

ORGANOVO HOLDINGS, INC.

FORM DEF 14A (Proxy Statement (definitive))

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

SCHEDULE 14A

**Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934
(Amendment No.)**

Filed by the Registrant ☒ Filed by a Party other than the Registrant ☐

Check the appropriate box:

- ☐ Preliminary Proxy Statement
- ☐ **Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- ☒ Definitive Proxy Statement
- ☐ Definitive Additional Materials
- ☐ Soliciting Material under §240.14a-12

Organovo Holdings, Inc.
(Name of Registrant as Specified In Its Charter)

Not Applicable
(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- ☒ No fee required.
- ☐ Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

- (1) Title of each class of securities to which transaction applies:
- (2) Aggregate number of securities to which transaction applies:
- (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
- (4) Proposed maximum aggregate value of transaction:
- (5) Total fee paid:

☐ Fee paid previously with preliminary materials.

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

(1) Amount Previously Paid:

(2)

Form, Schedule or Registration Statement No.:

(3)

Filing Party:

(4)

Date Filed:

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

July 10, 2015

Dear Stockholder:

You are cordially invited to attend this year's annual meeting of stockholders of Organovo Holdings, Inc. on Thursday, August 20, 2015 at 9:00 a.m. (local time). The meeting will be held at 10966 Torreyana Road, San Diego, California 92121.

We are pleased to take advantage of the rules established by the Securities and Exchange Commission (the "SEC") that allow companies to furnish proxy materials primarily over the internet. We believe that this will allow us to promptly provide proxy materials to you, while lowering the costs of distribution and reducing the environmental impact of our annual meeting.

On July 10, 2015, we mailed to our stockholders (other than those who previously requested electronic or paper delivery) a Notice of Internet Availability of Proxy Materials (the "Notice") containing instructions on how to access our proxy materials, including our Proxy Statement and Annual Report to Stockholders for the fiscal year ended March 31, 2015, over the internet. The Notice also provides instructions on how to vote online or by telephone and includes instructions on how you can receive a paper copy of the proxy materials by mail. If you receive your proxy materials by mail, the Annual Report, the Notice of 2015 Annual Meeting of Stockholders, the Proxy Statement, and proxy card will be enclosed.

The matters to be acted upon are described in the Notice of 2015 Annual Meeting of Stockholders and Proxy Statement. Following the formal business of the meeting, we will report on our operations and respond to questions from stockholders.

Whether or not you plan to attend the meeting, your vote is very important and we encourage you to vote promptly. You may vote by proxy over the internet or by telephone, or, if you received paper copies of the proxy materials by mail, you can also vote by mail by following the instructions on your proxy card. If you attend the meeting you will, of course, have the right to revoke your proxy and vote your shares in person. If you hold your shares through an account with a brokerage firm, bank or other nominee, please follow the instructions you receive from your brokerage firm, bank or other nominee to vote your shares.

We look forward to seeing you at the annual meeting.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Keith Murphy". The signature is fluid and cursive, with the first name "Keith" and last name "Murphy" clearly distinguishable.

Keith Murphy
Chairman of the Board, Chief Executive Officer and President

**ORGANOVO HOLDINGS, INC.
NOTICE OF 2015 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON AUGUST 20, 2015**

To Our Stockholders:

The 2015 Annual Meeting of Stockholders (the “Annual Meeting”) of Organovo Holdings, Inc. (“Organovo” or the “Company”) will be held at 10966 Torreyana Road, San Diego, California 92121 on Thursday, August 20, 2015 at 9:00 a.m. (local time) for the following purposes:

1. To elect Keith Murphy and Kirk Malloy, Ph.D. as Class I Directors to hold office until the 2018 Annual Meeting of Stockholders and until their respective successors are elected and qualified;
2. To ratify the appointment of Mayer Hoffman McCann P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2016;
3. To hold a non-binding advisory vote on the compensation of our named executive officers;
4. To approve an amendment and restatement of our 2012 Equity Incentive Plan, which among other changes described in our Proxy Statement, increases the number of shares of Common Stock issuable under the Plan by 6,000,000 shares; and
5. To transact such other business as may properly be brought before the Annual Meeting or any adjournments or postponements thereof.

Our Board of Directors recommends a vote **FOR** each of the director nominees and **FOR** proposals 2, 3 and 4 listed above. Stockholders of record at the close of business on June 22, 2015 are entitled to notice of, and to vote on, all matters at the meeting and any reconvened meeting following any adjournments or postponements thereof. For ten days prior to the Annual Meeting, a complete list of stockholders entitled to vote at the Annual Meeting will be available for examination by any stockholder, for any purpose relating to the Annual Meeting, during ordinary business hours at our corporate offices located at 6275 Nancy Ridge Dr., Suite 110, San Diego, California 92121.

All stockholders are invited to attend the Annual Meeting in person. Whether or not you expect to attend the Annual Meeting, you are urged to vote or submit your proxy as soon as possible so that your shares can be voted at the Annual Meeting in accordance with your instructions. Telephone and internet voting are available. For specific instructions on voting, please refer to the instructions in the Notice of Internet Availability of Proxy Materials or the proxy card. If you hold your shares through an account with a brokerage firm, bank or other nominee, please follow the instructions you receive from them to vote your shares.

Important Notice Regarding Availability of Proxy Materials for the Annual Meeting: Our Notice of 2015 Annual Meeting of Stockholders, Proxy Statement and Annual Report are available at www.proxydocs.com/onvo.

By Order of the Board of Directors



Keith Murphy
Chairman of the Board, Chief Executive Officer and President

July 10, 2015



2015 Proxy Statement Summary

To assist you in reviewing the Proxy Statement for the Organovo Holdings, Inc. (“Organovo” or the “Company”) 2015 Annual Meeting of Stockholders (the “Annual Meeting”), we call your attention to the following summary information about the Annual Meeting and the proposals to be considered at the Annual Meeting. For more complete information, please review our Proxy Statement and Annual Report for the fiscal year ended March 31, 2015. We encourage you to vote your shares at the Annual Meeting. If you are unable to attend the Annual Meeting in person, we encourage you to submit a proxy so that your shares will be represented and voted.

Annual Meeting of Stockholders

- **Date and Time:** August 20, 2015 at 9:00 a.m. (local time)
- **Place:** 10966 Torreyana Road, San Diego, California 92121
- **Record Date:** June 22, 2015
- **Voting:** If you were a “stockholder of record” or beneficial owner of shares held in “street name” as of the Record Date, you may vote your shares. You may vote in person at the Annual Meeting or by the internet, telephone or mail. See the “General Information – Voting Instructions” in the Proxy Statement for more detail regarding how you may vote your shares.
- **Admission:** You are entitled to attend the Annual Meeting if: (i) you were an Organovo stockholder as of the Record Date (or you are attending as a named representative of a stockholder or you are an immediate family member attending as a guest of a stockholder); and (ii) you present proof of ownership of Organovo common stock as of the Record Date. In addition, all stockholders, immediate family member guests and representatives will be required to present government-issued photo identification (*e.g.*, driver’s license or passport) to gain admission to the Annual Meeting. Cameras and electronic recording devices are not permitted at the Annual Meeting.

Proposals and Voting Recommendations

	<u>Board Vote Recommendation</u>	<u>Page References (for more detail)</u>
Proposals:		
(1) Election of two Class I directors to hold office until the 2018 Annual Meeting of Stockholders and until their respective successors are elected and qualified.	FOR EACH NOMINEE	34
(2) Ratification of appointment of Mayer Hoffman McCann P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2016.	FOR	35
(3) Non-binding advisory vote on the compensation of our named executive officers.	FOR	38
(4) Approval of an amendment and restatement of our 2012 Equity Incentive Plan, which among other changes described in the Proxy Statement, increases the number of shares of common stock issuable under the Plan by 6,000,000 shares.	FOR	39

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Corporate Governance Summary Facts

The following table summarizes our current Board structure and key elements of our corporate governance framework:

Size of Board	6
Number of Independent Directors	5
Chairman and CEO	Combined
Lead Independent Director	Yes
Board Self-Evaluation	Annual
Review of Independence of Board	Annual
Independent Directors Meet Without Management Present	Yes
Annual Director Elections	No
Voting Standard for Election of Directors in Uncontested Elections	Plurality
Diverse Board (as to background, experience and skills)	Yes

Fiscal 2015 Corporate Highlights

During Fiscal 2015, the Company achieved a number of corporate milestones and successes, including:

- Successfully launched its first commercial product, the exVive3D™ Human Liver Tissue, in November 2014.
- Partnered with L'Oreal USA in skin engineering to develop 3D printed skin tissues for product evaluation and other areas of advanced research. The partnership marks the first-ever application of Organovo's novel bioprinting technology within the beauty industry.
- Presented data on the Company's *in vitro* 3D kidney tissue demonstrating proof of concept. The Company generated the first fully human kidney proximal tubular tissues that are 3D, and consist of multiple tissue-relevant cell types arranged to recapitulate the renal tubular / interstitial interface.
- Released the exVive3D Human Liver Tissue for preclinical drug discovery testing, intended to provide human-specific data to aid in the prediction of liver tissue toxicity or ADME outcomes in later stage preclinical drug discovery programs. The tissues produce important liver proteins, including albumin, fibrinogen and transferrin, synthesize cholesterol, and possess inducible cytochrome P450 enzymatic activities, including CYP 1A2 and CYP 3A4. The tissues have successfully differentiated between structurally related compounds with known toxic and non-toxic profiles in human beings, when such compounds were not successfully differentiated by other available *in vitro* and *in vivo* methods.
- Won the Diagnostics & Research Tools category for the 2014 Most Innovative New Product Awards, sponsored by CONNECT, a regional program that catalyzes the creation of innovative technology and life sciences products.
- exVive3D Human Liver Tissue named one of the Top 10 Innovations for 2014 by The Scientist magazine.
- Formed a collaboration with the Yale School of Medicine to develop 3D organ tissues for surgical transplantation research, made possible by a generous gift from the Methuselah Foundation. The collaboration combines Yale's expertise and technology with the Company's, representing one important step in progressing towards developing implantable, therapeutic tissues.
- Added Kirk Malloy, Ph.D. to the Company's Board of Directors. Dr. Malloy has held management and executive leadership positions in rapidly growing life science and diagnostics companies for over 18 years. He is currently Senior Vice President and General Manager of Life Sciences at Illumina, a leading developer and supplier of genetic analysis instrumentation, assays and software for the life sciences and diagnostics markets, and is experienced in advancing industry-changing technology platforms and building commercial growth in the life sciences markets.

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- Recognized as a 2015 Technology Pioneer by the World Economic Forum (WEF). Organovo was one of 24 companies honored for the ability to harness creativity to design and create transformative solutions.
- Named in Fast Company magazine as one of The World's Top 10 Most Innovative Companies of 2015 in Health Care.

Proposal 1: Director Nominees

The following table provides summary information about each of the two directors nominated for election to serve as Class I directors to hold office until the 2018 Annual Meeting of Stockholders:

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation</u>	<u>Experience/Qualifications</u>	<u>Current Committee Memberships</u>	<u>Independent?</u>
Keith Murphy	43	2007	President and CEO, Organovo Holdings, Inc.	• Leadership • Industry • Education	• Science & Technology	No
Kirk Malloy, Ph.D.	48	2014	Senior VP and General Manager, Illumina, Inc.	• Leadership • Industry • Management	• Compensation, Nominating, Science & Technology	Yes

Proposal 2: Ratification of Auditors

As a matter of good corporate governance, we are asking our stockholders to ratify the Audit Committee's selection of Mayer Hoffman McCann P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2016.

Proposal 3: Advisory Vote to Approve Compensation of Named Executive Officers

We are asking our stockholders to provide an advisory vote relating to the compensation of our named executive officers. Our Compensation Committee has designed our executive compensation program to attract and retain talented executives, to motivate them to achieve our key financial, operational and strategic goals, and to reward them for superior performance. Our executive compensation program is also intended to align our executive officers' interests with those of our stockholders by rewarding their achievement of the specific corporate and individual goals set by our Compensation Committee. Our corporate performance goals are focused on advancing our technology platform and achieving our product development and commercialization objectives and, thereby, increasing long-term stockholder value. Our stockholders have demonstrated strong support for our executive compensation program by casting approximately 85% of their votes in favor of our "say-on-pay" proposal related to our Fiscal 2014 executive compensation, and we retained the design of our Fiscal 2014 executive compensation program for Fiscal 2015.

For Fiscal 2015, the compensation of our named executive officers consisted of a base salary, a performance-based cash bonus and a long-term equity-based award. The Compensation Committee evaluates the base salaries of our executive officers annually based on the Company's overall performance during the prior fiscal year; the executive officer's responsibilities; each executive officer's individual performance and contribution to the achievement of the prior year's corporate goals; and relevant market data from a peer group selected by the Compensation Committee. Our performance-based cash bonuses are awarded based upon achievement of corporate and individual performance goals evaluated and approved by our Compensation Committee. Our named executive officers achieved annual bonuses ranging between 31.5% and 52.5% of their respective base salaries based on the achievement of the corporate and individual performance goals set for Fiscal 2015. Our long-term equity-based awards consisted of stock options to purchase shares of our common stock. Our Compensation Committee determined that stock options provide our executive officers with an

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incentive to continue to focus on the Company's long-term financial performance and increasing stockholder value.

Performance and Incentive Based. Our executive compensation program focuses on creating alignment between our stockholders and executive officers by including both performance and incentive based compensation elements. Under our performance-based cash bonus plan, our executive officers are eligible for an annual cash bonus based on a percentage of their base salaries and conditioned upon their achievement of corporate and individual performance goals evaluated and approved by our Compensation Committee. In addition, under our long-term equity incentive plan, our executive officers receive stock options to purchase shares of our common stock with an exercise price equal to the fair market value of our common stock on the date of grant. The stock options vest over a four-year period, and incentivize our executive officers to focus on Company's long-term financial performance and increasing stockholder value.

Table 1 below illustrates that a significant percentage of the target total direct compensation ("TTDC") offered to our named executive officers for Fiscal 2015 consisted of performance and incentive based compensation.

Table 1 – TTDC for Fiscal 2015 – Named Executive Officers

Executive Officer	Salary (\$)	Target Performance- Based Cash Bonus (\$)	Incentive Based Option Awards \$(1)	TTDC (\$)	TTDC Subject to Performance Goals or Incentive Based (\$)	TTDC Subject to Performance Goals or Incentive Based (%)
Keith Murphy	\$465,000	\$ 232,500	\$ 117,836	\$ 815,336	\$ 350,336	43%
Barry Michaels	\$340,000	\$ 119,000	\$ 544,357	\$1,003,357	\$ 663,357	66%
Sharon Presnell	\$330,000	\$ 115,500	—	\$ 445,500	\$ 115,500	26%
Eric David	\$310,000	\$ 108,500	—	\$ 418,500	\$ 108,500	26%
Jennifer Bush	\$148,750	\$ 64,625	\$ 689,687	\$ 903,062	\$ 754,312	84%

(1) Represents the grant date fair value of the stock option awards, calculated in the same manner as reported in the Summary Compensation Table included in this Proxy Statement.

In the tables that follow, we compare the TTDC offered to our chief executive officer for the last three full fiscal years and a transition period that occurred during the first quarter of calendar 2013 (Table 2) to the corresponding amounts that were paid out or that may be considered realized (based on our methodology described below) as of March 31, 2015 (Table 3). The 2013 Transition Period resulted from the decision by our Board of Directors in early 2013 to change the Company's fiscal year from December 31st to March 31st to allow the Company's shares of common stock to qualify for listing on the NYSE MKT, which occurred on July 11, 2013. As a result, Tables 2 and 3 below present information for the fiscal years ended March 31, 2015 and 2014, the three-month Transition Period ended March 31, 2013 (the "2013 Transition Period") and the fiscal year ended December 31, 2012.

