreement between the Company and Consultant; or (ii) there shall be filed against the Company an involuntary petition seeking reorganization of the Company or the appointment of a receiver, trustee, custodian or liquidator of the Company or a substantial part of its assets, or an involuntary petition under any bankruptcy, reorganization or insolvency law of any jurisdiction.

8. Independent Contractor; Benefits; Company Policies

A. **Independent Contractor.** It is the express intention of the Company and Consultant that Consultant perform the Services as an independent contractor to the Company. Nothing in this Agreement shall in any way be construed to constitute Consultant as an agent, employee or representative of the Company. Without limiting the generality of the foregoing, Consultant is not authorized to bind the Company to any liability or obligation or to represent that Consultant has any such authority. Consultant agrees to furnish (or reimburse the Company for) all tools and materials necessary to accomplish this Agreement and shall incur all expenses associated with performance, except as expressly provided in **Exhibit A**. Consultant acknowledges and agrees that Consultant is obligated to report as income all compensation received by Consultant pursuant to this Agreement. Consultant agrees to and acknowledges the obligation to pay all self-employment and other taxes on such income.

B. **Benefits.** The Company and Consultant agree that Consultant will receive no Company-sponsored benefits from the Company where benefits include, but are not limited to, paid vacation, sick leave, medical insurance and 401k participation. If Consultant is reclassified by a state or federal agency or court as the Company’s employee, Consultant will become a reclassified employee and will receive no benefits from the Company, except those mandated by state or federal law, even if by the terms of the Company’s benefit plans or programs of the Company in effect at the time of such reclassification, Consultant would otherwise be eligible for such benefits.

C. **Company Policies.** Consultant acknowledges and agrees that during the Term consultant shall be subject to the terms and conditions of the Company’s Code of Conduct and any other policies applicable to Consultants, including the Company’s Disclosure Policy.

9. Indemnification

Consultant agrees to indemnify and hold harmless the Company and its affiliates and their directors, officers and employees from and against all taxes, losses, damages, liabilities, costs and expenses, including attorneys’ fees and other legal expenses, arising directly or indirectly from or in connection with (i) any negligent, reckless or intentionally wrongful act of Consultant or Consultant’s assistants, employees, contractors or agents, (ii) any breach by the Consultant or Consultant’s assistants, employees, contractors or agents of any of the covenants contained in this Agreement and corresponding Confidential Information and Invention Assignment Agreement, (iii) any failure of Consultant to perform the Services in accordance with all applicable laws, rules and regulations, or (iv) any violation or claimed violation of a third party’s rights resulting in whole or in part from the Company’s use of the Inventions or other deliverables of Consultant under this Agreement.

10. Limitation of Liability

IN NO EVENT SHALL COMPANY OR CONSULTANT BE LIABLE TO THE OTHER PARTY OR TO ANY OTHER PARTY FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOST PROFITS OR LOSS OF BUSINESS, HOWEVER CAUSED AND UNDER ANY THEORY OF LIABILITY, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHER THEORY OF LIABILITY, REGARDLESS OF WHETHER COMPANY WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND NOTWITHSTANDING THE FAILURE OF ESSENTIAL PURPOSE

OF ANY LIMITED REMEDY. IN NO EVENT SHALL EITHER PARTY'S LIABILITY ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT EXCEED THE AMOUNTS PAID BY COMPANY TO CONSULTANT UNDER THIS AGREEMENT FOR THE SERVICES, DELIVERABLES OR INVENTION GIVING RISE TO SUCH LIABILITY.

11. Arbitration and Equitable Relief

A. **Arbitration.** THE PARTIES AGREE THAT ANY AND ALL DISPUTES ARISING OUT OF THE TERMS OF THIS AGREEMENT, THEIR INTERPRETATION, AND ANY OF THE MATTERS HEREIN RELEASED, SHALL BE SUBJECT TO ARBITRATION IN SAN DIEGO COUNTY, BEFORE JUDICIAL ARBITRATION & MEDIATION SERVICES (" **JAMS**"), PURSUANT TO ITS EMPLOYMENT ARBITRATION RULES & PROCEDURES ("**JAMS RULES**"). THE ARBITRATOR MAY GRANT INJUNCTIONS AND OTHER RELIEF IN SUCH DISPUTES. THE ARBITRATOR SHALL ADMINISTER AND CONDUCT ANY ARBITRATION IN ACCORDANCE WITH CALIFORNIA LAW, INCLUDING THE CALIFORNIA CODE OF CIVIL PROCEDURE, AND THE ARBITRATOR SHALL APPLY SUBSTANTIVE AND PROCEDURAL CALIFORNIA LAW TO ANY DISPUTE OR CLAIM, WITHOUT REFERENCE TO ANY CONFLICT-OF-LAW PROVISIONS OF ANY JURISDICTION. TO THE EXTENT THAT THE JAMS RULES CONFLICT WITH CALIFORNIA LAW, CALIFORNIA LAW SHALL TAKE PRECEDENCE. THE DECISION OF THE ARBITRATOR SHALL BE FINAL, CONCLUSIVE, AND BINDING ON THE PARTIES TO THE ARBITRATION. THE PARTIES AGREE THAT THE PREVAILING PARTY IN ANY ARBITRATION SHALL BE ENTITLED TO INJUNCTIVE RELIEF IN ANY COURT OF COMPETENT JURISDICTION TO ENFORCE THE ARBITRATION AWARD. THE PARTIES TO THE ARBITRATION SHALL EACH PAY AN EQUAL SHARE OF THE COSTS AND EXPENSES OF SUCH ARBITRATION, AND EACH PARTY SHALL SEPARATELY PAY FOR ITS RESPECTIVE COUNSEL FEES AND EXPENSES; PROVIDED, HOWEVER, THAT THE ARBITRATOR SHALL AWARD ATTORNEYS' FEES AND COSTS TO THE PREVAILING PARTY, EXCEPT AS PROHIBITED BY LAW. THE PARTIES HEREBY AGREE TO WAIVE THEIR RIGHT TO HAVE ANY DISPUTE BETWEEN THEM RESOLVED IN A COURT OF LAW BY A JUDGE OR JURY. NOTWITHSTANDING THE FOREGOING, THIS SECTION WILL NOT PREVENT EITHER PARTY FROM SEEKING INJUNCTIVE RELIEF (OR ANY OTHER PROVISIONAL REMEDY) FROM ANY COURT HAVING JURISDICTION OVER THE PARTIES AND THE SUBJECT MATTER OF THEIR DISPUTE RELATING TO THIS AGREEMENT AND THE AGREEMENTS INCORPORATED HEREIN BY REFERENCE. SHOULD ANY PART OF THE ARBITRATION AGREEMENT CONTAINED IN THIS PARAGRAPH CONFLICT WITH ANY OTHER ARBITRATION AGREEMENT BETWEEN THE PARTIES, THE PARTIES AGREE THAT THIS ARBITRATION AGREEMENT SHALL GOVERN.

B. **Voluntary Nature of Agreement.** CONSULTANT ACKNOWLEDGES AND AGREES THAT HE/SHE IS EXECUTING THIS AGREEMENT VOLUNTARILY AND WITHOUT ANY DURESS OR UNDUE INFLUENCE BY THE COMPANY OR ANYONE ELSE. CONSULTANT FURTHER ACKNOWLEDGES AND AGREES THAT HE/SHE HAS CAREFULLY READ THIS AGREEMENT AND THAT CONSULTANT HAS ASKED ANY QUESTIONS NEEDED FOR CONSULTANT TO UNDERSTAND THE TERMS, CONSEQUENCES AND BINDING EFFECT OF THIS AGREEMENT AND FULLY UNDERSTAND IT, INCLUDING THAT **CONSULTANT IS WAIVING HIS/HER RIGHT TO A JURY TRIAL** . FINALLY, CONSULTANT AGREES THAT HE/SHE HAS BEEN PROVIDED AN OPPORTUNITY TO SEEK THE ADVICE OF AN ATTORNEY OF CONSULTANT'S CHOICE BEFORE SIGNING THIS AGREEMENT.

12. Miscellaneous

A. **Governing Law; Consent to Personal Jurisdiction.** This Agreement shall be governed by the laws of the State of California, without regard to the conflicts of law provisions of any jurisdiction. To the extent that any lawsuit is permitted under this Agreement, the Parties hereby expressly consent to the personal and exclusive jurisdiction and venue of the state and federal courts located in California.

B. **Assignability.** This Agreement will be binding upon Consultant's heirs, executors, assigns, administrators, and other legal representatives, and will be for the benefit of the Company, its successors, and its assigns. There are no intended third-party beneficiaries to this Agreement, except as expressly stated. Consultant may not sell, assign or delegate any rights or obligations under this Agreement. Notwithstanding

anything to the contrary herein, Company may assign this Agreement and its rights and obligations under this Agreement to any successor to all or substantially all of Company's relevant assets, whether by merger, consolidation, reorganization, reincorporation, sale of assets or stock, change of control or otherwise.

C. **Entire Agreement.** This Agreement, together with the Separation Agreement, constitute the entire agreement and understanding between the Parties with respect to the subject matter herein and supersedes all prior written and oral agreements, discussions, or representations between the Parties. Consultant represents and warrants that he/she is not relying on any statement or representation not contained in this Agreement. To the extent any terms set forth in any exhibit or schedule conflict with the terms set forth in this Agreement, the terms of this Agreement shall control unless otherwise expressly agreed by the Parties in such exhibit or schedule.

D. **Headings.** Headings are used in this Agreement for reference only and shall not be considered when interpreting this Agreement.

E. **Severability.** If a court or other body of competent jurisdiction finds, or the Parties mutually believe, any provision of this Agreement, or portion thereof, to be invalid or unenforceable, such provision will be enforced to the maximum extent permissible so as to effect the intent of the Parties, and the remainder of this Agreement will continue in full force and effect.

F. **Modification, Waiver.** No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in a writing signed by the Parties. Waiver by the Company of a breach of any provision of this Agreement will not operate as a waiver of any other or subsequent breach.

G. **Notices.** Any notice or other communication required or permitted by this Agreement to be given to a Party shall be in writing and shall be deemed given (i) if delivered personally or by commercial messenger or courier service, (ii) when sent by confirmed facsimile or email, or (iii) if mailed by U.S. registered or certified mail (return receipt requested), to the Party at the Party's address written below or at such other address as the Party may have previously specified by like notice. If by mail, delivery shall be deemed effective three business days after mailing in accordance with this Section 12.G.

- (1) If to the Company, to:
Organovo Holding, Inc.
6275 Nancy Ridge Road
Suite 110
San Diego, CA 92121
Attention: General Counsel

The one exception to the notice requirement will be the delivery of invoices, or requests for expense reimbursement, by the Consultant to the Company. Invoices and requests for expense reimbursement will be delivered by the Consultant via e-mail to: with a copy to.

- (2) If to Consultant, to the address for notice on the signature page to this Agreement or, if no such address is provided, to the last address of Consultant provided by Consultant to the Company.

H. **Attorneys' Fees.** In any court action at law or equity that is brought by one of the Parties to this Agreement to enforce or interpret the provisions of this Agreement, the prevailing Party will be entitled to reasonable attorneys' fees, in addition to any other relief to which that Party may be entitled.

I. **Signatures.** This Agreement may be signed in two counterparts, each of which shall be deemed an original, with the same force and effectiveness as though executed in a single document.

IN WITNESS WHEREOF, the Parties hereto have executed this Consulting Agreement as of the date first written above.

CONSULTANT

By: /s/ Keith Murphy

Name: Keith Murphy

Title: Consultant

Address for Notice:

ORGANOVO HOLDINGS, INC.

By: /s/ Kirk Malloy

Name: Kirk Malloy

Title: Lead Director

EXHIBIT A

SERVICES AND COMPENSATION

1. **Services.** The Services will include, but will not be limited to, the following:

During the Term, Consultant will make himself available, at reasonable times and upon reasonable notice, during normal business hours and for up to forty hours per month (which shall not include any time Consultant spends attending Board meetings or related to Consultant's service as a director on the Company's Board of Directors) to provide transition services and such other services as mutually agreed to by Consultant and the Company's Board of Directors or Chief Executive Officer. Consultant also agrees not to perform any services on behalf of the Company or to act as the Company's representative unless approved in advance by the Company's Board of Directors or the Chief Executive Officer.

2. **Compensation.**

A. The Compensation payable to Consultant for the Services is set forth in the Continued Services, Consulting and Separation Agreement, dated as of the date hereof.

B. The Company will reimburse Consultant, in accordance with the Company's policy, for all reasonable expenses incurred by Consultant in performing the Services pursuant to this Agreement; provided that Consultant receives written consent from an authorized agent of the Company prior to incurring expenses greater than \$1,000 and submits receipts for such expenses to the Company in accordance with Company policy.

In order to help prevent adverse tax consequences to Consultant under Section 409A (as defined below), in no event will any payment under Section 3.A. of this Exhibit be made later than the later of (1) March 15th of the calendar year following the calendar year in which such payment was earned, or (2) the 15th day of the third (3rd) month following the end of the Company's fiscal year in which such payment was earned. All payments and benefits provided for under this Agreement are intended to be exempt from or otherwise comply with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, and the regulations and guidance thereunder (together, "**Section 409A**") so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities or ambiguous terms herein will be interpreted to be exempt or so comply. Each payment and benefit payable under this Agreement is intended to constitute a separate payment for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations.

EXHIBIT B
BRING-DOWN RELEASE

ORGANOVO HOLDINGS, INC.

BRING-DOWN RELEASE AGREEMENT

This Bring-Down Release Agreement (the “*Release*”) is made and entered into as of _____, ____ (the “*Agreement Date*”) by and between Organovo Holdings, Inc., a Delaware corporation, with its principal place of business at 6275 Nancy Ridge Road, San Diego, California, 92121 (the “*Company*”), and Keith Murphy, an individual with his principal place of business at (“*Murphy*”) (each herein referred to individually as a “*Party*,” or collectively as the “*Parties*”). All capitalized terms used in this Release not otherwise defined herein shall have the meanings set forth the Separation Agreement, except as otherwise specified.

A. The Parties previously entered into the Continued Service, Consulting and Separation Agreement (the “*Separation Agreement*”) and the Consulting Agreement (the “*Consulting Agreement*”), each dated April 7, 2017.

B. Murphy’s employment with the Company ended on the Separation Date (as defined in the Separation Agreement), and his consulting relationship with the Company ended on _____ (the “*Final Separation Date*”).

C. The Parties wish to resolve any and all disputes, claims, complaints, grievances, charges, actions, petitions, and demands that the Murphy may have against the Company and any of the Releasees as defined below, including, but not limited to, any and all claims arising out of or in any way related to Murphy’s employment with or separation from the Company, the Separation Agreement or the Consulting Agreement.

NOW, THEREFORE, in consideration of the mutual promises made herein, the Company and Murphy hereby agree as follows:

1. Release Payment.

The Company agrees to pay Murphy \$262,500 (less applicable tax and other withholdings, if any) in a lump sum on and contingent upon the Effective Date (as defined therein) of this Release.