In addition, as a result of the Company's change in its fiscal year from December 31st to March 31st in 2013, the timing of the Compensation Committee's approval of the long-term equity awards granted to our chief executive officer (and our other executive officers) transitioned from occurring after the start of the applicable fiscal year to occurring before the start of the applicable fiscal year. Specifically, the Stock Awards and Option Awards reported in our Summary Compensation Table and in Tables 2 and 3 below reflect the following: (i) the Stock Awards reported for Fiscal 2012 (i.e., the period from January 1, 2012 to December 31, 2012) represent our chief executive officer's long-term equity award for Fiscal 2012; (ii) the Option Awards reported for the 2013 Transition Period (i.e., the period from January 1, 2013 to March 31, 2013) represent our chief executive officer's long-term equity award for Fiscal 2014 (i.e., the period from April 1, 2013 to March 31, 2014); and (iii) the Option Awards reported for Fiscal 2014 represent our chief executive officer's long-term equity award for Fiscal 2015 (i.e., the period from April 1, 2014 to March 31, 2015). The Option Awards reported for Fiscal

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2015 represent stock options issued to our chief executive officer pursuant to the terms of a contractual agreement we entered into with our chief executive officer during Fiscal 2012, and do not represent his long-term equity award for Fiscal 2016 (i.e., the period from April 1, 2015 to March 31, 2016). The Compensation Committee granted our chief executive officer's long-term equity award for Fiscal 2016 in June 2015, and as a result that stock option award will be reported in the Summary Compensation Table included in next year's proxy statement.

Table 2 presents each component of our chief executive officer's TTDC for each of the last three full fiscal years and the 2013 Transition Period. The Stock Award and Option Award amounts presented in Table 2 reflect the grant date fair value of each such award, calculated in the same manner as reported in the Summary Compensation Table included in this Proxy Statement.

Table 2 – TTDC – Chief Executive Officer

Fiscal Year	Salary (\$)	Target Performance- Based Cash Bonus (\$)	Incentive Based Stock Awards (\$)	Performance Based Stock Awards (\$)	Incentive Based Option Awards (\$)	TTDC (\$)
2015	\$ 465,000	\$ 232,500	—	—	\$ 117,836	\$ 815,336
2014	\$ 365,000	\$ 135,050	—	—	\$4,190,665	\$4,690,715
2013 Transition Period	\$ 91,250	\$ 33,763	—	—	\$ 741,131	\$ 866,144
2012	\$ 321,000	\$ 96,300	\$340,000	\$ 340,000	—	\$1,097,300
3-Year Total plus 2013 Transition Period	\$1,242,250	\$ 497,613	\$340,000	\$ 340,000	\$5,049,632	\$7,469,495

Table 3 below reflects the realized total direct compensation ("RTDC") of our chief executive officer for the last three full fiscal years and the 2013 Transition Period. The RTDC reflects: (i) the actual salary paid to our chief executive officer during the applicable periods, (ii) the actual performance based cash bonuses awarded to our chief executive officer by our Compensation Committee during the applicable periods, (iii) the actual performance based Stock Awards our chief executive officer vested in based on his partial achievement of the applicable performance goals and (iv) the intrinsic value of the Stock Awards and Options Awards granted to our chief executive officer. We calculated the intrinsic value for the incentive and performance-based Stock Awards by multiplying the number of vested shares of common stock delivered to our chief executive officer by the closing price of our common stock on the NYSE MKT on March 31, 2015. We determined the intrinsic value of each of the incentive based Option Awards was zero because the respective exercise prices of the Option Awards exceeded the closing price of our common stock on the NYSE MKT on March 31, 2015.

Table 3 – RTDC as a Percentage of TTDC – Chief Executive Officer

Fiscal Year	Actual Salary (\$)	Actual Performance- Based Cash Bonus (\$)	Value of Incentive Based Stock Awards at 3/31/2015 (\$)	Value of Performance Based Stock Awards at 3/31/2015 (\$)	Intrinsic Value of Incentive Based Option Awards at 3/31/2015 (\$)	RTDC at 3/31/2015 (\$)	RTDC at 3/31/2015 as a Percentage of TTDC (%)
2015	\$ 469,897	\$ 246,696	—	—	—	\$ 716,593	88%
2014	\$ 362,877	\$ 128,052	—	—	—	\$ 490,929	10%
2013 Transition Period	\$ 82,658	\$ 32,013	—	—	—	\$ 114,671	13%
2012	\$ 298,885	\$ 90,667	\$708,000	\$ 531,000	—	\$1,628,552	148%
3-Year Total plus 2013 Transition Period	\$1,214,317	\$ 497,428	\$708,000	\$ 531,000	—	\$2,950,745	
Comparison to Table 2 Amount (%)	98%	100%	208%	156%	0%	40%	

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Good Compensation Practices . Our executive compensation philosophy and program also reflect our commitment to good compensation governance. The following aspects of our executive compensation program during Fiscal 2015 reinforce this:

Advisory Vote on Executive Compensation	Annual
Independent Compensation Consultant	Yes
Stock Ownership Guidelines	Yes
Compensation Risk Assessment	Annual
Hedging, Pledging and Margin Activities	Prohibited
Contractual Tax Gross Ups	None

Additional information about our compensation philosophy and program, including the compensation determinations for each of our named executive officers, can be found in the “Compensation Discussion and Analysis” commencing on page 18 of the Proxy Statement.

Proposal 4: Amendment and Restatement of the 2012 Equity Incentive Plan

We are asking the Company’s stockholders to approve an amendment and restatement of our 2012 Equity Incentive Plan (the “Amended Plan”) to, among the other changes described below, increase the number of shares of our common stock available for issuance under the 2012 Equity Incentive Plan by 6,000,000 shares. Approval of the Amended Plan will allow us to continue providing the appropriate equity incentives that are critical to attracting and retaining the best personnel.

In addition to increasing the number of shares reserved for future issuance under the Plan, the Amended Plan:

- Removes the exchange program from the Plan, which previously allowed for the surrender of outstanding awards for awards of the same type (which may have had lower exercise prices or different terms), awards of a different type and/or cash.
- Provides that any (i) shares withheld by the Company or tendered to the Company to pay taxes and/or the exercise price of an award under the Plan and (ii) unvested shares of restricted stock, restricted stock units, performance shares or performance units that are repurchased by the Company will not become available for future grant under the Plan.
- Removes the ability of our Board to (i) reduce the exercise price of any outstanding awards granted under the Plan or (ii) cancel or exchange an outstanding award for cash or any other award with an exercise price that is less than the exercise price of an original award (except in connection with certain corporate transactions) without stockholder approval.
- Provides that no award shall contain a reload feature that results in a new option granted automatically upon delivery of shares to the Company in payment of the exercise price or any tax withholding obligation.
- Provides that in the event the Company declares a dividend or dividend equivalent payment, participants who hold performance-based awards subject to performance goals will not be eligible to receive any dividend or dividend equivalent unless the applicable performance goals are met and the underlying award vests.
- Provides that all awards granted under the Plan will be subject to any clawback or recoupment policy adopted by the Company, unless otherwise specified in the award agreement or determined by the Plan administrator in its sole discretion.

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ORGANOVO HOLDINGS, INC.
6275 Nancy Ridge Dr., Suite 110,
San Diego, California 92121

**PROXY STATEMENT FOR THE 2015 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD AUGUST 20, 2015**

**This Proxy Statement, along with a proxy card,
is being made available to our stockholders on or about July 10, 2015**

GENERAL INFORMATION

We have made these proxy materials available to you in connection with the solicitation by the Board of Directors (the “Board” or “Board of Directors”) of Organovo Holdings, Inc. of proxies to be voted at the 2015 Annual Meeting of Stockholders (the “Annual Meeting”) to be held on Thursday, August 20, 2015 at 10966 Torreyana Road, San Diego, California 92121 at 9:00 a.m. (local time) and at any adjournments or postponements thereof. References in this proxy statement to the “Company,” “we,” “our,” and “us” are to Organovo Holdings, Inc. and its subsidiaries.

In accordance with the rules of the Securities and Exchange Commission (the “SEC”), we are permitted to furnish proxy materials, including this Proxy Statement and our Annual Report for the fiscal year ended March 31, 2015 (the “Annual Report”) to stockholders by providing access to these documents through the internet instead of mailing printed copies. Most stockholders will not receive printed copies of the proxy materials unless requested. Instead, the Notice of Internet Availability of Proxy Materials provides instructions on how to access and review the proxy materials on the internet. The Notice of Internet Availability of Proxy Materials also provides instructions on how to cast your vote via the internet or by telephone. If you would like to receive a printed or email copy of our proxy materials, please follow the instructions for requesting the materials in the Notice of Internet Availability of Proxy Materials.

Record Date

Holders of shares of our common stock, our only class of issued and outstanding voting securities, at the close of business on June 22, 2015 (the “Record Date”) are entitled to vote on the proposals presented at the Annual Meeting. As of June 22, 2015, we had 81,592,413 issued and outstanding shares of common stock.

Quorum

The presence, in person or by proxy, of the holders of a majority of the outstanding shares of common stock entitled to vote at the Annual Meeting is necessary to constitute a quorum for the transaction of business at the Annual Meeting. Votes for and against, abstentions and “broker non-votes” will each be counted as present for purposes of determining the presence of a quorum.

The Annual Meeting may be adjourned or postponed from time to time and at any reconvened meeting, action with respect to the matters specified in this proxy statement may be taken without further notice to stockholders except as required by applicable law and our charter documents.

Stockholders of Record

You are a “stockholder of record” if your shares are registered directly in your name with our transfer agent, Continental Stock Transfer and Trust Company. As a stockholder of record, you have the right to grant your voting proxy directly to the Company or to vote in person at the Annual Meeting.

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Shares Held in Street Name

You are deemed to beneficially own your shares in “street name” if your shares are held in an account at a brokerage firm, bank, broker-dealer, trust or other similar organization. If this is the case, you will receive a separate voting instruction form with this Proxy Statement from such organization. As the beneficial owner, you have the right to direct your broker, bank, trustee, or nominee how to vote your shares, and you are also invited to attend the Annual Meeting. If you hold your shares in street name and do not provide voting instructions to your broker, bank, trustee or nominee, your shares will not be voted on any proposals on which such party does not have discretionary authority to vote (a “broker non-vote”), as further described below under the heading “Broker Non-Votes.”

Please note that if your shares are held of record by a broker, bank, trustee or nominee and you wish to vote at the Annual Meeting, you will not be permitted to vote in person unless you first obtain a proxy issued in your name from the record holder.

Broker Non-Votes

Broker non-votes are shares held by brokers, banks or other nominees who are present in person or represented by proxy, but which are not voted on a particular matter because the brokers, banks or nominees do not have discretionary authority with respect to that proposal and they have not received voting instructions from the beneficial owner. Under the rules that govern brokers, brokers have the discretion to vote on routine matters, but not on non-routine matters. The only routine matter to be considered at the Annual Meeting is the ratification of the appointment of the Company’s independent registered public accountants. The remaining proposals to be considered at the Annual Meeting are considered to be non-routine matters. *As a result, if you do not provide your brokers or nominees with voting instructions on these non-routine matters, your shares will not be voted on these proposals.*

Voting Matters

Stockholders are entitled to cast one vote per share of common stock on each matter presented for consideration by the stockholders. A list of stockholders entitled to vote at the Annual Meeting will be available for examination by any stockholder for a proper purpose during normal business hours at the executive offices of the Company for a period of at least 10 days preceding the day of the Annual Meeting.

The specific vote required for the election of directors and for the approval of each of the other proposals is set forth under each proposal.

There are four proposals scheduled to be voted on at the Annual Meeting:

1. To elect Keith Murphy and Kirk Malloy, Ph.D. as Class I Directors to hold office until the 2018 Annual Meeting of Stockholders and until their respective successors are elected and qualified;
2. To ratify the appointment of Mayer Hoffman McCann P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2016;
3. To hold a non-binding advisory vote on the compensation of our named executive officers; and
4. To approve an amendment and restatement of our 2012 Equity Incentive Plan, which among other changes described in our Proxy Statement, increases the number of shares of Common Stock issuable under the Plan by 6,000,000 shares.

Our Board of Directors recommends a vote **FOR** each of the director nominees and **FOR** proposals 2, 3 and 4 listed above. The specific vote required for the election of directors and for the approval of each of the other proposals is set forth under each proposal.

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We are currently unaware of any matters to be raised at the Annual Meeting other than those referred to in this Proxy Statement. If other matters are properly presented at the Annual Meeting for consideration and you are a stockholder of record and have submitted your proxy, the persons named in your proxy will have the discretion to vote on those matters for you.

Voting Instructions

If you are a stockholder of record, you can vote in the following ways:

- **By Internet** : by following the internet voting instructions included on Notice of Internet Availability of Proxy Materials and the proxy card at any time up until 11:59 p.m., Eastern Time, on August 19, 2015.
- **By Telephone** : by following the telephone voting instructions included on Notice of Internet Availability of Proxy Materials and the proxy card at any time up until 11:59 p.m., Eastern Time, on August 19, 2015.
- **By Mail** : you may vote by mail by marking, dating and signing your proxy card in accordance with the instructions on it and returning it by mail in the pre-addressed reply envelope provided with the proxy materials. The proxy card must be received prior to the Annual Meeting.

You may also vote your shares in person at the Annual Meeting. Even if you plan to attend the Annual Meeting, we encourage you to vote in advance by internet, telephone or mail so that your vote will be counted in the event you later decide not to attend the Annual Meeting.

If your shares are held in street name, please follow the separate voting instructions you receive from your broker, bank, trustee or other nominee.

Proxies

All shares represented by a proxy will be voted, and where a stockholder specifies a choice with respect to any matter to be acted upon, the shares will be voted in accordance with the specification so made. If a stockholder does not indicate a choice on the proxy card, the shares will be voted in favor of the election of the nominees for director contained in this Proxy Statement, in favor of ratifying Mayer Hoffman McCann as the Company's independent registered public accounting firm for the fiscal year ended March 31, 2016, in favor of the non-binding advisory vote on the compensation of our named executive officers, in favor of the amendment and restatement of our 2012 Equity Incentive Plan and in the discretion of the proxy holders on any other matter that comes before the meeting.

If your shares are held by a broker, bank or other stockholder of record, in nominee name or otherwise, exercising fiduciary powers (typically referred to as being held in "street name"), you may receive a separate voting instruction form with this Proxy Statement. Your broker may vote your shares on the proposal to ratify our independent auditors, but will not be permitted to vote your shares with respect to the election of directors or on any of the other proposals unless you provide instructions as to how to vote your shares. Please note that if your shares are held of record by a broker, bank or nominee and you wish to vote at the meeting, you will not be permitted to vote in person unless you first obtain a proxy issued in your name from the record holder.

Proxy Revocation Procedure

If you are a stockholder of record, you may revoke your proxy: (i) by written notice of revocation mailed to and received by the Secretary of the Company prior to the date of the Annual Meeting, (ii) voting again via the internet or by telephone at a later time before the closing of those voting facilities at 11:59 p.m. (Eastern) on August 19, 2015, (iii) by executing and delivering to the Secretary a proxy dated as of a later date than a previously executed and delivered proxy (provided, however, that such action must be taken prior to 11:59 p.m. (Eastern Time) on August 19, 2015), or (iv) by attending the Annual Meeting and voting in person. Attendance at the Annual Meeting will not in and of itself revoke a proxy.

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If your shares are held by a bank, broker or other agent, you may change your vote by submitting new voting instructions to your bank, broker or other agent, or, if you have obtained a legal proxy from your bank, broker or other agent giving you the right to vote your shares, by attending the Annual Meeting and voting in person.

Voting Results

We will announce preliminary voting results at the Annual Meeting. We will report final results in a Form 8-K report filed with the SEC.

BOARD OF DIRECTORS INFORMATION

Presently, the number of directors comprising our Board of Directors is six. Our Board is divided into three classes, with one class standing for election each year for a three-year term. There are two Class I directors, two Class II directors, and two Class III directors. The Class I directors are Keith Murphy, our Chairman, Chief Executive Officer and President, and Kirk Malloy, Ph.D., whose terms will expire at the Annual Meeting. Tamar Howson and Richard Heyman, Ph.D. are our Class II directors, whose terms will expire at our 2016 Annual Meeting of Stockholders. Robert Baltera, Jr. and James Glover are our Class III directors, whose terms will expire at our 2017 Annual Meeting of Stockholders.

The Board, based on the recommendation of the Nominating and Corporate Governance Committee, has nominated Keith Murphy and Kirk Malloy, Ph.D. for election at the Annual Meeting as Class I directors, for a three-year term expiring at the 2018 Annual Meeting of Stockholders. Directors are elected by a plurality of the votes cast at the Annual Meeting, which means that the two director nominees receiving the highest number of “FOR” votes will be elected as Class I directors. Both Mr. Murphy and Dr. Malloy have indicated their willingness to serve if elected, but if either should be unable or unwilling to stand for election, the shares represented by proxies may be voted for a substitute as the Board may designate, unless a contrary instruction is indicated in the proxy.