2. Release of Claims.

A. Murphy agrees that the consideration offered by the Company to Murphy pursuant to the terms of this Release, the Separation Agreement and the Consulting Agreement represents settlement in full of all outstanding obligations owed to Murphy by the Company and its current and former officers, directors, employees, agents, investors, attorneys, stockholders, administrators, affiliates, benefit plans, plan administrators, insurers, trustees, divisions, and subsidiaries, and predecessor and successor corporations and assigns (collectively, the “*Releasees*”). Except as provided below, Murphy, on his own behalf and on behalf of his respective heirs, family members, executors, agents, and assigns, hereby and forever releases the Releasees from, and agrees not to sue concerning, or in any manner to institute, prosecute, or pursue, any claim, complaint, charge, duty, obligation, demand, or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that Murphy may possess against any of the Releasees arising from any omissions, acts, facts, or damages that have occurred up until and including the Effective Date, including, without limitation:

i. any and all claims relating to or arising from Murphy’s employment and consulting relationships with the Company and the respective terminations of those relationships, including any and all claims relating to the Separation Agreement and the Consulting Agreement;

ii. any and all claims relating to, or arising from, Murphy’s right to purchase, actual purchase or receipt of shares of stock of the Company, including, without limitation, any claims for fraud, misrepresentation, breach of fiduciary duty, breach of duty under applicable state corporate law, and securities fraud under any state or federal law;

iii. any and all claims for wrongful discharge of employment; termination in violation of public policy; discrimination; harassment; retaliation; breach of contract, both express and implied; breach of covenant of good faith and fair dealing, both express and implied; promissory estoppel; negligent or intentional infliction of emotional distress; fraud; negligent or intentional misrepresentation; negligent or intentional interference with contract or prospective economic advantage; unfair business practices; defamation; libel; slander; negligence; personal injury; assault; battery; invasion of privacy; false imprisonment; conversion; and disability benefits;

iv. any and all claims for violation of any federal, state, or municipal statute, including, but not limited to, Title VII of the Civil Rights Act of 1964; the Civil Rights Act of 1991; the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Equal Pay Act; the Fair Labor Standards Act; the Fair Credit Reporting Act; the Age Discrimination in Employment Act of 1967; the Older Workers Benefit Protection Act; the Employee Retirement Income Security Act of 1974; the Worker Adjustment and Retraining Notification Act; the Family and Medical Leave Act; the Sarbanes-Oxley Act of 2002; the Immigration Control and Reform Act; the California Family Rights Act; the California Labor Code; the California Workers' Compensation Act; and the California Fair Employment and Housing Act;

v. any and all claims for violation of the federal or any state constitution;

vi. any and all claims arising out of any other laws and regulations relating to employment or employment discrimination;

vii. any claim for any loss, cost, damage, or expense arising out of any dispute over the nonwithholding or other tax treatment of any of the proceeds received by Murphy as a result of this Release; and

viii. any and all claims for attorneys' fees and costs.

B. Murphy agrees that the release set forth in this Section 2 shall be and remain in effect in all respects as a complete general release as to the matters released. This release does not extend to the Company's obligations to Murphy in Section 1 contingent upon the Effective Date. The release set forth in this Section 2 does not release claims that cannot be released as a matter of law, including, but not limited to, Murphy's right to file a charge with or participate in a charge by the Equal Employment Opportunity Commission, or any other local, state, or federal administrative body or government agency that is authorized to enforce or administer laws related to employment, against the Company (with the understanding that any such filing or participation does not give Murphy the right to recover any monetary damages against the Company; Murphy's release of claims herein bars Murphy from recovering such monetary relief from the Company). Notwithstanding the foregoing, Murphy acknowledges that any and all disputed wage claims that are released herein shall be subject to binding arbitration as provided in Section 8 below, except as required by applicable law. Murphy represents that he has made no assignment or transfer of any right, claim, complaint, charge, duty, obligation, demand, cause of action, or other matter waived or released by this Section 2.

Notwithstanding the foregoing, nothing in this Agreement shall, or is intended to, release or impair any of the following:

(a) Murphy's rights to receive the consideration and benefits provided under this Agreement or the Separation Agreement;

(b) Murphy's rights and the obligations of the Company under the Equity Awards;

(c) Murphy's vested rights under any 401k, retirement, or profit sharing plan of the Company; or

(d) Murphy's rights to be defended and indemnified pursuant to California Labor Code Section 2802 or other law, the Certificate of Incorporation or Bylaws of the Company, and the Indemnification Agreement (including the right to receive advancements of expenses in accordance with any of the foregoing), or any policy of directors' and officers' liability insurance;

C. Murphy acknowledges that he is waiving and releasing any rights he may have under the Age Discrimination in Employment Act of 1967 (“*ADEA*”), and that this waiver and release is knowing and voluntary. Murphy agrees that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the Effective Date. Murphy acknowledges that the consideration provided by the Company under this Release for this waiver and release is in addition to anything of value to which Murphy was already entitled. Murphy further acknowledges that he has been advised by this writing that: (i) he should consult with an attorney prior to executing this Release; (ii) he has twenty-one (21) days within which to consider this Release; (iii) he has seven (7) days following his execution of this Release to revoke this Release; (iv) this Release shall not be effective until after the revocation period has expired; and (v) nothing in this Release prevents or precludes Murphy from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties, or costs for doing so, unless specifically authorized by federal law. In the event Murphy signs this and returns it to the Company in less than the 21-day period identified above, Murphy hereby acknowledges that he/she has freely and voluntarily chosen to waive the time period allotted for considering this Release.

D. Murphy understands that this Release shall be null and void if not executed by him within twenty one (21) days. Murphy seven (7) days after Murphy signs this Release to revoke this Release. This Release will become effective on the eighth (8th) day after Murphy signs this Release, so long as it has been signed by Murphy and has not been revoked by Murphy before that date (the “*Effective Date*”).

3. California Civil Code Section 1542.

Murphy acknowledges that he has been advised to consult with legal counsel and is familiar with the provisions of California Civil Code Section 1542, a statute that otherwise prohibits the release of unknown claims, which provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

Murphy, being aware of said code section, agrees to expressly waive any rights he may have thereunder, as well as under any other statute or common law principles of similar effect.

4. No Pending Lawsuits; No Cooperation; No Admission.

A. Murphy represents that he has no lawsuits, claims, or actions pending in his name, or on behalf of any other person or entity, against the Company or any of the other Releasees.

B. Murphy agrees that he/she will not knowingly encourage, counsel, or assist any attorneys or their clients in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints by any third party against the Company or any of the Releasees, unless under a subpoena or other court order to do so or as related directly to the ADEA waiver in this Release. Murphy agrees both to immediately notify the Company upon receipt of any such subpoena or court order, and to furnish, within three (3) business days of its receipt, a copy of such subpoena or other court order. If approached by anyone for counsel or assistance in the presentation or prosecution of any disputes, differences, grievances, claims, charges, or complaints against the Company or any of the Releasees, Murphy shall state no more than that he cannot provide counsel or assistance.

C. Murphy understands and acknowledges that the release in Section 2 above constitutes a compromise and settlement of any and all actual or potential disputed claims by Murphy. No action taken by the Company hereto, either previously or in connection with this Release, the Separation Agreement or the Consulting Agreement, shall be deemed or construed to be (i) an admission of the truth or falsity of any actual or potential claims or (ii) an acknowledgment or admission by the Company of any fault or liability whatsoever to Murphy or to any third party.

5. Restrictive Covenants.

By executing this Release, Murphy agrees to abide by each of the restrictive covenants set forth in Sections 8, 9 and 10 of the Separation Agreement as consideration for the payment provided by Section 1 of this Release, and acknowledges that the provisions and covenants contained in Sections 8, 9 and 10 of the Separation Agreement are reasonable in geographic and temporal scope and do not impose a greater restriction or restraint than is necessary to protect the goodwill and other legitimate business interests of the Company, and do not adversely affect Murphy's ability to earn a living in any capacity that does not violate the covenants contained in Sections 8, 9 and 10 of the Separation Agreement.

6. Legal Representation.

Murphy represents that he has had an opportunity to consult with an attorney, and has carefully read and understands the scope and effect of the provisions of this Release, the Separation Agreement and the Consulting Agreement. Murphy has not relied upon any representations or statements made by the Company that are not specifically set forth in this Release, the Separation Agreement or the Consulting Agreement. Murphy further acknowledges and agrees that Gunderson Dettmer ("**GD**") is legal counsel for Company solely, and that he is not relying on the Company or GD for legal advice regarding this Release, the Separation Agreement or the Consulting Agreement. The parties further acknowledge that they have entered into this Release voluntarily, without coercion, and based upon their own judgment and not in reliance upon any representations or promises made by the other party or parties, other than those contained within this Release, the Separation Agreement or the Consulting Agreement.

7. Arbitration and Equitable Relief

A. **Arbitration.** THE PARTIES AGREE THAT ANY AND ALL DISPUTES ARISING OUT OF THE TERMS OF THIS RELEASE, THEIR INTERPRETATION, AND ANY OF THE MATTERS HEREIN RELEASED, SHALL BE SUBJECT TO ARBITRATION IN SAN DIEGO COUNTY, BEFORE JUDICIAL ARBITRATION & MEDIATION SERVICES ("**JAMS**"), PURSUANT TO ITS EMPLOYMENT ARBITRATION RULES & PROCEDURES ("**JAMS RULES**"). THE ARBITRATOR MAY GRANT INJUNCTIONS AND OTHER RELIEF IN SUCH DISPUTES. THE ARBITRATOR SHALL ADMINISTER AND CONDUCT ANY ARBITRATION IN ACCORDANCE WITH CALIFORNIA LAW, INCLUDING THE CALIFORNIA CODE OF CIVIL PROCEDURE, AND THE ARBITRATOR SHALL APPLY SUBSTANTIVE AND PROCEDURAL CALIFORNIA LAW TO ANY DISPUTE OR CLAIM, WITHOUT REFERENCE TO ANY CONFLICT-OF-LAW PROVISIONS OF ANY JURISDICTION. TO THE EXTENT THAT THE JAMS RULES CONFLICT WITH CALIFORNIA LAW, CALIFORNIA LAW SHALL TAKE PRECEDENCE. THE DECISION OF THE ARBITRATOR SHALL BE FINAL, CONCLUSIVE, AND BINDING ON THE PARTIES TO THE ARBITRATION. THE PARTIES AGREE THAT THE PREVAILING PARTY IN ANY ARBITRATION SHALL BE ENTITLED TO INJUNCTIVE RELIEF IN ANY COURT OF COMPETENT JURISDICTION TO ENFORCE THE ARBITRATION AWARD. THE PARTIES TO THE ARBITRATION SHALL EACH PAY AN EQUAL SHARE OF THE COSTS AND EXPENSES OF SUCH ARBITRATION, AND EACH PARTY SHALL SEPARATELY PAY FOR ITS RESPECTIVE COUNSEL FEES AND EXPENSES; PROVIDED, HOWEVER, THAT THE ARBITRATOR SHALL AWARD ATTORNEYS' FEES AND COSTS TO THE PREVAILING PARTY, EXCEPT AS PROHIBITED BY LAW. THE PARTIES HEREBY AGREE TO WAIVE THEIR RIGHT TO HAVE ANY DISPUTE BETWEEN THEM RESOLVED IN A COURT OF LAW BY A JUDGE OR JURY. NOTWITHSTANDING THE FOREGOING, THIS SECTION WILL NOT PREVENT EITHER PARTY FROM SEEKING INJUNCTIVE RELIEF (OR ANY OTHER PROVISIONAL REMEDY) FROM ANY COURT HAVING JURISDICTION OVER THE PARTIES AND THE SUBJECT MATTER OF THEIR DISPUTE RELATING TO THIS RELEASE AND THE AGREEMENTS INCORPORATED HEREIN BY REFERENCE. SHOULD ANY PART OF THE ARBITRATION AGREEMENT CONTAINED IN THIS PARAGRAPH CONFLICT WITH ANY OTHER ARBITRATION AGREEMENT BETWEEN THE PARTIES, THE PARTIES AGREE THAT THIS ARBITRATION AGREEMENT SHALL GOVERN.

B. **Voluntary Nature of Agreement.** MURPHY ACKNOWLEDGES AND AGREES THAT HE IS EXECUTING THIS RELEASE VOLUNTARILY AND WITHOUT ANY DURESS OR UNDUE INFLUENCE BY THE COMPANY OR ANYONE ELSE. MURPHY FURTHER ACKNOWLEDGES AND

AGREES THAT HE HAS CAREFULLY READ THIS RELEASE, THE SEPARATION AGREEMENT AND THE CONSULTING AGREEMENT AND THAT MURPHY HAS ASKED ANY QUESTIONS NEEDED FOR MURPHY TO UNDERSTAND THE TERMS, CONSEQUENCES AND BINDING EFFECT OF THIS RELEASE, THE SEPARATION AGREEMENT AND THE CONSULTING AGREEMENT AND FULLY UNDERSTANDS ALL OF THESE AGREEMENTS, INCLUDING THAT **MURPHY IS WAIVING HIS RIGHT TO A JURY TRIAL**. FINALLY, MURPHY AGREES THAT HE HAS BEEN PROVIDED AN OPPORTUNITY TO SEEK THE ADVICE OF AN ATTORNEY OF MURPHY'S CHOICE BEFORE SIGNING THIS RELEASE.

8. Miscellaneous

A. **Authority.** The Company represents and warrants that the undersigned has the authority to act on behalf of the Company and to bind the Company and all who may claim through it to the terms and conditions of this Release. Murphy represents and warrants that he has the capacity to act on his/her own behalf and on behalf of all who might claim through him to bind them to the terms and conditions of this Release. Each Party warrants and represents that there are no liens or claims of lien or assignments in law or equity or otherwise of or against any of the claims or causes of action released herein.

B. **Severability.** In the event that any provision or any portion of any provision of this Release, the Separation Agreement or the Consulting Agreement or any surviving agreement made a part hereof or thereof becomes or is declared by a court of competent jurisdiction or arbitrator to be illegal, unenforceable, or void, this Release, the Separation Agreement and the Consulting Agreement shall continue in full force and effect without said provision or portion of provision.

C. **Attorneys' Fees.** Except with regard to a legal action challenging or seeking a determination in good faith of the validity of the waiver herein under the ADEA, in the event that either Party brings an action to enforce or effect its rights under this Release, the Separation Agreement or the Consulting Agreement, the prevailing Party shall be entitled to recover its costs and expenses, including the costs of mediation, arbitration, litigation, court fees, and reasonable attorneys' fees incurred in connection with such an action.

D. **Costs.** The Parties shall each bear their own costs, attorneys' fees, and other fees incurred in connection with the preparation of this Release.

E. **Entire Agreement.** This Release, together with the Separation Agreement, the Consulting Agreement, the Indemnification Agreement, IAA, the Stock Plan and the Equity Awards, represents the entire agreement and understanding between the Company and Murphy concerning the subject matter of this Release and Murphy's employment with and separation from the Company and the events leading thereto and associated therewith, and supersedes and replaces any and all prior agreements and understandings concerning the subject matter of this Release and Murphy's relationship with the Company.

F. **No Oral Modification.** This Release may only be amended in a writing signed by Murphy and the Chair of the Compensation Committee.