In addition to the information set forth below regarding our directors and our director candidates and the skills that led our Board to conclude that these individuals should serve as directors, we also believe that all of our directors and director nominees have a reputation for integrity, honesty and adherence to the highest ethical standards. We believe they each have demonstrated business acumen and an ability to exercise sound judgment, as well as a commitment of service to our Company and our Board.

Our Board of Directors

The following sets forth information regarding the business experience of our current directors and our director nominees as of July 10, 2015:

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
Keith Murphy	43	Chairman of the Board, Chief Executive Officer, President and Director Nominee
Kirk Malloy, Ph.D.	48	Director and Director Nominee
James Glover	65	Director
Tamar Howson	66	Director
Robert Baltera, Jr.	50	Lead Director
Richard A. Heyman, Ph.D.	58	Director

Nominees for Election as Class I Directors for a Term Expiring at the 2018 Annual Meeting of Stockholders

Keith Murphy, Chairman of the Board, Chief Executive Officer, President and Director Nominee, is one of the Company’s founders and has served as our President, Chief Executive Officer and Chairman since joining the Company in July 2007. Mr. Murphy previously served at Alkermes, Inc., a biotechnology company, from July 1993 to July 1997, where he played a role on the development team for their first approved product, Nutropin (hGH) Depot. He moved to Amgen, Inc. in August 1997, where he worked on the development of several other novel formulation and device products. He has over 21 years of experience in biotechnology, including serving in Product Strategy and Director of Process Development roles at Amgen through July 2007. He was previously Global Operations Leader for the osteoporosis/bone cancer drug Prolia/Xgeva (denosumab), the development of which involved several indications across multiple global Phase 3 studies, and which now has annual revenues approaching \$2.5 billion per year. He holds a BS in Chemical Engineering from MIT, and is an alumnus of the UCLA Anderson School of Management.

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Mr. Murphy's previous experience in the biotechnology field, especially in developing novel products, his experience and expertise with our 3D bioprinting technology and product development opportunities and strategy, and his educational experience qualify him to be a member of our Board of Directors.

Kirk Malloy, Ph.D., Director and Director Nominee, joined our board in December 2014. Dr. Malloy has held management and executive leadership positions in rapidly growing life science and diagnostic companies for 18 years. He is currently the Senior Vice President and General Manager of the Life Sciences Business of Illumina, Inc., a position he has held since January 2014. The Life Sciences Business is Illumina's largest business unit, with annual revenues greater than \$1 billion. Dr. Malloy joined Illumina in 2002, and has served in a number of executive leadership positions, including Vice President, Global Customer Solutions from 2007 to 2013, Vice President, Global Quality from 2005 to 2007 and Senior Director, Global Customer Solutions from 2002 to 2005. Prior to joining Illumina, Dr. Malloy held leadership positions at Biosite, Inc. and commercial management positions at Qiagen, Inc. Before joining the industry, Dr. Malloy spent several years as an academic scientist teaching and conducting research. Dr. Malloy received his B.S. degrees in Biology and Marine Science from the University of Miami, College of Arts & Sciences and his M.S. and Ph.D. degrees in Marine Biology/Biochemistry from the University of Delaware, College of Earth, Ocean and Environment and held post-doctoral positions at Boston University and Northeastern University. He completed a certification for Corporate Directors at UCLA's Anderson School in 2012. Dr. Malloy has 12 peer-reviewed publications and book chapters, dozens of invited and contributed scientific presentations and has been a reviewer for various scientific journals.

Dr. Malloy's managerial and leadership experience at Illumina and other publicly-traded biotechnology companies, including his many years of experience in managing and supervising the commercialization of biotechnology products permit him to contribute valuable strategic management insight, and qualify him to be a member of our Board of Directors.

Class II Directors Continuing in Office until the 2016 Annual Meeting of Stockholders

Tamar Howson , Director, joined our Board in June 2013. Ms. Howson has served as a corporate business development and strategy consultant to biopharmaceutical companies since 2011. From 2009 to 2011, she served as a member of the transaction advisory firm, JSB-Partners, providing business development support to life sciences companies. From 2007 to 2008, Ms. Howson served as Executive Vice President, Corporate Business Development at Lexicon Pharmaceuticals, a biotech company. Prior to joining Lexicon Pharmaceuticals, Ms. Howson served as Senior Vice President, Corporate and Business Development at Bristol-Myers Squibb. Ms. Howson currently serves on the board of directors of the following publicly traded companies: OXiGENE, Inc.; Cynapsus Therapeutics Inc. and Enzymotec PLC. During the prior five years, Ms. Howson served as a director of the following publicly traded companies: Actavis plc; Idenix Pharmaceuticals Inc.; Warner Chilcott plc; Soligenix, Inc. and Cardax, Inc. In addition, Ms. Howson serves as a director of the International Partnership for Microbicides, a non-profit product development partnership. She previously served on the boards of Aradigm, S*Bio, Ariad Pharmaceuticals, SkyePharma, NPS Pharma, Targacept, and HBA. Ms. Howson holds an MBA from Columbia University, a MS from City University of New York, and a BS in Chemical Engineering from the Technion, Israel.

Ms. Howson's extensive experience in the pharmaceutical and biotech industries, including as a corporate business development and strategy consultant to biopharmaceutical companies and as a senior professional at leading pharmaceutical companies, including Bristol-Myers Squibb and SmithKline Beecham, and her past and current service on the boards of directors of other public and private companies qualify her to be a member of our Board of Directors.

Richard A. Heyman, Ph.D., Director, joined our Board in August 2013. Dr. Heyman most recently served as the Chief Executive Officer of Seragon Pharmaceuticals, Inc., a private biotechnology company focused on developing Selective Estrogen Receptor Degraders (SERDs) targeting hormone dependent cancers, which was acquired by Genetech in August 2014 for \$725 million in cash and \$1.0 billion in contingent development

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milestones. Prior to joining Seragon, Dr. Heyman served as the Chief Executive Officer of Aragon Pharmaceuticals, which he cofounded in 2009 and was acquired by Johnson and Johnson in August 2013 for \$650 million in cash and \$350 million in contingent development milestones. Previously, he cofounded and served as Chief Scientific Officer of X-Ceptor Therapeutics, a company that developed compounds targeting nuclear receptors for the treatment of metabolic diseases, which was acquired by Exelixis in 2004. Prior to X-Ceptor, he held various roles at Ligand Pharmaceuticals, last serving as Vice President of Research, where he served as project leader for multiple discovery programs, including the successful identification and development of Panretin[®] and Targretin[®], retinoids approved by the FDA for the treatment of cancer. He is the author or inventor on more than 120 publications and patents. He was an NIH postdoctoral fellow and staff scientist at the Salk Institute, working with Dr. Ronald Evans. Dr. Heyman received a Ph.D. in pharmacology from the University of Minnesota and a BS in chemistry from the University of Connecticut.

Dr. Heyman's previous executive leadership experience in the biotechnology field, especially in leading companies focused on identifying and developing novel drugs, and his educational experience qualify him to be a member of our Board of Directors.

Class III Directors Continuing in Office until the 2017 Annual Meeting of Stockholders

James T. Glover, Director, joined us in July 2012. Mr. Glover was the Senior Vice President, Operations and Chief Financial Officer of Anadys Pharmaceuticals, Inc., a publicly-held biopharmaceutical company acquired by Hoffmann-La Roche Inc., from 2006 to 2009. From 1989 to 2006, he served at Beckman Coulter, Inc., a leading biomedical testing instruments company, most recently as Senior Vice President and Chief Financial Officer. Mr. Glover served as a director of Varian, Inc., a publicly-traded scientific instruments company purchased by Agilent Technologies, and was Varian's audit committee chairman. Mr. Glover received his BS in accounting from California State Polytechnic University and his MBA from Pepperdine University. Mr. Glover attended the Director Education and Certification program at the University of California, Los Angeles and passed the certification exam. Mr. Glover is a certified public accountant (CPA) and a chartered global management accountant (CGMA).

Mr. Glover's previous service as a Chief Financial Officer for a number of public companies, his past and current Board experience on a number of public companies and his finance and accounting expertise and experience qualify him to be a member of our Board of Directors.

Robert Baltera, Jr., Lead Director, joined us as a director in October 2009 and has served as our Lead Director since June 2014. Mr. Baltera currently serves as Chief Executive Officer and a member of the board of directors of Laguna Pharmaceuticals, a privately-funded biotechnology company. Mr. Baltera was the Chief Executive Officer of Amira Pharmaceuticals, a private pharmaceutical development company, a position he held from July 2007 through September 2011. Amira was sold to Bristol-Myers Squibb in September 2011 for \$325 million in cash, plus additional milestone payments of up to \$150 million. Before becoming Amira's Chief Executive Officer, he held a number of senior management positions at Amgen Inc., a publicly-held biopharmaceutical company, the last being Vice President of Corporate and Contract Manufacturing. During his service at Amgen, he was instrumental in focusing the company's development efforts, strengthening and developing its pipeline and forging key collaborations with partners such as GlaxoSmithKline. He also served as Amgen's team leader responsible for the approval of Kineret[®] in rheumatoid arthritis. Mr. Baltera currently serves on the board of directors of Xencor, Inc., a publicly-held biotechnology development company, and also serves on the board of directors of the following private companies: Arcturus Therapeutics, Inc., Adheron Therapeutics, Panmira Pharmaceuticals, LLC, FLAP, LLC, and Ruga Corporation, as well as an industry group, the San Diego Venture Group. Mr. Baltera holds an M.B.A. from the Anderson School at the University of California, Los Angeles and earned a B.S. in Microbiology and an M.S. in Genetics from The Pennsylvania State University. Mr. Baltera attended the Director Education and Certification program at the University of California, Los Angeles.

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Mr. Baltera's previous executive leadership and product development experience at Amira and Amgen, his past and current service on the boards of directors of other public and private companies, as well as his educational background qualify him to be a member of our Board of Directors.

No Family Relationships

There are no family relationships between any of our officers and directors.

Board Committees

	Compensation Committee	Audit Committee	Nominating and Corporate Governance Committee	Science and Technology Committee
Keith Murphy	—	—	—	X
Kirk Malloy, Ph.D.	X	—	X	X
Tamar Howson	Chair	X	X	—
Richard Heyman, Ph.D.	X	X	—	Chair
James Glover	X	Chair	X	—
Robert Baltera, Jr.	—	X	Chair	X

Compensation Committee . Our Compensation Committee currently consists of Ms. Tamar Howson (Chair), Mr. James Glover and Drs. Richard Heyman and Kirk Malloy. Mr. Robert Baltera, Jr. served on the Compensation Committee during Fiscal 2015 until Dr. Malloy was appointed in March 2015. The functions of the Compensation Committee include the approval of the compensation offered to our executive officers and recommending to the full Board the compensation to be offered to our non-employee directors. Additionally, in accordance with the listing standards of the NYSE MKT, the Compensation Committee evaluates the independence of each compensation consultant, outside counsel and advisor retained by or providing advice to the Compensation Committee. The Board has determined that Ms. Howson, Messrs. Glover and Baltera and Drs. Heyman and Malloy are each an "independent director" under the listing standards of the NYSE MKT and the applicable rules and regulations of the SEC. In addition, the members of the Compensation Committee qualify as "non-employee directors" for purposes of Rule 16b-3 under the Exchange Act and as "outside directors" for purposes of Section 162(m) of the Internal Revenue Code of 1986, as amended. The Compensation Committee is governed by a written charter approved by the Board of Directors, a copy of which is available on our website at www.organovo.com.

Audit Committee . Our Audit Committee currently consists of Mr. James Glover (Chair), Ms. Tamar Howson, Mr. Robert Baltera, Jr. and Dr. Richard Heyman. The functions of the Audit Committee include the retention of our independent registered public accounting firm, reviewing and approving the planned scope, proposed fee arrangements and results of the Company's annual audit, reviewing the adequacy of the Company's accounting and financial controls and reviewing the independence of the Company's independent registered public accounting firm. The Board has determined that each member of the Audit Committee is an "independent director" under the listing standards of the NYSE MKT and the applicable rules and regulations of the SEC. The Board has also determined that Ms. Howson, Messrs. Glover and Baltera and Dr. Heyman are each an "audit committee financial expert" within the applicable definition of the SEC. The Audit Committee is governed by a written charter approved by the Board of Directors, a copy of which is available on our website at www.organovo.com.

Nominating and Corporate Governance Committee . Our Nominating and Corporate Governance Committee currently consists of Mr. Robert Baltera, Jr. (chair), Ms. Tamar Howson, Mr. James Glover and Dr. Kirk Malloy. Dr. Richard Heyman served on the Nominating and Corporate Governance Committee during Fiscal 2015 until Dr. Malloy was appointed in March 2015. The functions of the Nominating and Corporate Governance Committee include the identification, recruitment and nomination of candidates for the Board and its

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committees, making recommendations to the Board concerning the structure, composition and functioning of the Board and its committees (including the reporting channels through which the Board receives information and the quality and timeliness of the information), developing and recommending to the Board corporate governance guidelines applicable to the Company and annually reviewing and recommending changes (as necessary or appropriate), overseeing the annual evaluation of the Board's effectiveness and performance, and periodically conducting an individual evaluation of each director. The Board has determined that each current and former member of the Nominating and Corporate Governance Committee is an "independent director" under the listing standards of the NYSE MKT and the applicable rules and regulations of the SEC. The Nominating and Corporate Governance Committee is governed by a written charter approved by the Board of Directors, a copy of which is available on our website at www.organovo.com.

Science and Technology Committee. Our Science and Technology Committee currently consists of Dr. Richard Heyman (chair), Messrs. Robert Baltera, Jr. and Keith Murphy and Dr. Kirk Malloy. Ms. Tamar Howson served on the Science and Technology Committee during Fiscal 2015 until Dr. Malloy was appointed in March 2015. Our Science and Technology Committee helps oversee the Company's research and development initiatives. The Science and Technology Committee is governed by a written charter approved by the Board of Directors, a copy of which is available on our website at www.organovo.com.

CORPORATE GOVERNANCE MATTERS

Overview

We are committed to maintaining the highest standards of business conduct and corporate governance, which we believe are fundamental to the overall success of our business, serving our stockholders well and maintaining our integrity in the marketplace. Our Corporate Governance Guidelines and Code of Business Conduct, together with our Certificate of Incorporation, Bylaws and the charters of our Board Committees, form the basis for our corporate governance framework. As discussed below, our Board of Directors has established four standing committees to assist it in fulfilling its responsibilities to the Company and its stockholders: the Audit Committee, the Compensation Committee, the Nominating and Corporate Governance Committee and the Science and Technology Committee. The references to our website address below do not constitute incorporation by reference of the information contained at or available on our website.

Corporate Governance Guidelines

Our Corporate Governance Guidelines are designed to facilitate the effective corporate governance of our Company. Our Corporate Governance Guidelines cover topics including, but not limited to, director qualification criteria, director responsibilities, director compensation, director orientation and continuing education, communications from stockholders to the Board, succession planning and the annual evaluations of the Board and its committees. Our Corporate Governance Guidelines are reviewed regularly by the Nominating and Corporate Governance Committee and revised when appropriate. The full text of our Corporate Governance Guidelines is available on our website at www.organovo.com. A printed copy may also be obtained by any stockholder upon request to our Corporate Secretary.

Code of Business Conduct

We have adopted a Code of Business Conduct that applies to all of our officers, directors, employees and consultants. We have posted a copy of our Code of Business Conduct, and intend to post any amendments to this Code, or any waivers of its requirements, on our website at www.organovo.com, as permitted under the SEC's rules and regulations.

Board Independence

Our shares of common stock are listed for trading on the NYSE MKT. As a result, our Board utilizes the definition of "independence" as that term is defined by the listing standards of the NYSE MKT and the rules and regulations of the SEC, including the rules relating to the independence of the members of our Audit Committee and Compensation Committee. Our Board considers that a director is independent when the director is not an officer or employee of the Company or its subsidiaries, does not have any relationship which would, or could reasonably appear to, materially interfere with the independent judgment of such director, and the director otherwise meets the independence requirements under the listing standards of the NYSE MKT and the rules and regulations of the SEC. Our Board has reviewed the materiality of any relationship that each of our directors has with the Company, either directly or indirectly. Based on this review, our Board has affirmatively determined that Tamar Howson, James Glover, Robert Baltera, Jr., Richard Heyman, Ph.D., and Kirk Malloy, Ph.D. each qualify as "independent" directors within the meaning of the listing standards of the NYSE MKT and the rules and regulations of the SEC.