G. **Governing Law.** This Release shall be governed by the laws of the State of California, without regard for choice-of-law provisions. Murphy consents to personal and exclusive jurisdiction and venue in the State of California.

H. **Counterparts.** This Release may be executed in counterparts and by facsimile, and each counterpart and facsimile shall have the same force and effect as an original and shall constitute an effective, binding agreement on the part of each of the undersigned.

I. **Assignability.** This Release is binding upon Murphy's heirs, executors, assigns, administrators, and other legal representatives, and will be for the benefit of the Company, its subsidiaries, its successors, and its assigns. Murphy may not sell, assign or delegate any rights or obligations under this Release. Notwithstanding anything to the contrary herein, the Company may assign this Release and its rights and obligations

under this Release to any successor to all or substantially all of Company's relevant assets, whether by merger, consolidation, reorganization, reincorporation, sale of assets or stock, change of control or otherwise.

J. **Notices.** Any notice or other communication required or permitted by this Release to be given to a Party shall be in writing and shall be deemed given (i) if delivered personally or by commercial messenger or courier service, (ii) when sent by confirmed facsimile or email, or (iii) if mailed by U.S. registered or certified mail (return receipt requested), to the Party at the Party's address written below or at such other address as the Party may have previously specified by like notice. If by mail, delivery shall be deemed effective three business days after mailing in accordance with this Section 9.J.

If to the Company, to:
Organovo Holdings, Inc.
6275 Nancy Ridge Road
Suite 110
San Diego, CA 92121
Attention: General Counsel

The one exception to the notice requirement will be the delivery of invoices, or requests for expense reimbursement, by the Murphy to the Company. Invoices and requests for expense reimbursement will be delivered by Murphy via e-mail to: with a copy to.

If to Murphy, to the address for notice on the first page to this Release as well as in electronic form to or, to such updated address as Murphy provides to the Company in writing.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the Parties hereto have executed this Release as of the date first written above.

MURPHY

ORGANOVO HOLDINGS, INC.

By: _____

By: _____

Name: Keith Murphy

Name: _____

Title: _____

EXHIBIT C

INVENTION ASSIGNMENT AGREEMENT

ORGANOVO HOLDINGS, INC.

INVENTION ASSIGNMENT AGREEMENT

This Invention Assignment Agreement (the “*Agreement*”), is made and entered into as of April 7, 2017 (the “*Effective Date*”), by and between Organovo Holdings, Inc., a Delaware corporation, with its principal place of business at 6275 Nancy Ridge Road, San Diego, California, 92121 (collectively with and including all of the subsidiaries of Organovo Holdings, Inc., including but not limited to, Organovo, Inc., the “*Company*”) and Keith Murphy, an individual with his principal place of business at (“*Murphy*”).

Murphy hereby agrees to the following provisions of this Agreement:

The Company and I acknowledge that I have been engaged to provide services by the Company for a period of time prior to the date of this Agreement (the “*Prior Engagement Period*”). Accordingly, I agree that if and to the extent that, during the Prior Engagement Period, I conceived, created, authored, invented, developed or reduced to practice any item, including any intellectual property rights with respect thereto, that would have been an “*Invention*” (as defined below) if conceived, created, authored, invented, developed or reduced to practice during the period of my employment with Company under this Agreement, then and any such item shall be deemed an “*Invention*” hereunder, and this Agreement shall apply to such item as if conceived, created, authored, invented, developed or reduced to practice under this Agreement

1. **Ownership**

A. ***Assignment of Inventions.*** As between the Company and myself, I agree that all right, title, and interest in and to any and all copyrightable material, notes, records, drawings, designs, logos, inventions, improvements, developments, discoveries, ideas and trade secrets conceived, discovered, authored, invented, developed or reduced to practice by me, solely or in collaboration with others, during the period of time I am (or have been) in the employ of the Company (including during my off-duty hours), or with the use of Company’s equipment, supplies, facilities, or Company Confidential Information, and any copyrights, patents, trade secrets, mask work rights or other intellectual property rights relating to the foregoing, except as provided in below (collectively, “*Inventions*”), are the sole property of Organovo. I also agree to promptly make full written disclosure to Organovo of any Inventions, and to deliver and assign and hereby irrevocably assign fully to Organovo all of my right, title and interest in and to Inventions. I agree that this assignment includes a present conveyance to Organovo of ownership of Inventions that are not yet in existence. I further acknowledge that all original works of authorship that are made by me (solely or jointly with others) within the scope of and during the period of my employment with the Company and that are protectable by copyright are “works made for hire,” as that term is defined in the United States Copyright Act. I understand and agree that the decision whether or not to commercialize or market any Inventions is within the Company’s sole discretion and for the Company’s sole benefit, and that no royalty or other consideration will be due to me as a result of the Company’s efforts to commercialize or market any such Inventions. To the extent allowed by law, the foregoing assignment includes all rights of paternity, integrity, disclosure and withdrawal and any other rights that may be known as or referred to as “moral rights,” “artist’s rights,” “droit moral,” or the like (collectively “*Moral Rights*”). To the extent I retain any such Moral Rights under applicable law, I hereby ratify and consent to any action that may be taken with respect to such Moral Rights by or authorized by Company and agree not to assert any Moral Rights with respect thereto. I will confirm any such ratifications, consents and agreements from time to time as requested by Company.

B. ***Confidentiality.*** I agree that all Inventions and all other business, technical and financial information (including, without limitation, the identity of and information relating to customers or employees) I develop, learn or obtain during the term I am (or have been) in the employ of the Company (including during my off-duty hours) that relate to Company or the business or demonstrably anticipated business of Company or that are received by or for Company in confidence, constitute “*Proprietary Information*.” I will hold in confidence and not disclose or, except within the scope of my employment, use any Proprietary Information. However, I shall not be obligated under this paragraph with respect to information I can document is or becomes readily publicly available without restriction through no fault of mine. Upon termination of my employment, I will promptly return to Company all items containing or embodying Proprietary Information (including all copies), except that I may keep my personal copies of (i) my compensation records, (ii) materials distributed to shareholders generally and (iii) this

Agreement. I also recognize and agree that I have no expectation of privacy with respect to Company's telecommunications, networking or information processing systems (including, without limitation, stored computer files, email messages and voice messages) and that my activity and any files or messages on or using any of those systems may be monitored at any time without notice.

C. **Further Assurances.** I agree to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments, and all other instruments that the Company shall deem proper or necessary in order to apply for, register, obtain, maintain, defend, and enforce such rights, and in order to deliver, assign and convey to the Company, its successors, assigns, and nominees the sole and exclusive rights, title, and interest in and to all Inventions, and testifying in a suit or other proceeding relating to such Inventions. I further agree that my obligations under this section and shall continue after the termination of this Agreement.

D. **Attorney-in-Fact.** I agree that, if the Company is unable because of my unavailability, mental or physical incapacity, or for any other reason to secure my signature with respect to any Inventions, including, without limitation, for the purpose of applying for or pursuing any application for any United States or foreign patents or mask work or copyright registrations covering the Inventions assigned to Organovo, then I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney-in-fact, to act for and on my behalf to execute and file any papers and oaths, and to do all other lawfully permitted acts with respect to such Inventions to further the prosecution and issuance of patents, copyright and mask work registrations with the same legal force and effect as if executed by me. This power of attorney shall be deemed coupled with an interest, and shall be irrevocable.

E. **Exception to Assignments.** I UNDERSTAND THAT THE PROVISIONS OF THIS AGREEMENT REQUIRING ASSIGNMENT OF INVENTIONS (AS DEFINED UNDER SECTION 1.A ABOVE) TO ORGANOVO DO NOT APPLY TO ANY INVENTION THAT QUALIFIES FULLY UNDER THE PROVISIONS OF CALIFORNIA LABOR CODE SECTION 2870 (ATTACHED HERETO AS EXHIBIT B). I WILL ADVISE ORGANOVO PROMPTLY IN WRITING OF ANY INVENTIONS THAT I BELIEVE MEET THE CRITERIA IN CALIFORNIA LABOR CODE SECTION 2870 AND ARE NOT OTHERWISE DISCLOSED ON EXHIBIT A TO PERMIT A DETERMINATION OF OWNERSHIP BY THE COMPANY. ANY SUCH DISCLOSURE WILL BE RECEIVED IN CONFIDENCE.

2. Miscellaneous

A. **Governing Law; Consent to Personal Jurisdiction.** This Agreement will be governed by the laws of the State of California without regard to California's conflicts of law rules that may result in the application of the laws of any jurisdiction other than California. To the extent that any lawsuit is permitted under this Agreement, I hereby expressly consent to the personal and exclusive jurisdiction and venue of the state and federal courts located in California for any lawsuit filed against me by the Company.

B. **Assignability.** This Agreement will be binding upon my heirs, executors, assigns, administrators, and other legal representatives, and will be for the benefit of the Company, its successors, and its assigns. There are no intended third-party beneficiaries to this Agreement, except as may be expressly otherwise stated. Notwithstanding anything to the contrary herein, Organovo may assign this Agreement and its rights and obligations under this Agreement to any successor to all or substantially all of Organovo's relevant assets, whether by merger, consolidation, reorganization, reincorporation, sale of assets or stock, or otherwise.

C. **Modification, Waiver.** No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in a writing signed by the CEO of Organovo and me. Waiver by Organovo of a breach of any provision of this Agreement will not operate as a waiver of any other or subsequent breach.

NOTICE: This agreement does not affect any immunity under 18 USC Sections 1833(b) (1) or (2), which read as follows (note that for purposes of this statute only, individuals performing work as contractors or consultants are considered to be employees):

(1) An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that (A) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

(2) An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order.

Date: April 7, 2017

Signature

/s/ Keith Murphy
Keith Murphy

EXHIBIT A

**LIST OF PRIOR INVENTIONS
AND ORIGINAL WORKS OF AUTHORSHIP**

Title	Date	Identifying Number or Brief Description
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No inventions or improvements

Additional Sheets Attached

Date: April 7, 2017

/s/ Keith Murphy
Signature

Keith Murphy
Name of Employee (typed or printed)

EXHIBIT B

**CALIFORNIA LABOR CODE SECTION 2870
INVENTION ON OWN TIME-EXEMPTION FROM AGREEMENT**

“(a) Any provision in an employment agreement which provides that an employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the employee developed entirely on his or her own time without using the employer’s equipment, supplies, facilities, or trade secret information except for those inventions that either:

(1) Relate at the time of conception or reduction to practice of the invention to the employer’s business, or actual or demonstrably anticipated research or development of the employer; or

(2) Result from any work performed by the employee for the employer.

(b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable.”

EXHIBIT D

ORGANOVO HOLDINGS, INC.

DIRECTOR CONFIDENTIALITY AGREEMENT

This Director Confidentiality Agreement (this “*Agreement*”) is made and entered into as of April 7, 2017, by and between Organovo Holdings, Inc., a Delaware corporation (the “*Company*”), and Keith Murphy (the “*Director*”).

1. Confidential Information.

A. Definition of Confidential Information. “*Confidential Information*” as used in this Agreement shall mean any Confidential Company Information and any Board Information. “*Confidential Company Information*” is any and all technical and non-technical information including or relating to financial information and projections, business strategies and plans, potential mergers or acquisitions, or the sale of Company assets or subsidiaries, major partnering agreements, commercial contracts and relationships, employees, officers and directors, litigation (whether actual or threatened), intellectual property, trade secrets, and proprietary information, techniques, know-how, processes, apparatus, equipment, and the current, future and proposed business, products and services of the Company, its suppliers and customers, including, without limitation, its respective information concerning research, development, design details and specifications, engineering, financial information, procurement requirements, manufacturing, customer lists, business forecasts, sales and merchandising and marketing plans and information. Confidential Company information also includes information that, if disclosed, may be useful to the Company’s competitors or harmful to the Company, its customers, suppliers and partners. “*Board Information*” includes information acquired in connection with the Director’s role as a director to the Company, whether through board meetings, deliberations or discussions among or between directors, Company employees or agents, or relating to board dynamics generally, and includes proprietary or confidential information of any third party who may disclose such information to the Company or the Director in the course of the Company’s business.

B. Nondisclosure and Nonuse Obligations. The Director will use Confidential Information solely for the benefit of the Company. The Director agrees that the Director shall exercise reasonable care to protect the Confidential Information. The Director will not disclose the Confidential Information to any party outside the Company, including principals or employees of any business entity that employs the Director or that has sponsored the Director’s election to the board. The Director will immediately give notice to the Company of any unauthorized use or disclosure of the Confidential Information. The Director agrees to assist the Company in remedying any such unauthorized use or disclosure of the Confidential Information. Additional obligations on the use or disclosure of Confidential Information include:

(1) Designated Spokesperson. The Company has designated the Company’s Chief Executive Officer as the sole spokesperson for the Company (the “*Company Spokesperson*”). Unless authorized by the Chief Executive Officer or the Board of Directors, the Director is not authorized to speak or comment (verbally or in writing, including via the Internet) on behalf of the Company with respect to company business, corporate actions affecting the Company, Board Information or rumors relating to the Company. Therefore, if the Director receives any inquiry from a third party (whether a securities analyst, a member of the media or other person) regarding the Company, the Director must immediately refer the inquiry to the Company Spokesperson without further comment.

(2) Rumors and Speculation. The Director may not comment, affirmatively or negatively, on rumors, unless specifically authorized to do so by the Company Spokesperson. This obligation also applies to rumors on the Internet. Accordingly, the Director may not comment on market speculation concerning potential mergers, acquisitions or divestitures, or other future business activities or events.

(3) Participation in Internet Forums Regarding Company Information. The Director is prohibited from participating in discussions in newsgroups, social networks, chat rooms, bulletin boards or other

Internet forums regarding the Company, its business or its securities, and prohibited from posting messages about the Company or its securities in such forums, whether under actual or a fictitious name.

C. Exclusions from Nondisclosure and Nonuse Obligations. The Director's obligations under Section 1.2 with respect to any portion of Confidential Information shall not apply to any information that (a) was in the public domain at or subsequent to the time it was communicated to the Director by the disclosing party through no fault of the Director, (b) was rightfully in the Director's possession free of any obligation of confidence at or subsequent to the time it was communicated to the Director by the disclosing party, or (c) is being disclosed by the Director in response to a valid order by a court or other governmental body, or otherwise as required by law, or as necessary to establish the rights of either party under this Agreement.

2. Compliance with Company Policies. During and following the term of the Director's service on the Company's Board of Directors, the Director shall, and shall cause his affiliates to, comply with and be bound by the terms of the Company's Insider Trading Policy, as such policy may be amended from time to time. During the term of the Director's service on the Company's Board of Directors, the Director shall comply with and be bound by the terms of the Company's Code of Business Conduct, Corporate Governance Guidelines and other Company policies, each in effect as of the date hereof, as these policies also address the use and disclosure of Confidential Information.