Board Leadership Structure

Our Bylaws provide our Board with flexibility to combine or separate the positions of Chairman of the Board and Chief Executive Officer in accordance with its determination that utilizing one or the other structure would be in the best interests of our Company and its stockholders. At the current time, our Chairman of the Board, Keith Murphy, also serves as our Chief Executive Officer and President. Our Board has determined that

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this structure is the most effective leadership structure for the Company at this time. The Board believes that Mr. Murphy is the director best situated to identify strategic opportunities and to focus the activities of the Board due to his full-time commitment to the business and his company-specific experience. The Board also believes that the combined role of Chairman and Chief Executive Officer promotes effective execution of strategic imperatives and facilitates information flow between management and the Board. Our Board has determined that maintaining the independence of the Company's directors and managing the composition and function of the Board's committees help maintain the Board's strong, independent oversight of management.

Our Board has also appointed a Lead Director, Mr. Robert Baltera, Jr., as a matter of good corporate governance and believes that the appointment of the Lead Director provides a balance for effective and independent oversight of management. Pursuant to our Bylaws and Corporate Governance Guidelines, the Lead Director is selected annually by the independent non-employee directors. The Lead Director presides at meetings of the non-employee directors, presides at all meetings of the Board at which the Chairman is not present and performs such other functions as the Board may direct, including advising on the selection of Committee chairs and advising management on the agenda for Board meetings. In addition, the Lead Director serves as liaison between the Chairman and the non-employee directors and has the authority to call meetings of the non-employee directors. The non-employee directors meet regularly in executive session without the presence of management or any non-independent directors.

In addition, our Audit, Compensation and Nominating and Corporate Governance Committees, which oversee critical matters such as the integrity of our financial statements, the compensation of executive management, the selection and evaluation of directors, the development and implementation of corporate governance policies, and the oversight of the Company's compliance with laws and regulations, each consist entirely of independent directors. Our Board will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

Board and Committee Attendance

During the fiscal year ended March 31, 2015, all directors attended at least 75% or more of the aggregate of the meetings of the Board and of each of the Board committees on which they served. The Board met five times and acted by written consent four times during the fiscal year ended March 31, 2015; the Audit Committee met five times and did not act by written consent during the fiscal year ended March 31, 2015; the Compensation Committee met four times and acted by written consent one time during the fiscal year ended March 31, 2015; and the Nominating and Corporate Governance Committee met five times and did not act by written consent during the fiscal year ended March 31, 2015.

Director Attendance at the Annual Meeting

We believe the Annual Meeting provides a good opportunity for our directors to hear any feedback that our stockholders may desire to share with the Company and the Board. As a result, we encourage our directors to attend our Annual Meetings. We reimburse our directors for the reasonable expenses they may incur in attending the Annual Meeting.

Executive Sessions

Executive sessions of our independent directors are held at each regularly scheduled meeting of our Board and at other times they deem necessary. The Board's policy is to hold executive sessions without the presence of management, including our President and Chief Executive Officer. Our Board committees also generally meet in executive session at the end of each committee meeting.

Board Oversight of Risk

Our Board is actively involved in the oversight of risks that could affect our Company. The Board as a whole has responsibility for risk oversight of the Company's risk management policies and procedures, with

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specific reviews of certain areas being conducted by the relevant Board committee. The Board satisfies this responsibility through reports by each Committee Chair to the Board regarding the Committee's considerations and actions, as well as through regular reports directly from the member or members of management responsible for oversight of particular risks within the Company. Specifically, the Board committees address the following risk areas:

- The Compensation Committee is responsible for overseeing the management of risks related to the Company's executive compensation plans and arrangements.
- The Audit Committee discusses with management the Company's major financial risk exposures, regulatory and compliance matters and the steps management has taken to monitor and control such exposures.
- The Nominating Committee is responsible for overseeing the Company's compliance with good corporate governance practices, including the requirements established by the SEC and NYSE MKT.
- The Science and Technology Committee considers risks related to our research and development initiatives.

The Board encourages management to promote a corporate culture that incorporates risk management into the Company's day-to-day business operations.

Compensation Committee Interlocks and Insider Participation

No member of our Compensation Committee has at any time been our employee. Except as set forth herein, none of our executive officers serves, or has served during the last fiscal year, as a member of the board of directors or compensation committee of any other entity that has one or more executive officers serving as a member of our Board or our Compensation Committee.

Consideration of Director Nominees

General . In evaluating nominees for membership on our Board, our Nominating and Corporate Governance Committee applies the Board membership criteria set forth in our Corporate Governance Guidelines. Under these criteria, the Committee takes into account many factors, including an individual's business experience and skills (including skills in core areas such as operations, management, technology, accounting and finance, strategic planning and international markets), as well as independence, judgment, knowledge of our business and industry, professional reputation, leadership, integrity and ability to represent the best interests of the Company's stockholders. In addition, the Nominating and Corporate Governance Committee will also consider the ability of the nominee to commit sufficient time and attention to the activities of the Board, as well as the absence of any potential conflicts with the Company's interests. The Nominating and Corporate Governance Committee does not assign specific weights to particular criteria and no particular criterion is necessarily applicable to all prospective nominees. The Board does not have a formal policy with respect to diversity of nominees. Rather, our Nominating and Corporate Governance Committee considers Board membership criteria as a whole and seeks to achieve diversity of occupational and personal backgrounds on the Board. Our Board will be responsible for selecting candidates for election as directors based on the recommendation of the Nominating and Corporate Governance Committee.

Our Nominating and Corporate Governance Committee regularly assesses the appropriate size of our Board, and whether any vacancies on our Board are expected due to retirement or otherwise. In the event that vacancies are anticipated, or otherwise arise, the Committee will consider various potential nominees who may come to the attention of the Committee through current Board members, professional search firms, stockholders or other persons. Each potential nominee brought to the attention of the Committee, regardless of who recommended such potential nominee, is considered on the basis of the criteria set forth in our Corporate Governance Guidelines.

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Stockholder Nominees . The Nominating and Corporate Governance Committee will review a reasonable number of candidates for director recommended by a single stockholder who has held over 0.1% of the Company's common stock for over one year and who satisfies the notice, information and consent provisions set forth in the Company's Bylaws. The Board will use the same evaluation criteria and process for director nominees recommended by stockholders as it uses for other director nominees. There has been no change to the procedures by which stockholders may recommend nominees to our Board. For information concerning stockholder proposals, see "Stockholder Proposals for the 2016 Annual Meeting" below in this Proxy Statement.

Communications with the Board of Directors

The Board desires that the views of stockholders will be heard by the Board, its Committees or individual directors, as applicable, and that appropriate responses will be provided to stockholders on a timely basis. Stockholders wishing to formally communicate with the Board, the independent directors as a group or any individual director may send communications directly to the Company at 6275 Nancy Ridge Dr., Suite 110, San Diego, California 92121, Attention: Corporate Secretary. All clearly marked written communications, other than unsolicited advertising or promotional materials, are logged and copied, and forwarded to the director(s) to whom the communication was addressed. Please note that the foregoing communication procedure does not apply to (i) stockholder proposals pursuant to Exchange Act Rule 14a-8 and communications made in connection with such proposals or (ii) service of process or any other notice in a legal proceeding.

EXECUTIVE OFFICERS

The following persons are our executive officers and hold the positions set forth opposite their names as of July 10, 2015.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Keith Murphy	43	Chairman of the Board, Chief Executive Officer and President
Barry Michaels	65	Chief Financial Officer
Sharon Presnell, Ph.D.	46	Chief Technology Officer and Executive Vice President of Research and Development
Eric David, MD, JD	43	Chief Strategy Officer and Executive Vice President of Pre-Clinical Development
Michael Renard	56	Executive Vice President of Commercial Operations
Jennifer Kinsbruner Bush, JD	40	General Counsel, Corporate Secretary and Compliance Officer

See the section entitled “Board of Directors Information” above, for a description of the business experience and educational background of Mr. Murphy.

Barry D. Michaels, Chief Financial Officer , joined us in August 2011. Mr. Michaels has been an independent consultant to medical device and technology companies since 1977, and has more than 30 years of combined industry experience. From January 2008 until he joined us in August 2011, Mr. Michaels focused on his consulting practice. Mr. Michaels was the Chief Financial Officer of Cardima, Inc., a publicly-traded medical device company, from July 2003 through June 2005, and thereafter a consultant to Cardima through January 2008. Prior to joining Cardima, Mr. Michaels served as Chief Financial Officer of Lipid Sciences, a biotechnology company, from May 2001 through January 2003. Prior to joining Lipid Sciences, Mr. Michaels served as the Chief Financial Officer of IntraTherapeutics, Inc., an endovascular company, from March 2000 until its acquisition by Sulzer Medica in May 2001. Mr. Michaels received an MBA in finance from San Diego State University and is an alumnus of the University of California, Los Angeles Anderson School of Management.

Sharon Collins Presnell, Ph.D., Chief Technology Officer and Executive Vice President of Research and Development , joined us in May 2011. Dr. Presnell has more than 16 years of experience in the leadership of product-focused R&D. As an Assistant Professor at the University of North Carolina, Dr. Presnell’s research in liver and prostate biology and carcinogenesis produced cell- and tissue-based technologies that were industry-funded or out licensed for industrial applications. She joined Becton Dickinson & Co. (BD) in 2001, and played a key role in the early discovery and development of cell-based tools and reagent for BD’s life science portfolio. At BD, she grew and led a large multi-disciplinary team to build and validate screening platforms and products for cell growth, differentiation, and characterization and secured revenue-generating commercial partnerships with pharma partners. Dr. Presnell joined Tengion, Inc. in 2007, and as the Senior Vice President of Regenerative Medicine Research, was responsible for leading the discovery and early development of Tengion’s Neo-Kidney Augment™, a clinical-stage cell-based therapy for patients with chronic kidney disease. As the Chief Technology Officer at Organovo, Dr. Presnell has led the growth and development of the R&D organization, including evolution of the Company’s technology portfolio, and has played an instrumental role in securing funds in support of corporate growth initiatives. Dr. Presnell holds a Ph.D. in Pathology from the Medical College of Virginia. Dr. Presnell is a member of the American Society of Investigative Pathology, the American Society of Nephrology, and the International Society of Cell Transplantation, serves on the editorial board of the journal ‘3D Printing and Additive Manufacturing’ , and remains active as an NIH reviewer as an industry representative in the biomedical engineering space.

Eric Michael David, MD, JD, Chief Strategy Officer and Executive Vice President of Pre-Clinical Development , joined us in May 2012 as Chief Strategy Officer and was also named Executive Vice President of Pre-Clinical Development in June 2015. From October 2005 to May 2012, Dr. David served in a number of

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positions at McKinsey & Company, most recently as Associate Principal, where he served private equity, pharmaceutical, biotech, diagnostic, and medical device clients to support pipeline and R&D strategy, as well as market entry strategy. Dr. David played a critical role in the commercial translation of 3D bioprinting as a founder and early director of Organovo, Inc. Prior to his time at McKinsey, Dr. David served as a freelance consultant to the Department of Health and Human Services in the use of genomic technologies for early detection of pathogens for public health preparedness. He completed his residency in Internal Medicine at New York Presbyterian Hospital, where he served as Assistant Chief Resident and received the Dick Bowman Award for scientific endeavor and dedication to patient care. He was also Assistant Professor at The Rogosin Institute and adjunct faculty at The Rockefeller University. He received his MD from Columbia University College of Physicians and Surgeons, his JD from Columbia University School of Law, and a BA in physics and fine arts from Amherst College. He is board certified in Internal Medicine and admitted to the Bar in New York State.

Michael Renard, Executive Vice President of Commercial Operations, joined us in April 2012. Mr. Renard has more than 32 years of experience in commercial operations, business development and sales and marketing for the life science industry. From 1997 until May 2012, he served at Beckman Coulter holding various positions in program management, business operations and business development. He most recently was the vice president of marketing for North America commercial operations where he was responsible for achieving \$2 billion in revenue across 11 major product lines. Before Beckman Coulter, he was Vice President and General Manager in a start-up development stage incubator division of Sanofi, Inc. and Director of Corporate Accounts at Kallestad Diagnostics. He has an MBA from Rockhurst University and a BA in biology and chemistry from St. Olaf College.

Jennifer Kinsbruner Bush, JD, General Counsel, Corporate Secretary and Compliance Officer, joined us in September 2014. Ms. Bush has more than 15 years of intellectual property, corporate legal, regulatory, compliance, and transactional experience. Prior to joining Organovo, from October 2010 to August 2014, Ms. Bush held positions of increasing responsibility at Broadcom Corp., where she was most recently Associate General Counsel. Before joining Broadcom, from February 2010 to October 2010, Ms. Bush served as Associate General Counsel of DivX, Inc. prior to its acquisition by Sonic Solutions in October 2010. Ms. Bush practiced for 10 years at nationally ranked law firms, serving as an associate and then as a principal with Fish & Richardson, P.C. from 2002 to 2010 and as an associate with Irell & Manella LLP from 2001 to 2002, where she represented clients focused on a variety of technologies, including in the areas of medical devices, life sciences, software, and consumer products. Prior to entering into private practice, Ms. Bush served as a law clerk to the Honorable Stanley Marcus, 11th Circuit Court of Appeals, from 2000 to 2001. Ms. Bush received a J.D. from Yale Law School and an A.B. in history and Latin American Studies from Princeton University.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following tables set forth certain information regarding the beneficial ownership of our common stock as of June 22, 2015 (the record date) by (i) each person who, to our knowledge, beneficially owns more than 5% of our common stock; (ii) each of our directors, director nominees and named executive officers; and (iii) all of our executive officers, directors and director nominees as a group. Unless otherwise indicated in the table or the footnotes to the following table, each person named in the table has sole voting and investment power and such person's address is c/o Organovo Holdings, Inc., 6275 Nancy Ridge Dr., Suite 110, San Diego, California 92121.

We determined the number of shares of common stock beneficially owned by each person under rules promulgated by the SEC, based on information obtained from Company records and filings with the SEC. The information is not necessarily indicative of beneficial ownership for any other purpose. Under these rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power and also any shares which the individual or entity had the right to acquire within sixty days of June 22, 2015. These shares, however, are not deemed outstanding for the purpose of computing the percentage ownership of any other individual.

Applicable percentages are based on 81,592,413 shares of common stock outstanding as of June 22, 2015.

Beneficial Ownership(1)

Name and address of Beneficial Owner	Number of Common Shares	Percent of Common Shares
5% Stockholders		
Keith Murphy	6,456,717(6)	7.9%
Directors		
Robert Baltera, Jr.	224,006(2)	*%
James Glover	79,500(3)	*%
Tamar Howson	60,833(4)	*%
Richard Heyman, Ph.D.	62,000(5)	*%
Kirk Malloy	9,417(6)	*%
Named Executive Officers		
Keith Murphy	6,456,717(7)	7.9%
Barry Michaels	895,428(8)	1.1%
Sharon Presnell, Ph.D.	954,069(9)	1.2%
Eric David, MD, JD	1,283,806(10)	1.6%
Jennifer Kinsbruner Bush, JD	— (11)	*%
All executive officers and directors as a group (11 persons)	10,583,901(12)	13.0%

* Less than one percent.

- (1) Beneficial ownership of shares and percentage ownership are determined in accordance with the rules of the SEC. Unless otherwise indicated and subject to community property laws where applicable, the individuals named in the table above have sole voting and investment power with respect to all shares of our common stock shown as beneficially owned by them.
- (2) Includes options to purchase 79,500 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 31,500 additional options shares of common stock subject to future vesting pursuant to the terms of stock option agreements.
- (3) Includes options to purchase 79,500 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 31,500 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.
- (4) Includes options to purchase 60,833 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 46,667 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.