3. Breaches. The Director's obligations under this Agreement are of a unique character that gives them particular value, and breach of any of such obligations will result in irreparable and continuing damage to the Company for which there will be no adequate remedy at law. Accordingly, in the event of such breach, the Company will be entitled to injunctive relief and/or a decree for specific performance, and such other and further relief as may be proper (including, in the case of gross negligence, recklessness or willful misconduct, monetary damages if appropriate, unless such breach is caused by actions reasonably believed by the Director, based on advice of competent counsel, to be consistent with the fiduciary duties owed by such Director to the Company and its stockholders). In addition, notwithstanding any other agreement between the Company and the Director, or the certificate of incorporation or bylaws of the Company, in no case shall the Company be obligated to indemnify the Director for, or shall the Director accept indemnification with respect to, any damages resulting from a breach of this Agreement as a result of gross negligence, recklessness or willful misconduct, unless such breach is caused by actions reasonably believed by the Director to be consistent with the fiduciary duties owed by such Director to the Company and its stockholders.

4. Miscellaneous.

A. Fiduciary Duties. The terms of this Agreement do not in any way diminish, limit or detract from those fiduciary duties the Director owes to the Company and its stockholders as a director of the Company or otherwise.

B. Notices. Any notice required or permitted by this Agreement shall be in writing and shall be delivered as follows with notice deemed given as indicated: (i) by personal delivery when delivered personally; (ii) by overnight courier upon written verification of receipt; (iii) by facsimile transmission upon acknowledgment of receipt of electronic transmission; or (iv) by certified or registered mail, return receipt requested, upon verification of receipt. Notice shall be sent to the addresses set forth above or such other address as either party may specify in writing.

C. Governing Law. This Agreement shall be governed in all respects by the laws of the United States of America and by the laws of the State of Delaware, as such laws are applied to agreements entered into and to be performed entirely within Delaware between Delaware residents.

D. Severability. Should any provisions of this Agreement be held by a court of law to be illegal, invalid or unenforceable, the legality, validity and enforceability of the remaining provisions of this Agreement shall not be affected or impaired thereby.

E. Waiver. The waiver by either party of a breach of any provision of this Agreement by the other party shall not operate or be construed as a waiver of any other or subsequent breach by such other party.

F. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument. Execution and delivery of this Agreement by exchange of facsimile copies bearing the facsimile signature of a party hereto shall constitute a valid and binding execution and delivery of this Agreement by such party. Such facsimile copies shall constitute enforceable original documents.

G. Entire Agreement: No Third-Party Beneficiaries. This Agreement is the entire agreement between the parties concerning its subject matter, supersedes all prior agreements and understandings, whether or not written, and is not intended to confer upon any person other than the parties hereto any rights or remedies hereunder.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ORGANOVO HOLDINGS, INC.

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

DIRECTOR

/s/ Keith Murphy
Name: Keith Murphy



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

Date: April 11, 2017

NAME: Taylor J. Crouch

Dear Taylor,

On behalf of Organovo Inc., (“Organovo”) it is our great pleasure to extend you an offer of employment as Chief Executive Officer and President of Organovo and Organovo Holdings, Inc. (the “Company”), contingent on approval by the Company’s Board of Directors (the “Board”). Upon or promptly following your first day of employment with Organovo, the Board will appoint you as a member of the Board, to serve as a Class II director until the 2019 Annual Meeting of Stockholders. In making this offer, we are expressing our enthusiastic support for the skills and commitment you will bring to our exciting team. We are pleased to offer you the following compensation and benefits:

Salary: Your annual base salary for this position will be \$500,000 per year, subject to deductions and income tax withholding as required by law or the policies of the company. Future increases will be considered by the Compensation Committee in its review of executive compensation.

Bonus: You are eligible to participate in the Company’s Short Term Incentive Plan, which is established annually by the Compensation Committee. Your target incentive bonus for fiscal 2018 will be 50% of your base salary; however, the actual bonus received will be based upon the Company’s performance and your achievement of individual performance goals established by the Compensation Committee. Your fiscal 2018 bonus payment will be subject to required deductions, and withholdings and will be calculated on a prorated basis based on your W-2 earnings. The Company’s Compensation Committee shall have the sole discretion to determine whether you have earned any bonus set forth in this paragraph, and if so, the amount of any such bonus.

Equity Package: In addition, subject to approval by the Board’s Compensation Committee after your start date, we are pleased to offer you a Stock Option Award (the “Stock Option”) and a Performance-Based Restricted Stock Unit Award (the “PBRSU”). The Stock Option will be exercisable for 2,088,212 shares of the Company’s common stock (the “Option Shares”) (equal to approximately 2% of the Company’s outstanding common stock as of the date of grant. The exercise price for the Option Shares will be set at the closing market price of the Company’s common stock on the Nasdaq Stock Market on the date the Compensation Committee approves the grant. One-fourth (1/4th) of the Option Shares will vest one year from your start date at the Company (the “Vesting Commencement Date”), and the remaining Option Shares will vest on a quarterly basis thereafter over a period totaling four years from the Vesting Commencement Date, subject to your continuous service through such date. The PBRSU will represent the right to receive up to 208,822 shares of the Company’s common stock (the “Performance Shares”) (equivalent to options representing 0.5% of the Company’s outstanding common stock as of the date of grant). The PBRSU vesting schedule will be based upon the Company’s achievement of financial performance metrics to be mutually agreed upon in good faith by you and the Compensation Committee following your start date. The vesting of the Performance Shares will be contingent on the Compensation Committee’s certifying that the Company has achieved the performance metric and your continuous service through the date the Company achieves the applicable performance metric.

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The Company intends to grant the Stock Option and the PBRUS as “inducement grants” within the meaning of Nasdaq Marketplace Rule 5635(c)(4) (the “Inducement Grant Rules”). While the Stock Option and PBRUS will be granted outside of the Company’s 2012 Equity Incentive Plan (the “Plan”), the other terms and conditions applicable to the Stock Option and PBRUS will be consistent with those applicable to options and restricted stock units granted to the Company’s executive officers under the Plan, as described in the applicable Stock Option Agreement and PBRUS Agreement. The Company will file a Registration Statement on Form S-8 to cover the issuance of the Stock Option and the PBRUS and the sale of the underlying shares of Company’s common stock.

Severance and Change in Control: You are eligible to participate in the Company’s Severance and Change in Control Plan (the “Plan”), which is attached hereto, as a Tier 1 Employee. The Plan has been approved by the Board and may be modified by the Board in the future.

Benefits: Organovo provides group medical, dental and vision insurance plans for employees and their dependents. These benefits become effective on the first of the month following date of hire. Organovo also has a 401(k)-retirement plan with a company specified match, an Employee Stock Purchase Plan (ESPP) and a Section 125 plan allowing employees to have a health care spending account and a dependent care spending account. These latter items allow you to make contributions with pre-tax dollars. Finally, Organovo also offers long term disability, accidental death & dismemberment and life insurance (at one times your annual base salary).

Personal Time Off: You will be eligible for 4 weeks of vacation (20) days, accrued per pay-period. We also offer 5 sick days, 8 paid holidays and 2 floating holidays.

Start Date: Should you find our offer attractive and contingent upon Board approval, we would like your start date to be April 24, 2017.

Legal Fees: The Company will also reimburse you for up to \$5,000 of reasonable legal fees incurred by you with respect to your negotiation of this offer letter, upon presentation of appropriate supporting documentation.

This employment offer is contingent upon you signing our Employee Confidentiality Agreement providing legally required evidence of your right to work in the United States as well as Organovo’s successful completion of your references and background check. In consideration of your employment, you also agree to conform to the policies and standards of the Company.

Your employment as Chief Executive Officer and President is a full-time position. While you render services to the Company, you agree not engage in any other employment, consulting or other business activity (whether full-time or part-time) without first obtaining the Board’s approval, pursuant to the Company’s Corporate Governance Guidelines. The Board agrees to handle any such requests promptly and in good faith.

Your employment will be “at-will” and either party may terminate the relationship at any time with or without cause and with or without notice.

By your signature below, you acknowledge that you will be an exempt employee and that this offer letter supersedes any prior offer letters, arrangements or discussions between you and the Company (and its wholly-owned subsidiary Organovo Inc.), and represents the entire agreement between you and Organovo, and that no verbal or written agreements, promises or representations that are not specifically stated in this offer, are or will be binding upon Organovo. Any additions or modifications of these terms must be in writing and signed by you and Chair of the Compensation Committee. On the first day of employment, you will be required to provide the Company with the legally required proof of your identity and authorization to work in the United States. In addition, by signing this offer letter, you confirm to the Company that you have no contractual commitments or other legal obligations that would prohibit you from performing your duties for the Company.

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We hope that you'll accept this offer and look forward to welcoming you aboard! Please feel free to call me if you have any questions.

Sincerely,

/s/ Kirk Malloy
Kirk Malloy
Lead Director of the Board

To accept this job, offer:

- Sign and date this job offer letter where indicated below.
- Return a signed and dated document back within 5 days of the date of this letter. A copy of the document should be retained for your records. The document should be scanned and returned electronically to.

Accept Job Offer

By signing and dating this offer letter, I, Taylor Crouch, accept this offer of employment from Organovo, Inc., to be effective and contingent upon approval by the Company's Board of Directors.

Signature: /s/ Taylor Crouch

Date: April 11, 2017

*Investor Contact:*

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ORGANOVO ANNOUNCES CEO TRANSITION

Taylor J. Crouch Named Chief Executive Officer, Effective April 24, 2017

Keith Murphy to Step Down as Chief Executive Officer, Remains on Board of Directors

SAN DIEGO – April 11, 2017 – Organovo Holdings, Inc. (NASDAQ:ONVO) (“Organovo”), a three-dimensional biology company focused on delivering scientific and medical breakthroughs using its 3D bioprinting technology, today announced that Keith Murphy will be stepping down as chief executive officer to pursue entrepreneurial opportunities, effective April 21, 2017. Organovo’s board of directors has appointed Taylor J. Crouch, previously CEO of eStudySite, a leading investigative clinical research company, to succeed Mr. Murphy as CEO. Mr. Murphy will remain chairman of the board, and will serve as an advisor to the Company to ensure a seamless transition and offer his counsel and expertise.

Lead director, Kirk Malloy, Ph.D. stated, “On behalf of the board, I want to thank Keith for his many contributions to Organovo and the groundbreaking innovations he helped pioneer. Keith saw the value in 3D bioprinting technology before the market existed, and had the vision to take it from its earliest stages in academic labs, and develop it into a global business with a robust commercial platform and strong IP portfolio. We support Keith’s decision to step down and agree this is the opportune time to bring Taylor on to lead Organovo in its next phase of commercial growth. We also appreciate his willingness to continue to serve the Company.”

Mr. Murphy said, “I am extremely proud of the progress we have made in the last ten years achieving our vision for Organovo. Our 3D bioprinted human tissues are a disruptive and game-changing technology. Founding Organovo and guiding us to our leadership position in 3D bioprinting has been a privilege, and I am extremely grateful to my Organovo colleagues who assisted in building this success, as well as all of our partners and customers. I am a true believer in our existing tissue research services, the potential of our therapeutic liver tissue, and the future opportunities enabled by our platform technology. The time is right to bring in a CEO with the relevant commercial experience to lead the company into its next stage. I have great confidence in Organovo’s continued growth and success, and I look forward to working with the board and Taylor over the coming months to ensure that this transition is seamless for all of our stakeholders.”

Mr. Crouch said, “I am excited and honored to succeed Keith as Organovo’s CEO. Keith is an exceptional leader who built Organovo into the strong global company it is today. I look forward to working with the seasoned management team and all my talented new colleagues to further advance 3D human tissue bioprinting technology, advance solutions that benefit patients and drive the commercialization and scale of our business.”

Commenting on Mr. Crouch’s appointment, Dr. Malloy said, “Taylor is uniquely positioned to lead our growing company into its next phase given his significant commercial and operations experience. We are confident that Taylor’s extensive skills and expertise in the biotechnology and life sciences industries align with Organovo’s strategy to capitalize fully on its growth opportunities. The board looks forward to working with Taylor and the management team to execute against our strategy and continuing to create meaningful value for stockholders.”

About Taylor J. Crouch

Mr. Crouch has over 25 years of experience building and leading technology, expertise and product-based companies in the life sciences and biotech industries. For more than seven years, he has managed and served as an operational investor in a group of leading clinical research site companies. Specifically, Mr. Crouch served as Chief Executive Officer at eStudySite, a position he held from January 2009 to June 2016; as Executive Chairman of Meridien Research from December 2013 to September 2016; and as a Director of the National Research Institute from September 2011 through July 2016. He was instrumental in building these three sister companies, and helping them to achieve significant and profitable growth and to become recognized leaders in their respective fields of infectious disease, CNS disorders and metabolic disease. Prior to this, Mr. Crouch served as Senior Vice President of Operations/President International at Ligand Pharmaceuticals from 2005 to 2007, with responsibilities for new business development, technical operations, international sales and clinical research. Prior to Ligand, he was President and Chief Operating Officer of Discovery Partners International (NASDAQ: formerly DPII – a large drug discovery services and technology provider). Earlier in his career, he was Chief Executive Officer of Variagenics (NASDAQ: formerly VGNX – a leading pharmacogenomics company), Senior Vice President of Marketing and Sales at Parexel (a global CRO), and he also held international management positions in new product development and commercialization at Pfizer and Schering Plough. Mr. Crouch holds a BSE in chemical engineering, *cum laude*, from Princeton University and an MBA in international marketing and finance from the University of Chicago.

About Organovo Holdings, Inc.

Organovo designs and creates functional, three-dimensional human tissues for use in medical research and therapeutic applications. The Company develops 3D human tissue models through internal development and in collaboration with pharmaceutical, academic and other partners. Organovo's 3D human tissues have the potential to accelerate the drug discovery process, enabling treatments to be developed faster and at lower cost. The Company's ExVive Human Liver and Kidney Tissues are used in toxicology and other preclinical drug testing. The Company also actively conducts early research on specific tissues for therapeutic use in direct surgical applications. In addition to numerous scientific publications, the Company's technology has been featured in The Wall Street Journal, Time Magazine, The Economist, Forbes, and numerous other media outlets. Organovo is changing the shape of life science research and transforming medical care. Learn more at www.organovo.com.

Forward-Looking Statements

Any statements contained in this press release that do not describe historical facts constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. Any forward-looking statements contained herein are based on current expectations, but are subject to a number of risks and uncertainties. The factors that could cause the Company's actual future results to differ materially from current expectations include, but are not limited to, risks and uncertainties relating to the Company's ability to develop, market and sell products and services based on its technology; the expected benefits and efficacy of the Company's products, services and technology; the Company's ability to successfully complete studies and provide the technical information required to support market acceptance of its products, services and technology, on a timely basis or at all; the Company's business, research, product development, regulatory approval, marketing and distribution plans and strategies, including its use of third party distributors; the Company's ability to successfully complete the contracts and recognize the revenue represented by the contracts included in its previously reported total contract bookings and secure additional contracted collaborative relationships; the final results of the Company's preclinical studies may be different from the Company's studies or interim preclinical data results and may not support further clinical development of its therapeutic tissues; the Company may not successfully complete the required preclinical and clinical trials required to obtain regulatory approval for its therapeutic tissues on a timely basis or at all; and the Company's ability to meet its fiscal year 2017 outlook and/or its long-range outlook. These and other factors are identified and described in more detail in the Company's filings with the SEC, including its Annual Report on Form 10-K filed with the SEC on June 9, 2016 and its Quarterly Report on Form 10-Q filed with the SEC on February 9, 2017. 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, including the securities laws of the United States, 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.

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