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- (5) Includes options to purchase 62,000 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 54,000 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.
- (6) Includes options to purchase 9,417 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 47,083 additional option shares of common stock subject to future vesting pursuant to the terms of the stock option agreements.
- (7) 255,255 of these shares are held by Equity Trust Co., Custodian FBO Keith Murphy IRA. Includes warrants to purchase 30,000 shares of common stock at an exercise price of \$1.00 per share. Includes options to purchase 502,389 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 889,375 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.
- (8) Includes options to purchase 422,282 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 491,719 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.
- (9) Includes options to purchase 885,005 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 297,188 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.
- (10) Includes options to purchase 602,500 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 367,500 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.
- (11) Does not include 275,000 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.
- (12) Includes warrants to purchase 30,000 shares of common stock at an exercise price of \$1.00 per share. Includes options to purchase 3,211,551 option shares currently exercisable or exercisable within 60 days of June 22, 2015. Does not include 2,908,406 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.

Changes in Control

We are not aware of any or a party to arrangements, including any pledge by any person of our securities, the operation of which may at a subsequent date result in a change of control.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended (the “Act”), requires our executive officers and directors and persons who beneficially own more than 10% of our common stock to file initial reports of beneficial ownership and reports of changes in beneficial ownership with the SEC. These persons are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. To the Company’s knowledge, no person who, during fiscal year 2015, was a director or officer of the Company, or beneficial owner of more than 10% of the Company’s common stock (which is the only class of securities of the Company registered under Section 12 of the Act), failed to file on a timely basis reports required by Section 16 of the Act, except for (i) one late Form 4 filing on behalf of each of Robert Baltera, Jr., Richard Heyman Ph.D., James Glover and Tamar Howson, each of which was filed on August 26, 2014 with respect to one transaction each, and each of which was due on August 22, 2014 and (ii) one late Form 5 filing on behalf of each of Keith Murphy and Sharon Presnell, Ph.D. with respect to 37,000 and 5,000 shares of common stock, respectively, each gifted to charitable organizations in 2014, which Form 5s were due on May 15, 2015 and filed on July 9, 2015. The foregoing is based solely upon a review by the Company of Forms 3 and 4 relating to the most recent fiscal year as furnished to the Company under Rule 16a-3(d) under the Act, and Forms 5 and amendments thereto furnished to the Company with respect to its most recent fiscal year, and any representation received by the Company from any reporting person that no Form 5 is required.

COMPENSATION DISCUSSION AND ANALYSIS

The following Compensation Discussion and Analysis is designed to provide stockholders with an understanding of our compensation philosophy and objectives as well as an overview of the analysis that our Compensation Committee performed in setting the compensation for our executive officers for Fiscal 2015 (i.e., the period from April 1, 2014 to March 31, 2015). This compensation discussion and analysis summarizes the Compensation Committee's determination of how and why, in addition to what, compensation actions were taken for each person serving as our chief executive officer, our chief financial officer and our three other most highly compensated executive officers during Fiscal 2015 (collectively, our "named executive officers"), who were as follows:

- Keith Murphy, our Chairman, Chief Executive Officer and President;
- Barry Michaels, our Chief Financial Officer;
- Sharon Presnell, Ph.D., our Chief Technology Officer and Executive Vice President of Research & Development;
- Eric David, MD, JD, our Chief Strategy Officer and Executive Vice President of Pre-Clinical Development; and
- Jennifer Kinsbruner Bush, JD, our General Counsel, Corporate Secretary and Compliance Officer.

Overview of Executive Compensation Program

Our Compensation Committee reviews and approves all compensation decisions relating to our executive officers, including our named executive officers, and oversees and administers our executive compensation program. Our compensation program is designed to attract, retain, and incentivize talented executives, to motivate them to achieve our key financial, operational, and strategic goals, and to reward them for superior performance. Our compensation program is also intended to align our executive officers' interests with those of our stockholders by rewarding their achievement of the specific corporate and individual goals approved by our Compensation Committee. Our compensation approach is tied to our early commercial stage, with the corporate performance goals focused on advancing our technology platform and achieving our product development and commercialization objectives and, thereby, increasing long-term stockholder value.

In an effort to ensure our compensation practices are comparable to those of similar public biotechnology companies, the Compensation Committee engaged Frederic W. Cook & Co., Inc. ("F.W. Cook"), an independent, national compensation consulting firm, in February 2014 in connection with our Compensation Committee's consideration of the compensation of our named executive officers for Fiscal 2015. F.W. Cook prepared a report based on an updated peer group approved by our Compensation Committee, which group was updated from the peer group developed in April 2012 when the Compensation Committee had engaged Compensia, Inc. ("Compensia"), an independent, national compensation consulting firm, to assess our executive officer and director compensation programs.

F.W. Cook's report concluded that our existing executive compensation program, which includes both performance and incentive based compensation, continues to be appropriate and properly structured to incentivize and compensate our executive officers. Based on this report and its assessment, our Compensation Committee determined that our existing executive compensation program, which consists of a base salary, performance-based cash incentives and long-term equity-based incentives, provides competitive pay, rewards our executives for achieving our financial, operational and strategic objectives and aligns the interests of our executive officers with those of our stockholders.

Our Compensation Committee also considered the strong support our stockholders demonstrated for our executive compensation program by casting approximately 85% of their votes in favor of our "say-on-pay" proposal related to our Fiscal 2014 executive compensation.

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For Fiscal 2015, the objectives of our compensation program included:

- a program structure designed to attract and retain the most highly qualified executive officers;
- appropriate guiding principles, including a comparative peer group and targeted market positioning for different compensation elements;
- harmonization of salary, performance-based cash incentives, long-term equity incentives, and other compensation benefits for executive officers hired under significantly different circumstances;
- alignment of executive compensation, individually and as a team, to the long-term interests of our stockholders;
- program flexibility to permit the accommodation of appropriate individual circumstances;
- clear, aligned and easily measured performance goals; and
- consideration of the voting results from the prior year's advisory vote on the compensation of our named executive officers.

Our Compensation Committee intends to evaluate our executive compensation program, and each of the compensation elements of our executive compensation program, on an annual basis. As we continue to focus on the advancement of our technology platform and meeting our product development and commercialization milestones, we expect that the specific direction, emphasis, and compensation elements of our executive compensation program will continue to evolve.

Compensation Process

Our Compensation Committee is responsible for setting the compensation levels for our executive officers each year. To assist the Compensation Committee, our Chief Executive Officer prepares a report recommending the base salaries, performance-based cash incentive targets, and long-term equity incentives for each executive officer (other than for himself). Our Chief Executive Officer also proposes the corporate and individual performance goals for our performance-based cash incentive plan. The Compensation Committee in its sole discretion may accept or adjust the compensation and the corporate and performance goals recommended by our Chief Executive Officer. In addition to this report, our Compensation Committee considers relevant market compensation data from our peer group and the advice of its independent compensation consultant. No executive officer is allowed to be present at the time his or her compensation is being determined by the Compensation Committee.

Benchmarking

As part of its services in 2014, F. W. Cook developed and recommended an updated peer group of fifteen (15) biotechnology companies to be used by the Compensation Committee for benchmarking our executive compensation program, which group was revised from the peer group selected by the Compensation Committee for Fiscal 2014. The Compensation Committee determined that it was appropriate to update the Company's peer group to reflect the Company's listing on the NYSE MKT, its market performance and its progress in advancing its technology platform and achieving its product development and commercialization objectives. Each member of the peer group was selected based on an evaluation of the nature of its operations, including its revenues, net income, market capitalization and number of employees. The following companies comprised our peer group for Fiscal 2015:

AcelRx Pharmaceuticals, Inc.
Cytori Therapeutics, Inc.
Insmid Incorporated
Neostem, Inc.
Peregrine Pharmaceuticals, Inc.

Anacor Pharmaceuticals Inc.
CytRx Corporation
InVivo Therapeutics Corp.
Neuralstem, Inc.
Regulus Therapeutics Inc.

Arrowhead Research
Inovio Pharmaceuticals, Inc.
Keryx Biopharmaceuticals, Inc.
Novavax, Inc.
Sangamo BioSciences, Inc.

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Determination of Executive Compensation

In setting the compensation for our executive officers for Fiscal 2015, our Compensation Committee considered market levels of compensation based on our peer group and the market information provided by F.W. Cook. For Fiscal 2015, our Compensation Committee (with the advice of F.W. Cook) determined to continue to target the total compensation offered to our named executive officers at the 50th percentile of the market as determined by evaluating our peer group and the market information provided by F.W. Cook.

In addition to market benchmarking, the Compensation Committee reviews the compensation recommendations of our Chief Executive Officer (other than with respect to determining his own compensation), considers the Company's overall performance during the prior fiscal year, each executive officer's responsibilities and contribution to the achievement of the prior year's corporate goals, and each executive officer's individual performance during the prior fiscal year. With respect to new hires, our Compensation Committee considers an executive officer's background and historical compensation in lieu of prior year performance. Additionally, in establishing Fiscal 2015 compensation, the Compensation Committee considered the results of the most recent stockholder advisory vote on our executive compensation (the say-on-pay proposal) at our 2014 Annual Meeting of Stockholders, at which 85% of the votes cast on the say-on-pay proposal were voted in favor of the proposal. The Compensation Committee believes these results affirm stockholder support for our executive compensation program and objectives. The Compensation Committee will continue to consider the results of future say-on-pay proposals when making executive compensation decisions.

Commitment to Good Compensation Governance Practices.

In designing our executive compensation program, our Compensation Committee intends to create alignment between our stockholders and executive officers and to implement good compensation governance by:

- ***Annual Advisory Vote on the Compensation of our Named Executive Officers*** – We provide our stockholders with the ability to vote annually on the compensation of our named executive officers.
- ***Independent Compensation Consultant*** – The Compensation Committee engaged Compensia during 2012 and F.W. Cook during 2014, respectively, to provide compensation consulting services. Neither Compensia nor F.W. Cook provided any other services to the Company during the periods they respectively served as a consultant to the Compensation Committee.
- ***Stock Ownership Guidelines*** – We have established stock ownership guidelines to further align our executive officers' interests with those of our stockholders. The guidelines require our named executive officers to acquire and hold a meaningful ownership interest in our Company.
- ***Compensation Risk Assessment*** – The Compensation Committee oversees and evaluates an annual risk assessment of the Company's compensation program.
- ***Prohibitions on Hedging, Pledging and Margin Activities*** – Our insider trading policy prohibits hedging transactions by Company employees. Under the policy, all short-term, speculative or hedging transactions in Organovo securities are prohibited by all employees. In addition, the policy specifically prohibits the use of Organovo securities for pledging and margin activities.

The Compensation Committee believes that the program and policies described above clearly demonstrate the Company's commitment to, and consistent execution of, an effective performance-oriented executive compensation program.

Components of Executive Compensation

For Fiscal 2015, the Compensation Committee considered updated information for the Company's peer group along with F.W. Cook's 2014 report and assessment. Based on this information, our Compensation Committee determined that our executive compensation program should consist of a base salary, performance-

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based cash incentives and long-term equity-based incentives. The Compensation Committee endeavors to combine these compensation elements to develop a compensation package that provides competitive pay, rewards our executive officers for achieving our financial, operational and strategic objectives and aligns the interests of our executive officers with those of our stockholders.

Base Salary: The Compensation Committee has provided, and will continue to provide, our executive officers with a base salary to compensate them for services provided during the fiscal year, with the philosophy to target compensation at the 50th percentile of market based on our peer group benchmarking. In setting base salaries, our Compensation Committee considers the Company's overall performance during the prior fiscal year, each executive officer's responsibilities and contribution to the achievement of the prior year's corporate goals, and each executive officer's individual performance during the prior fiscal year. The evaluations and recommendations proposed by our Chief Executive Officer are also considered (other than with respect to determining his own compensation). With respect to new hires, the Compensation Committee considers an executive's background and historical compensation in lieu of prior year performance. Our Compensation Committee evaluates and sets the base salaries for our executives following annual performance evaluations, as well as upon a promotion or other change in responsibility. Our Compensation Committee expects to continue these policies going forward.

Following the assessment of our executive compensation program and the market data provided by F.W. Cook for our peer group, the Compensation Committee set base salaries for Fiscal 2015 to be in line with the philosophy to target compensation at the 50th percentile of market of our peer group, except with respect to the base salary for our Chief Executive Officer and President. The Compensation Committee agreed to increase the base salary for our Chief Executive Officer and President to the 50th percentile of market over a two-year period. As a result, the base salary offered to our Chief Executive Officer and President for Fiscal 2015 is below the 50th percentile of market based on the base salaries offered by our peer group to their Chief Executive Officers.

The base salaries of our executive officers for Fiscal 2015 are set forth in the following table:

<u>Name and Title</u>	<u>Fiscal 2015 Base Salary</u>
Keith Murphy, <i>Chief Executive Officer and President</i>	\$465,000
Barry Michaels, <i>Chief Financial Officer</i>	\$335,000
Sharon Presnell, Ph.D., <i>Chief Technology Officer and Executive Vice President of Research & Development</i>	\$330,000
Eric David, MD, JD, <i>Chief Strategy Officer and Executive Vice President of Pre-Clinical Development</i>	\$310,000
Jennifer Kinsbruner Bush, JD, <i>General Counsel, Corporate Secretary and Compliance Officer</i>	\$255,000

Performance-Based Cash Incentive Awards. Our executive compensation program includes an annual performance-based cash incentive plan, which provides our executive officers an annual cash incentive opportunity as a percentage of their base salaries based upon their achievement of corporate and individual performance goals evaluated and approved by our Compensation Committee. For Fiscal 2015, the Compensation Committee determined that the annual target bonus opportunity expressed as a percentage of base salary for Mr. Murphy should be 50% of his base salary, the annual target bonus opportunity for our other executive officers (except for Ms. Bush) should be 35% of their respective base salaries and the annual target bonus opportunity for Ms. Bush should be 30% of her base salary. Each executive officer is eligible to receive up to 150% of the target bonus amount as a stretch bonus. If the minimum base performance level is met for a performance criteria, the Compensation Committee has the discretion to assign zero percentage to that performance criteria or a bonus percentage on an interpolated basis between zero and 100%. For performance between the target and stretch levels for each performance goal, the bonus percentage for that performance goal is determined on an interpolated basis. In addition, the Compensation Committee determined that 100% of our

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Chief Executive Officer's annual bonus opportunity would be based on the achievement of the corporate performance goals and 66 ²/₃ % of each other executive officer's annual bonus opportunity amount would be based on the corporate performance goals and 33 ¹/₃ % would be based on the executive officer's individual performance goals.

For Fiscal 2015, the corporate performance goals approved by the Compensation Committee included: (i) business development goals related to securing one or more contracts with pharma or cosmetic companies (25%), (ii) securing financing to support the Company's long-term business plan (25%), (iii) successfully launching the Company's first commercial product, the exVive 3D Liver Tissue, and booking revenue during Fiscal 2015 (25%) and (iv) research and development deliverables related to the Company's next tissues in development (25%). For Fiscal 2015, the Compensation Committee evaluated the Company's performance relative to each of the corporate performance goals established for executive compensation. Based on this evaluation, the Compensation Committee determined that the Company achieved an aggregate of 105% of the corporate performance goals established by the Compensation Committee. Our Compensation Committee expected that the performance criteria for the corporate performance goals at the target level could be achieved with effective execution of the Company's business plan and that performance criteria at the stretch level would be difficult to achieve.

The Compensation Committee then considered the respective performance of each of the executive officers in achieving their individual performance goals. Based on this evaluation, the Compensation Committee determined that Mr. Michaels, Ms. Presnell, Mr. David and Ms. Bush achieved 106%, 86%, 104% and 105%, respectively, of their individual performance goals. Our Compensation Committee determined that the individual performance goals established for our executive officers could be achieved if they effectively performed the responsibilities assigned to them and achievement of the individual performance goals at the stretch level would be difficult to achieve.

Based on the achievement of the corporate goals and respective individual performance, our Compensation Committee awarded our executive officers cash bonuses ranging between 31.5% and 52.5% of their respective base salaries. Specifically, the bonus payments for Fiscal 2015 were as follows:

<u>Name and Title</u>	<u>Percentage of Base Salary</u>	<u>Fiscal 2015 Bonus Award</u>
Keith Murphy, <i>Chief Executive Officer and President</i>	52.5%	\$246,696
Barry Michaels, <i>Chief Financial Officer</i>	36.9%	\$125,200
Sharon Presnell, Ph.D., <i>Chief Technology Officer and Executive Vice President of Research & Development</i>	34.5%	\$115,587
Eric David, MD, JD, <i>Chief Strategy Officer and Executive Vice President of Pre-Clinical Development</i>	36.6%	\$115,427
Jennifer Kinsbruner Bush, JD, <i>General Counsel, Corporate Secretary and Compliance Officer</i>	31.5%	\$ 44,488

Equity-Based Incentive Awards. In addition to base salaries and annual cash incentives, the Compensation Committee provides long-term, equity-based incentive awards to our executive officers, generally consisting of stock options to purchase shares of our common stock. The Compensation Committee believes that stock option awards help further the Company's compensation objectives by encouraging executives to remain with the Company through at least the vesting period for these awards. Stock option awards also provide the executive officer with an incentive to continue to focus on the Company's long-term financial performance and increasing stockholder value. The Compensation Committee has and plans to continue to grant long-term equity incentive awards to the Company's executive officers in connection with their initial hire, following promotions and on an annual basis.

In February 2014, the Compensation Committee granted each of the named executive officers stock options for Fiscal 2015. In determining the size and terms of the stock option grants, the Compensation Committee

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considered market data from our peer group, the individual performance of the named executive officers and equity award levels recommended by Mr. Murphy for the named executive officers (other than himself). Based on this analysis, the Compensation Committee approved the grant of a stock option for 550,000 shares to Mr. Murphy, a stock option for 300,000 shares to Mr. Michaels, a stock option for 155,000 shares to Dr. Presnell and a stock option for 140,000 shares to Dr. David. Each of the stock options has an exercise price of \$9.86 per share, the closing price of our common stock on the date of grant. The stock options vest over a four (4) year period, with 25% of the option shares vesting on February 19, 2015, and the remaining option shares vesting quarterly over the following three years. The Compensation Committee awarded Ms. Bush a stock option for 150,000 shares of common stock on November 6, 2014 at an exercise price of \$6.84 per share as her initial hire grant. Ms. Bush's stock option vests over a four (4) year period, with 25% of the option shares vesting on September 2, 2015, and the remaining option shares vesting quarterly over the following three years.

Other Benefits.

In order to attract and retain qualified individuals and pay market levels of compensation, we have historically provided, and will continue to provide, our executives with the following benefits:

- **Health Insurance** – We provide each of our executives and their spouses and children the same health, dental, and vision insurance coverage we make available to our other eligible employees.
- **Life and Disability Insurance** – We provide each of our executives with the same life and disability insurance as we make available to our other eligible employees.
- **Pension Benefits** – We do not provide pension arrangements or post-retirement health coverage for our executives or employees. We implemented a 401(k) Plan effective January 1, 2014, which does not provide for matching contributions by the Company.
- **Nonqualified Deferred Compensation** – We do not provide any nonqualified defined contribution or other deferred compensation plans to any of our employees.
- **Perquisites** – We limit the perquisites that we make available to our executive officers. In certain cases, we have reimbursed our executives officers for their relocation expenses on their initial hire.

Stock and Option Grant Practices.

All long-term equity incentives awarded to our executives, employees, consultants and directors have been granted at no less than the fair market value on the date of the award or grant. The amount of realizable value related to such grants and awards is determined by our stock price on the date the option is exercised following vesting and, therefore, will be determined by our financial performance in the time after the award is granted. Whether the stock price moves up or down shortly after the award date is largely irrelevant for purposes of the long-term equity incentives.

The exercise price of any option grant and the grant date value of any restricted stock unit ("RSU") award are determined by reference to the fair market value of the underlying shares, which our 2012 Equity Incentive Plan (the "Plan") defines as the closing price of our common stock on the date of grant. However, because options have been, and will continue to be, granted at fair market value, the holder of an option can realize value only to the extent that the stock price of our common stock increases during the term of the option. RSUs generally have cash value equal to the current stock price.

Under the Plan, stock option grants generally vest over four years, with 25 percent of the option shares vesting on the one-year anniversary of the vesting commencement date and the remaining option shares vesting on a quarterly basis over the next 12 quarters (for a total vesting period of 48 months from the date of grant). All vesting is subject to continued service to the Company. All options have a 10-year term. Additional information regarding accelerated vesting following a change in control is discussed below under "Potential Payments upon Termination or Change in Control."

Employment Agreements and Severance and Change of Control Benefits

Employment Agreement. We entered into an employment agreement with Mr. Murphy in February 2012. The terms of Mr. Murphy's employment agreement provide for him to receive a base salary per year as determined by the Board or a committee of the Board. The term of the employment agreement expired after one year from the effective date, and automatically renews thereafter, unless we provide Mr. Murphy advanced notice of nonrenewal. Mr. Murphy is also eligible to participate in our annual bonus plan and other short-term incentive compensation plans established for our senior executives by our Board or the Compensation Committee. Mr. Murphy is also entitled to participate in our equity-based incentive plans. Mr. Murphy is not entitled to any severance payments under his employment agreement.

Severance Benefits. Pursuant to the terms of their respective offer letters, Mr. Michaels, Dr. Presnell and Ms. Bush are entitled to certain severance benefits in the event of termination for any reason other than cause. Provided that Mr. Michaels, Dr. Presnell or Ms. Bush execute the Company's form Release and Non-Disparagement Agreement in connection with any such termination, each is entitled to three months of his or her respective salary and benefits plus an additional two weeks of salary and benefits for each fully completed year of employment, up to a maximum of six months of total salary and benefits paid. See "Potential Payments upon Termination or Change of Control" below.

Change of Control Benefits. The outstanding equity awards held by our executive officers provide such executive officers with accelerated vesting upon the executive officer's involuntary termination without cause or their voluntary termination for good reason within 12 months following a change in control of the Company. In addition, in the event Ms. Bush's employment is terminated by the Company without cause or by Ms. Bush for good reason within 12 months following a change in control, Ms. Bush is entitled to twelve months of her base salary and benefits and up to \$15,000 for out placement services.

Death or Disability Benefits. The outstanding equity awards held by our executive officers provide such executive officers with accelerated vesting if the executive officer terminates services with the Company as a result of death or disability. In order for an equity award to be eligible for accelerated vesting, the executive officer's death or disability must occur more than 90 days after the date the equity award was granted. With respect to performance based equity awards, an executive officer will vest at target levels upon the executive officer's death or disability.

REPORT OF THE COMPENSATION COMMITTEE

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and included in this Proxy Statement. Based on these reviews and discussions, the Compensation Committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Proxy Statement.

The Compensation Committee of the Board of Directors:

Tamar Howson, Chair

James Glover

Richard Heyman, Ph.D.

Kirk Malloy, Ph.D.

EXECUTIVE COMPENSATION

The following tables contain compensation information for our named executive officers during the fiscal year ended March 31, 2015 (“Fiscal 2015”), the fiscal year ended March 31, 2014 (“Fiscal 2014”), the three-month transition period ended March 31, 2013 (the “2013 Transition Period”) and the fiscal year ended December 31, 2012 (“Fiscal 2012”). The information included in these tables should be read in conjunction with the Compensation Discussion and Analysis disclosed above.

As a result of the Company’s change in its fiscal year from December 31st to March 31st in early 2013, the timing of the Compensation Committee’s approval of the long-term equity awards granted to our named executive officers transitioned from occurring after the start of the applicable fiscal year to occurring before the start of the applicable fiscal year. Specifically, the Stock Awards and Option Awards reported in the Summary Compensation Table reflect the following: (i) the Stock Awards reported for Fiscal 2012 (i.e., the period from January 1, 2012 to December 31, 2012) represent the long-term equity awards issued to our named executive officers for Fiscal 2012; (ii) the Option Awards reported for the 2013 Transition Period (i.e., the period from January 1, 2013 to March 31, 2013) represent the long-term equity awards issued to our named executive officers for Fiscal 2014 (i.e., the period from April 1, 2013 to March 31, 2014); and (iii) the Option Awards reported for Fiscal 2014 represent the long-term equity awards issued to our named executive officers for Fiscal 2015 (i.e., the period from April 1, 2014 to March 31, 2015). The Option Awards reported for Fiscal 2015 represent stock options issued to our chief executive officer and president and to our chief financial officer pursuant to the terms of contractual agreements we entered into with them during Fiscal 2012, and do not represent their long-term equity awards for Fiscal 2016 (i.e., the period from April 1, 2015 to March 31, 2016). The Compensation Committee granted long-term equity awards to our executive officers for Fiscal 2016 in June 2015, and as a result these equity awards will be reported in the Summary Compensation Table included in next year’s Proxy Statement.

Summary Compensation Table

The following table summarizes the total compensation paid to or earned by each named executive officer for Fiscal 2015, Fiscal 2014, the 2013 Transition Period and Fiscal 2012.

Name and Principal Position	Year or Period	Salary \$(1)	Bonus(2) (\$)	Option Awards(3) (\$)	Stock Awards (\$)	Non- Equity Incentive Plan Compensation(4)	All Other Compensation(5) (\$)	Total (\$)
Keith Murphy Chairman, Chief Executive Officer, and President	2015	469,897	—	117,836	—	246,696	—	834,429
	2014	362,877	—	4,190,665	—	128,052	—	4,681,594
	2013 Transition Period	82,658	—	741,131	—	32,013	—	855,802
	2012	298,885	—	—	680,000	90,667	—	1,069,552
Barry D. Michaels Chief Financial Officer	2015	339,600	—	544,357	—	125,200	—	1,009,157
	2014	289,052	—	2,363,944	—	102,926	—	2,755,922
	2013 Transition Period	67,594	—	305,349	—	25,731	—	398,674
	2012	241,889	—	234,432	1,275,000	73,967	—	1,825,288
Sharon Presnell, Ph.D. Chief Technology Officer and Executive Vice President of Research and Development	2015	334,715	—	—	—	115,587	—	450,302
	2014	289,052	—	1,019,962	—	90,686	—	1,399,700
	2013 Transition Period	67,594	—	305,349	—	22,671	—	395,614
	2012	253,298	—	303,996	—	77,537	—	634,831
Eric David, MD, JD Chief Strategy Officer and Executive Vice President of Pre-Clinical Development	2015	315,092	—	—	—	115,427	—	430,519
	2014	289,805	—	921,256	—	81,609	—	1,292,670
	2013 Transition Period	69,528	—	305,349	—	20,402	—	395,279
	2012	160,968	22,500	757,758	—	47,486	28,245	1,016,957
Jennifer Kinsbruner Bush, JD General Counsel, Corporate Secretary and Compliance Officer	2015	141,231	20,000	689,687	—	44,488	—	895,406

(1) The 2013 Transition Period is for the three months ended March 31, 2013, with the 2013 Transition Period salary pro-rated based on the respective executive’s annual salary during Fiscal 2012.

(2) Includes a \$22,500 sign-on bonus awarded to Dr. David when he joined the Company in 2012 and a \$20,000 sign-on bonus to Ms. Bush following her joining the Company in 2014.

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- (3) These amounts represent the grant date fair value of equity-based awards granted by the Company during the periods presented, determined in accordance with FASB ASC Topic 718. All awards are amortized over the vesting life of the award. For the assumptions used in our valuations, see “Note 7 – Stockholders’ Equity” of our notes to consolidated financial statements in the annual report on Form 10-K for the year ended March 31, 2015, as filed with the SEC.
- (4) The amounts for Fiscal 2012 were awarded under the Company’s annual cash incentive plan based on the achievement of Company goals approved by the Compensation Committee.
- (5) Excludes payments made for the reimbursement of medical insurance premiums. Amounts included in the “All Other Compensation” column for Dr. David represent relocation expenses incurred upon hire.

Grants of Plan-Based Awards

The following table provides information on the grants of awards made to each named executive officer during Fiscal 2015.

Name	Grant Date	No. of Units Granted Under Non-Equity Incentive Plan Awards	Payouts Under Non-Equity Incentive Plan Awards (\$)	All Other Stock Awards: Number of Shares of Stock (#)	All Other Option Awards: Number of Shares of Stock Options (#)(2)	Exercise or Base Price of Option Awards (\$/sh)	Grant Date Fair Value of Stock and Option Awards (\$)
Keith Murphy							
Annual Bonus(1)	—	—	246,696	—	—	—	—
Stock Options(3)	2/13/2015	—	—	28,008	—	6.34	117,836
Barry Michaels							
Annual Bonus(1)	—	—	125,200	—	—	—	—
Stock Options(3)	8/23/2014	—	—	—	102,760	7.94	544,357
Sharon Presnell, Ph.D.							
Annual Bonus(1)	—	—	115,587	—	—	—	—
Eric David, MD, JD							
Annual Bonus(1)	—	—	115,427	—	—	—	—
Jennifer Kinsbruner Bush, JD							
Annual Bonus(1)	—	—	44,488	—	—	—	—
Stock Options(4)	11/6/2014	—	—	—	150,000	6.84	689,687

- (1) The amounts shown reflect payments under our annual performance-based cash incentive program for Fiscal 2015, under which the named executive officers were eligible to receive a cash bonus based on a percentage of base salary upon the achievement of certain pre-established corporate and individual performance measures approved by the Compensation Committee. The named executive officers received payouts pursuant to this program for Fiscal 2015. Please see “Executive Compensation – Compensation Discussion and Analysis” for more information regarding our annual performance-based cash incentive plan.
- (2) The stock options were granted under our stock incentive plan. The stock options generally vest 25% on the first anniversary of the date of grant, with the remaining rights vesting quarterly over the remaining three years.
- (3) These stock options were automatically issued pursuant to the terms of an Equity Incentive Award Agreement entered into with the executive officer in August 2012. The Equity Incentive Award Agreement provides that the executive officer can pay applicable federal and state withholding taxes upon the vesting of RSUs that the Company issued to the executive officer in August 2012 by returning an equivalent number of shares to the Company for cancellation on the applicable vesting date. If the executive officer returns shares to the Company for cancellation, the executive officer is automatically issued a stock option for that number of shares of common stock returned to the Company as payment for applicable federal and state withholding taxes. The stock option is fully vested and has an exercise price equal to the closing sale price of the Company’s common stock on the applicable vesting date.

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(4) The stock options granted on November 6, 2014 reflect the initial grant to Ms. Bush for her service upon hire.

Outstanding Equity Awards

The following table shows certain information regarding outstanding equity awards as of March 31, 2015 for the named executive officers.

Name	Option Awards				Stock Awards	
	No. of Securities Underlying Unexercised Options (#) Exercisable	No. of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of shares or Units of stock that have not vested (#)	Market Value of shares or Units of stock that have not vested \$(1)
Keith Murphy	24,690	—	4.58	2/13/2023	50,000(2)	177,000
	107,500(9)	107,500	3.93	3/12/2023		
	54,654(11)	—	5.60	8/28/2023		
	27,105(12)	—	9.92	2/13/2024		
	27,307(13)	—	9.86	2/19/2024		
	137,500(14)	412,500	9.86	2/19/2024		
	28,008	—	6.34	2/13/2025		
Barry Michaels	7,812(3)	19,531	2.25	4/18/2022	187,500(4)	688,945
	32,068(5)	—	2.10	8/23/2022		
	44,683(9)	50,000	3.93	3/12/2023		
	102,147(10)	—	5.50	8/23/2023		
	75,000(14)	225,000	9.86	2/19/2024		
	102,760(15)	—	7.94	8/25/2024		
Sharon Presnell, Ph.D.	398,128(6)	224,064	0.08	5/1/2021	—	—
	120,313(3)	54,687	2.25	4/18/2022		
	50,000(9)	50,000	3.93	3/12/2023		
	38,750(14)	116,250	9.86	2/19/2024		
Eric David, MD, JD	412,500(7)	187,500	1.65	7/23/2022	—	—
	50,000(9)	50,000	3.93	3/12/2023		
	35,000(14)	105,000	9.86	2/19/2024		
Jennifer Kinsbruner Bush, JD	—	150,000(16)	6.84	11/6/2024	—	—

- (1) The market value of the RSU's is determined by multiplying the number of shares underlying the RSU's by the closing price for our common stock of \$3.54 on March 31, 2015.
- (2) Represents 50,000 time-based RSUs vesting on February 13, 2016.
- (3) 25% of the stock options vested and became exercisable on April 18, 2013, with the remaining option shares vesting in equal quarterly amounts over the following three years. On March 31, 2015, Mr. Michaels exercised options to purchase 35,157 shares, with 7,812 option shares vested and exercisable and 19,531 option shares remaining unvested. On March 31, 2015, Dr. Presnell had 120,313 option shares vested and exercisable and 54,687 option shares remaining unvested.
- (4) Represents 750,000 time-based RSUs of which 187,500 shares vested on August 23, 2012, with the remaining shares vesting 25% annually over the following three years.
- (5) Upon the return of vested shares of common stock by Mr. Michaels to cover tax liability related to the vesting of 187,500 RSUs, stock options were granted on August 23, 2012 with immediate vesting at an exercise price equal to the closing price of our common stock of \$5.50 on that date. On March 31, 2015, Mr. Michaels had exercised his stock option for 47,619 shares, with the remaining 32,068 option shares vested and exercisable.

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- (6) 25% of the stock options vested and became exercisable on May 2, 2012, with the remaining option shares vesting 25% annually over the next three years. On March 31, 2015, Dr. Presnell had exercised her stock option to purchase 274,064 shares, with 398,128 options shares vested and exercisable and the remaining option shares unvested.
- (7) 25% of the stock options vested and became exercisable on May 14, 2013, with the remaining option shares vesting in equal quarterly amounts over the remaining three years.
- (8) 25% of the stock options vested and became exercisable on April 30, 2013, with the remaining option shares vesting in equal quarterly amounts over the remaining three years.
- (9) 25% of the stock options vested and became exercisable on January 1, 2014, with the remaining option shares vesting in equal quarterly amounts over the remaining three years. On March 31, 2015, Mr. Michaels had exercised his stock option to purchase 5,319 shares, with 44,683 option shares vested and exercisable and 50,000 shares unvested.
- (10) Upon the return of vested shares of common stock by Mr. Michaels to cover tax liability related to the vesting of 187,500 RSUs, stock options were granted on August 23, 2013 with immediate vesting at an exercise price equal to the closing price of our common stock of \$5.50 on that date.
- (11) Upon return of vested shares of common stock by Mr. Murphy to cover tax liability related to the vesting of 100,000 performance based restricted stock units, stock options were granted on August 28, 2013 with immediate vesting at an exercise price equal to the closing price of our common stock of \$5.60 on that date.
- (12) Upon the return of vested shares of common stock by Mr. Murphy to cover tax liability related to the vesting of 50,000 restricted stock units, stock options were granted on February 13, 2014 with immediate vesting at an exercise price equal to the closing price of our common stock of \$9.92 on that date.
- (13) Upon the return of vested shares of common stock by Mr. Murphy to cover tax liability related to the vesting of 50,000 performance based restricted stock units, stock options were granted on February 19, 2014 with immediate vesting at an exercise price equal to the closing price of our common stock of \$9.86 on that date.
- (14) 25% of the stock options vest and became exercisable on February 19, 2015, with the remaining option shares vesting in equal quarterly amounts over the following three years.
- (15) Upon the return of vested shares of common stock by Mr. Michaels to cover tax liability related to the vesting of 187,500 restricted stock units, stock options were granted on August 23, 2014 with immediate vesting at an exercise price equal to the closing price of our common stock of \$7.94 on that date.
- (16) 25% of the stock options vest and become exercisable on November 6, 2015, with the remaining option shares vesting in equal quarterly amounts over the following three years.

Option Exercises and Stock Vested

The following table sets forth the number of shares acquired and the value realized upon exercise of stock options and vesting of stock awards during Fiscal 2015 by each of our named executive officers.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)(1)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)(2)
Keith Murphy	—	—	50,000	317,000
Barry Michaels	18,474	95,815	187,500	1,488,750
Sharon Presnell, Ph.D.	50,000	217,000	—	—
Eric David, MD, JD	—	—	—	—
Jennifer Kinsbruner Bush, JD	—	—	—	—

- (1) The value realized on vesting is determined by multiplying the number of shares exercised by the market value of the underlying shares on the exercise date less the exercise price of the shares.
- (2) The value realized on vesting is determined by multiplying the number of shares that vested during Fiscal 2015, times the closing price of our common stock on NYSE MKT on the applicable vesting date.

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Potential Payments upon Termination or Change of Control

Post-termination benefits for our named executive officers are established pursuant to the terms of their individual employment agreements or offer letters. The following table sets forth the amounts payable to each of our named executive officers based on an assumed termination as of March 31, 2015 based upon certain designated events. Please see the employment offer letters described above in “Employment Agreements and Severance and Change of Control Benefits” for additional information.

Name	Base Salary (\$)	Health and Other Insurance Benefits (\$)	Stock Options (Unvested and Accelerated) (\$)(1)	Restricted Stock Units (Unvested and Accelerated) (\$)(2)	Fiscal Year 2015 Total \$(3)
Keith Murphy					
Termination Without Cause	—	—	—	—	—
Termination after Change of Control	—	—	—	177,000	177,000
Barry Michaels					
Termination Without Cause	122,404	9,316	—	—	131,717
Termination after Change of Control	122,404	9,316	25,195	663,750	820,662
Sharon Presnell, Ph.D.					
Termination Without Cause	120,577	6,695	—	—	127,272
Termination after Change of Control	120,577	6,695	845,808	—	973,080
Eric David, MD, JD					
Termination Without Cause	—	—	—	—	—
Termination after Change of Control	—	—	354,375	—	354,375
Jennifer Kinsbruner Bush, JD					
Termination Without Cause	63,750	1,802	—	—	65,552
Termination after Change of Control	255,000	21,246	—	—	276,246

- (1) Requires a change of control *plus* a qualifying termination of employment before vesting of options would be accelerated. The value of the accelerated options is determined by multiplying (a) the difference between the closing price of our common stock on the NYSE MKT on the assumed termination date and the applicable exercise price of each option, by (b) the number of unvested and accelerated options.
- (2) Requires a change of control *plus* a qualifying termination of employment before vesting of RSUs would be accelerated. The values of the accelerated RSUs were determined by multiplying the closing price of our common stock on the assumed termination date by the number of unvested and accelerated RSUs.
- (3) Payment of Base Salary and Health and Other Benefits requires a change of control *plus* a qualifying termination of employment.

DIRECTOR COMPENSATION

Our directors play a critical role in guiding our strategic direction and overseeing the management of our Company. Ongoing developments in corporate governance and financial reporting have resulted in an increased demand for such highly qualified and productive public company directors. The many responsibilities and risks and the substantial time commitment of being a director of a public company require that we provide adequate incentives for our directors' continued performance by paying compensation commensurate with our directors' workload. Our non-employee directors are compensated based upon their respective levels of Board participation and responsibilities, including service on Board Committees. Mr. Murphy, our Chairman, President and Chief Executive Officer, receives no separate compensation for his service as a director.

Our director compensation is overseen by the Compensation Committee, which makes recommendations to our Board of Directors on the appropriate structure for our non-employee director compensation program and the appropriate amount of compensation. Our Board of Directors is responsible for final approval of our non-employee director compensation program and the compensation paid to our non-employee directors. In 2014, the Compensation Committee retained F.W. Cook as its independent compensation consultant to assess the Company's non-employee director compensation program. With the assistance of F.W. Cook, the Compensation Committee and Board of Directors determined that its philosophy to target total compensation for our non-employee directors at the 50th percentile of the market, based on the same peer group used in benchmarking the compensation of our executive officers remained in the best interests of the Company and its stockholders.

In August 2014, the Board, based on the recommendation of the Compensation Committee and the assessment completed by F.W. Cook, adopted our current non-employee director compensation policy. Pursuant to this policy, our non-employee directors receive (i) an annual cash retainer of \$24,000, (ii) an annual cash retainer for service as a Committee Chair, as follows: Audit Committee Chair – \$15,000; Compensation Committee Chair – \$10,000; and Nominating & Governance Committee Chair – \$6,500; and (iii) a fee of \$2,000 per Board meeting attended (whether in person or by telephone) and \$1,000 per Committee meeting attended (whether in person or by telephone). In addition, in the event we appoint a non-employee director to serve either as a Non-Executive Chairman or a Lead Director, such director will receive an annual retainer of \$30,000 if serving as the Non-Executive Chairman or \$18,000 if serving as the Lead Director.

Upon their initial election to the Board, each non-employee director will receive a stock option to acquire that number of shares of the Company's common stock equal to 0.07% of the outstanding shares of common stock of the Company on the date of grant, with the number of shares subject to the option rounded to the nearest 500 shares (the "Initial Option Grant"). The Initial Option Grant vests quarterly over three years, subject to accelerated vesting in the event of a change of control. The Initial Option Grant will have an exercise price equal to the fair market value of the Company's common stock on the date of grant.

In addition, pursuant to this policy, each non-employee director continuing in office after the date of an annual meeting of stockholders will receive a stock option grant with an exercise price equal to the fair market value of a share of the Company's common stock on the day after the annual meeting of stockholders (the "Annual Option Grant"). The number of shares subject to the Annual Option Grant will be equal to 0.04% of the outstanding shares of common stock of the Company on the date of grant, with the number of shares subject to the option rounded to the nearest 500 shares. Each such Annual Option Grant will vest in full on the earlier of (i) one year from the date of grant or (ii) the next annual meeting of stockholders held by the Company, subject to acceleration in the event of the change of control.

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Director Compensation Table

The following table sets forth compensation earned and paid to each non-employee director for service as a director Fiscal 2015:

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)</u>	<u>Option Awards \$(1)</u>	<u>Total (\$)</u>
Robert Baltera, Jr.	58,793	160,191	218,984
James Glover	52,571	160,191	212,762
Tamar Howson	46,957	160,191	207,148
Richard Heyman, Ph.D.	49,375	229,412	209,566
Kirk Malloy, Ph.D.	12,733	229,412	242,145

- (1) These amounts represent the grant date fair value of equity-based awards granted by the Company during the periods presented, determined in accordance with FASB ASC Topic 718. All awards are amortized over the vesting life of the award. For the assumptions used in our valuations, see “Note 7 – Stockholders’ Equity” of our notes to consolidated financial statements in the annual report on Form 10-K for the year ended March 31, 2015, as filed with the SEC.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

From April 1, 2014 (the beginning of our 2015 fiscal year) through March 31, 2015, there have not been any transaction or series of similar transactions to which we were or are a party in which the amount involved exceeded or exceeds \$120,000 and in which any of our directors or executive officers, any holder of more than 5% of any class of our voting securities or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than the compensation arrangements described in “Executive Compensation.”

Related Party Transaction Policy and Procedures

Pursuant to our Related Party Transaction Policy and Procedures, our executive officers, directors, and principal stockholders, including their immediate family members and affiliates, are prohibited from entering into a related party transaction with us without the prior consent of our Audit Committee or our independent directors. Any request for us to enter into a transaction with an executive officer, director, principal stockholder, or any of such persons’ immediate family members or affiliates, in which the amount involved exceeds \$120,000 must first be presented to our Audit Committee for review, consideration and approval. In approving or rejecting the proposed agreement, our Audit Committee will consider the relevant facts and circumstances available and deemed relevant, including, but not limited, to the risks, costs and benefits to us, the terms of the transaction, the availability of other sources for comparable services or products, and, if applicable, the impact on a director’s independence. Our Audit Committee shall approve only those agreements that, in light of known circumstances, are in, or are not inconsistent with, our best interests, as our Audit Committee determines in the good faith exercise of its discretion.

PROPOSAL ONE

ELECTION OF DIRECTORS

At the Annual Meeting, our stockholders will vote on the election of two Class I directors to serve for three-year terms until our 2018 Annual Meeting of Stockholders and until their successors are elected and qualified. The Board has unanimously nominated Keith Murphy and Kirk Malloy, Ph.D. for election to the Board as Class I directors. Mr. Murphy and Dr. Malloy are each currently serving as Class I directors.

Vote Required and Board Recommendation

Under our Certificate of Incorporation and Bylaws, the Class I directors will be elected by a plurality of the votes cast in person or by proxy at the Annual Meeting assuming a quorum is present, which means that the director nominees receiving the highest number of “FOR” votes will be elected. If you hold your shares through a broker and you do not instruct the broker on how to vote on this proposal, your broker will not have authority to vote your shares. Abstentions and broker non-votes will each be counted as present for purposes of determining the presence of a quorum, but will not have any effect on the outcome of the proposal.

Both of the nominees have indicated their willingness to serve if elected, but if either should be unable or unwilling to stand for election, the shares represented by proxies may be voted for a substitute as the Company may designate, unless a contrary instruction is indicated in the proxy.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR AND SOLICITS PROXIES IN FAVOR OF KEITH MURPHY AND KIRK MALLOY, PH.D.

Unless otherwise instructed, it is the intention of the persons named as proxy holders in the proxy card to vote shares represented by properly executed proxy cards for the election of each of Keith Murphy and Kirk Malloy, Ph.D.

PROPOSAL TWO

RATIFICATION OF APPOINTMENT OF MAYER HOFFMAN MCCANN, P.C. AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

At the Annual Meeting, our stockholders will be asked to ratify the appointment of Mayer Hoffman McCann, P.C. ("Mayer Hoffman") as our independent registered public accounting firm for the fiscal year ending March 31, 2016. Representatives of Mayer Hoffman are expected to be present at the Annual Meeting, and will have the opportunity to make statements if they desire to do so and to respond to appropriate questions. Mayer Hoffman has served as our independent registered public accounting firm since February 8, 2012, the date we completed our reverse merger transaction and became a public reporting company.

In the event our stockholders fail to ratify the appointment of Mayer Hoffman, the Audit Committee will reconsider its selection. In addition, even if our stockholders ratify the selection, the Audit Committee in its discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if it believes that a change would be in the best interests of the Company and its stockholders.

Audit and Non-Audit Fees

Our Audit Committee is responsible for approving the engagement of Mayer Hoffman as our independent registered public accounting firm for the fiscal year ending March 31, 2016. Mayer Hoffman leases substantially all of its personnel, who work under the control of Mayer Hoffman McCann P.C. shareholders, from wholly-owned subsidiaries of CBIZ, Inc., including CBIZ MHM, LLC, in an alternative practice structure.

The Audit Committee has and intends to continue to meet with Mayer Hoffman on a quarterly or more frequent basis. At such times, the Audit Committee has and will continue to review the services performed by Mayer Hoffman, as well as the fees charged for such services.

The following table sets forth the fees for services provided and billed by Mayer Hoffman and its affiliate CBIZ MHM, LLC, relating to the fiscal years ended March 31, 2015 and 2014.

	Fiscal Year 2015	Fiscal Year 2014
Audit fees	\$ 223,000	\$ 227,000
Audit-related fees	—	—
Tax Fees	\$ 16,000	\$ 41,725
All other fees	—	—
Total	\$ 239,000	\$ 268,725

Audit Fees: For the fiscal years ended March 31, 2015 and 2014, the aggregate audit fees billed by our independent auditors were for professional services rendered for audits and quarterly reviews of our consolidated financial statements, and assistance with reviews of registration statements and documents filed with the SEC.

Audit-Related Fees: For the fiscal years ended March 31, 2015 and 2014, there were no audit-related fees billed by our independent auditors, other than the fees described above.

Tax Fees: For the fiscal years ended March 31, 2015 and 2014, the tax-related fees billed by an affiliate of our independent auditors pertained to services related to tax return preparation and tax planning services.

All Other Fees: For the fiscal years ended March 31, 2015 and 2014, there were no fees billed by our independent auditors for other services, other than the fees described above.

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Policy on Audit Committee Pre-Approval of Audit and Permitted Non-Audit Services of Independent Auditors

The Audit Committee has determined that all services provided by Mayer Hoffman to date are compatible with maintaining the independence of such audit firm. The charter of the Audit Committee requires advance approval of all auditing services and permitted non-audit services (including the fees and terms thereof) to be performed for the Company by our independent registered public accounting firm, subject to any exception permitted by law or regulation. The Audit Committee has delegated to the Chair of the Audit Committee authority to approve permitted services, provided that the Chair reports any decisions to the Audit Committee at its next scheduled meeting.

Vote Required and Board Recommendation

If a quorum is present, the affirmative vote of a majority of the votes cast at the 2015 Annual Meeting is required for ratification of our independent registered public accounting firm. Abstentions and broker non-votes will each be counted as present for purposes of determining the presence of a quorum. Abstentions will not be considered as votes cast for or against the proposal and will therefore have no effect on the outcome of the vote.

Submission of the appointment to stockholder approval is not required. However, the Audit Committee will reconsider the appointment if it is not approved by stockholders.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE RATIFICATION OF MAYER HOFFMAN AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING MARCH 31, 2016.

REPORT OF THE AUDIT COMMITTEE

The following is the report of our Audit Committee with respect to our audited financial statements included in our Annual Report on Form 10-K for the fiscal year ended March 31, 2015, filed with the SEC on June 9, 2015 (the “Form 10-K”). The information contained in this report shall not be deemed to be “soliciting material” or to be “filed” with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the Company specifically incorporates it by reference in such filing.

The Audit Committee currently consists of four directors, each of whom is an “independent director” as defined under the listing standards for the NYSE MKT and the rules and regulations of the SEC. The Audit Committee acts pursuant to a written charter that has been adopted by the Board of Directors. A copy of the charter is available on the Company’s website at www.organovo.com.

The Audit Committee oversees our financial reporting process on behalf of the Board of Directors. Management has the responsibility for the financial statements and the reporting process, including internal control systems. Our independent registered public accounting firm, Mayer Hoffman, is responsible for expressing an opinion as to the conformity of our audited financial statements with generally accepted accounting principles.

Review with Management

The Audit Committee reviewed and discussed the audited financial statements with management of the Company.

Review and Discussions with Independent Accountants

The Audit Committee met with Mayer Hoffman to review the financial statements included in the Form 10-K. The Audit Committee discussed with a representative of Mayer Hoffman the matters required to be discussed by the Statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol. 1, AU Section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T. In addition, the Audit Committee met with Mayer Hoffman, with and without management present, to discuss the overall scope of Mayer Hoffman’s audit, the results of its examinations and the overall quality of the Company’s financial reporting. The Audit Committee received the written disclosures and the letter from Mayer Hoffman required by Rule 3526 of the Public Company Accounting Oversight Board, *Communication with Audit Committee Concerning Independence*, and has discussed with Mayer Hoffman its independence, and satisfied itself as to the independence of Mayer Hoffman.

Conclusion

Based on the above review, discussions, and representations received, the Audit Committee recommended to the Board of Directors that the audited financial statements for the fiscal years ended March 31, 2015 and 2014, the three-month transition period ended March 31, 2013 and for the fiscal year ended December 31, 2012 be included in the Company’s Form 10-K and filed with the SEC.

The Audit Committee of the Board of Directors:

James Glover, Chair
Robert Baltera, Jr.
Tamar Howson
Richard Heyman, Ph.D.

PROPOSAL THREE

ADVISORY VOTE ON EXECUTIVE COMPENSATION

The Board of Directors is providing stockholders with the opportunity to cast an advisory vote on the compensation of our named executive officers. This proposal, commonly known as a “Say on Pay” proposal, gives you, as a stockholder, the opportunity to endorse or not endorse our executive compensation program and the compensation paid to our named executive officers as reported in this Proxy Statement.

The Say on Pay vote is advisory, and therefore not binding on the Compensation Committee or the Board. Although the vote is non-binding, the Compensation Committee and the Board will review the voting results, seek to determine the cause or causes of any significant negative voting, and take them into consideration when making future decisions regarding executive compensation.

The Compensation Committee and the Board have designed our executive compensation program to attract and retain and talented executives, to motivate them to achieve our key financial, operational, and strategic goals, and to reward them for superior performance. They also designed our compensation program to align our executive officers’ interests with those of our stockholders by rewarding their achievement of the specific corporate and individual goals approved by our Compensation Committee. The performance goals set by the Compensation Committee are focused on advancing our technology platform and achieving our product development and commercialization objectives and, thereby, increasing long-term stockholder value. Stockholders are encouraged to read the Compensation Discussion and Analysis and Executive Compensation sections of this Proxy Statement for a more detailed discussion of how our compensation program reflects the Company’s core objectives and aligns our executive officers’ interests with those of our stockholders.

Voting and Board of Directors’ Recommendation

The Board believes the Company’s executive compensation program uses appropriate structures and sound pay practices that are effective in achieving our core compensation objectives. Accordingly, the Board recommends that you vote in favor of the following resolution:

“ **RESOLVED** , that the stockholders of Organovo Holdings, Inc. approve, on an advisory basis, the compensation of the Company’s named executive officers as disclosed pursuant to the Securities and Exchange Commission’s compensation disclosure rules, including the Compensation Discussion and Analysis and Executive Compensation sections of this Proxy Statement.”

If a quorum is present, the proposal to approve, on an advisory basis, the compensation of the Company’s named executive officers requires the affirmative vote of a majority of the votes cast at the 2015 Annual Meeting. Abstentions and broker non-votes will each be counted as present for purposes of determining the presence of a quorum. Abstentions and broker non-votes will not be considered as votes cast for or against the proposal and will therefore have no effect on the outcome of the vote.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE APPROVAL, ON AN ADVISORY BASIS, OF THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS.

PROPOSAL FOUR

AMENDMENT AND RESTATEMENT OF THE 2012 EQUITY INCENTIVE PLAN

Our Board and stockholders adopted the Organovo Holdings, Inc. 2012 Equity Incentive Plan (the “Plan”) in January 2012. The Plan was later amended with the approval of our Board and our stockholders in October 2012 to revise the performance criteria and existing award limitations on performance awards and further amended with the approval of our Board and our stockholders in August 2013 to increase the number of shares of our common stock available for issuance under the Plan. On June 4, 2015, our Board approved an amendment and restatement of the Plan (the “Amended Plan”), subject to stockholder approval, to, among other changes described below, increase the number of shares of our common stock available for issuance under the Plan by 6,000,000 shares. Approval of the Amended Plan will allow us to continue providing the appropriate equity incentives that are critical to attracting and retaining the best personnel. We had 1,142,159 shares of common stock available for future awards under the Plan as of June 22, 2015.

Key Features Designed to Protect Stockholders’ Interests

The Plan’s design reflects our commitment to strong corporate governance and our desire to preserve stockholder value as demonstrated by the following Plan features:

- ***Independent Administrator*** . The Compensation Committee of our Board, which is comprised solely of independent, non-employee directors, is the Plan administrator.
- ***No Evergreen Feature*** . The Plan expires by its terms on a specified date. In addition, the maximum number of shares available for issuance under the Plan is fixed and cannot be increased without stockholder approval. This is why we are requesting stockholder approval for the Amended Plan.
- ***No Discount Awards; Maximum Term Specified*** . Stock options and stock appreciation rights must have an exercise price or base price no less than the closing price of our common stock on the date the award is granted and a term no longer than ten years’ duration.
- ***Per-Participant Limits on Awards*** . The Plan limits the size of awards that may be granted during any one year to any one participant.
- ***Award Design Flexibility*** . Different kinds of awards may be granted under the Plan, giving us the flexibility to design our equity incentives to complement the other elements of compensation and to support our attainment of strategic goals.
- ***Performance-Based Awards*** . The Plan permits the grant of performance-based stock awards that are payable only upon the attainment of specified performance criteria.
- ***No Liberal Definition of Change in Control*** . The Plan’s definition of a change-in-control transaction provides that any award benefits triggered by such a transaction are contingent upon the actual consummation of the transaction, not merely its approval by our Board or stockholders.
- ***Repricing and Reloading Prohibited*** . In addition, as proposed in the Amended Plan, stockholder approval will be required for any repricing, replacement, or buyout of underwater awards and no new awards will be granted automatically upon the exercise or settlement of any outstanding award.

The Proposed Amended Plan

We are asking our stockholders to approve the Amended Plan which:

- Removes the exchange program from the Plan, which previously allowed for the surrender of outstanding awards for awards of the same type (which may have had lower exercise prices or different terms), awards of a different type and/or cash.
- Increases the number of shares to be reserved and authorized for issuance under the Plan by 6,000,000 shares to 17,553,986 shares of Common Stock;

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- Provides that any (i) shares withheld by the Company or tendered to the Company to pay taxes and/or the exercise price of an award under the Amended Plan and (ii) unvested shares of restricted stock, restricted stock units, performance shares or performance units that are repurchased by the Company will not become available for future grant under the Amended Plan.
- Removes the ability of our Board to (i) reduce the exercise price of any outstanding awards granted under the Amended Plan or (ii) cancel or exchange an outstanding award for cash or any other award with an exercise price that is less than the exercise price of an original award (except in connection with certain corporate transactions) without stockholder approval.
- Provides that no award shall contain a reload feature that results in a new option granted automatically upon delivery of shares to the Company in payment of the exercise price or any tax withholding obligation.
- Provides that in the event the Company declares a dividend or dividend equivalent payment, participants who hold performance-based awards subject to performance goals will not be eligible to receive any dividend or dividend equivalent unless the applicable performance goals are met and the underlying award vests.
- Provides that all awards granted under the Amended Plan will be subject to any clawback or recoupment policy adopted by the Company, unless otherwise specified in the award agreement or determined by the Amended Plan administrator in its sole discretion.

The Company's Compensation Committee has authorized and issued equity awards for an aggregate of 1,760,382 shares of Common Stock under the Plan during Fiscal 2016 through the date of this Proxy Statement, including stock options for an aggregate of 1,105,000 shares of Common Stock issued to the Company's executive officers as a component of their compensation for Fiscal 2016. Under the utilization rate calculation methodology adopted by Institutional Shareholder Services ("ISS"), the number of shares available for future issuance following the approval of the Amended Plan when divided by the Company's three-year average number of shares issued under the Plan for fiscal years 2014, 2015 and 2016, provides an estimated duration of 3.6 years, which is less than ISS's recommended maximum of 5 years.

In addition, by approving the Amended Plan, our stockholders are reapproving the material terms necessary for us to continue granting qualified performance-based awards that are intended to be exempt from the \$1,000,000 limit on deductions for compensation paid to covered employees. These material terms are the employees eligible to receive performance-based awards, the performance criteria on which a performance goal is based, and the maximum number of shares issuable or the amount of cash payable under a performance-based award.

Currently the shares available for issuance and number of awards outstanding as a percentage of the Company's common stock outstanding as of June 22, 2015 is 12%. If the proposal is approved by our stockholders, the potential dilution to stockholders would increase by 7% to 19%.

The Company grants equity awards to its eligible executive officers, directors and employees in the ordinary course of business. The Company has no specific plans for future grants of awards other than those granted in the ordinary course of business. The Company performed an analysis based on its current hiring plans and determined that, if the proposed increase in the shares reserved under the Amended Plan is approved by stockholders at the 2015 Annual Meeting, the Company anticipates it will have enough shares available for future grant under the Plan to last through 2019. The Company did not retain a compensation consultant to analyze the number of shares to be added to the Amended Plan.

If this proposal is not approved by our stockholders, we currently anticipate that all of the shares available for grants under the Plan will be exhausted by approximately November 5, 2015. If the Amended Plan is approved by our stockholders at the 2015 Annual Meeting, it will be effective as of August 20, 2015, the date of stockholder approval.

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Our Compensation Committee has full discretion to determine the number of awards to be granted to participants under the Amended Plan, subject to an annual limitation on the total number of awards that may be granted to any one person. No awards have been granted contingent upon stockholder approval of the Amended Plan.

The following is a summary of the principal features of the Plan, as proposed to be amended by the Amended Plan, but it is qualified in its entirety by reference to the full text of the Amended Plan, which appears as Appendix A to this Proxy Statement.

Background and Purpose of the Plan

We adopted the Plan to attract and retain the best available personnel for positions of substantial responsibility, to provide incentives to individuals who perform services for us, and to promote the success of our business.

Shares Available Under the Plan

Currently, there are 11,553,986 shares of common stock reserved for issuance under the Plan. The Amended Plan would increase the number of shares available for issuance by 6,000,000 shares, for an aggregate of 17,553,986 shares of common stock. If an incentive award granted under the Plan expires, terminates, is unexercised or is forfeited, the shares subject to such award will become available for further awards under the Plan. As proposed to be amended by the Amended Plan, shares are surrendered to us in connection with an incentive award, and shares used to pay the tax or exercise price of an award will not become available for future grant or sale under the Plan. To the extent an award under the Plan is paid out in cash rather than shares, the cash payment will not result in reducing the number of shares available for issuance under the Plan. The maximum number of shares subject to awards that may be granted to any individual during any calendar year is 2,000,000 and the maximum aggregate amount of cash that may be paid in cash during any calendar year with respect to awards payable in cash is \$2,000,000.

The number and class of shares of our common stock subject to the Plan, the number and class of shares subject to any numerical limit in the Plan, and the number, price and class of shares subject to awards will be adjusted in the event of any change in our outstanding common stock by reason of any stock dividend, spin-off, split-up, stock split, reverse stock split, recapitalization, reclassification, merger, consolidation, liquidation, business combination or exchange of shares or similar transaction.

Administration

The Compensation Committee of the Board currently administers the Plan (the “Administrator”). Subject to the terms of the Plan, the Compensation Committee has complete authority and discretion to determine the terms of awards under the Plan.

Eligibility and Participation

Participation in the Plan is open to all of our employees and directors and any person (including an advisor) engaged by us to render services to the Company, as the Administrator may select from time to time. As of the date of this Proxy Statement, five (5) non-employee directors and approximately ninety-five (95) employees and other persons rendering services to the Company or any of its affiliates are eligible to participate in the Plan.

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Grants

The Plan authorizes the grant to Plan participants of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock, restricted stock units, performance units, performance shares, and other stock or cash awards intended to comply with Section 162(m) of the Internal Revenue Code (as amended, the “Code”), as described below:

Stock Options . Stock options entitle the participant, upon exercise, to purchase a specified number of shares of common stock at a specified price for a specified period of time. The Administrator may grant incentive and/or non-statutory stock options under the Plan. The exercise price for each stock option shall be determined by the Administrator but shall not be less than 100% of the fair market value of the common stock on the date of grant. The “fair market value” means, if the stock is listed on any established stock exchange or national market system (e.g., the NYSE MKT), the closing sales price of the stock, or, if the common stock is regularly quoted by a recognized securities dealer, but the selling prices are not reported, the mean between the high bid and low asked prices for the common stock on the day of determination, or in the absence of an established market for the stock, or if the stock is not regularly quoted or does not have sufficient trades or bid prices which would reflect the stock’s actual fair market value, the fair market value of the common stock will be determined in good faith by the Administrator upon the advice of a qualified valuation expert. As of June 22, 2015, the fair market value of a share of our common stock was \$4.44 per share.

Any stock options granted in the form of an incentive stock option will be intended to comply with the requirements of Section 422 of the Code. Only options granted to employees qualify for incentive stock option treatment.

Each stock option shall expire at such time as the Administrator shall determine at the time of grant. No stock option shall be exercisable later than the tenth anniversary of its grant. A stock option may be exercised in whole or in installments. A stock option may not be exercisable for a fraction of a share. Shares of common stock purchased upon the exercise of a stock option must be paid for in full at the time of exercise in cash or such other consideration determined by the Administrator.

Stock Appreciation Rights . A stock appreciation right (“SAR”) is the right to receive a payment equal to the excess of the fair market value of a specified number of shares of common stock on the date the SAR is exercised over the exercise price of the SAR. The exercise price for each SAR shall not be less than 100% of the fair market value of the common stock on the date of grant, and the term of an SAR shall be no more than ten years from the date of grant. At the discretion of the Administrator, the payment upon an SAR exercise may be in cash, in shares equivalent thereof, or in some combination thereof.

Upon exercise of a SAR, the participant shall be entitled to receive payment from the Company in an amount determined by multiplying the excess of the fair market value of a share of common stock on the date of exercise over the exercise price of the SAR by the number of shares with respect to which the SAR is exercised.

Restricted Stock and Restricted Stock Units . Restricted stock and restricted stock units may be awarded or sold to participants under such terms and conditions as shall be established by the Administrator. Restricted stock and restricted stock units shall be subject to such restrictions as the Administrator determines, including a prohibition against sale, assignment, transfer, pledge or hypothecation, and a requirement that the participant forfeit such shares or units in the event of termination of employment. A restricted stock unit provides a participant the right to receive payment at a future date after the lapse of restrictions or achievement of performance criteria or other conditions determined by the Administrator.

Performance Stock . The Administrator shall designate the participants to whom long-term performance stock/units are to be awarded and determine the number of shares, the length of the performance period and the other vesting terms and conditions of each such award. Each award of performance stock/units shall entitle the

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participant to a payment in the form of shares/units of common stock upon the attainment of performance criteria and other vesting terms and conditions specified by the Administrator. The Administrator may, in its discretion, make a cash payment equal to the fair market value of shares of common stock otherwise required to be issued to a participant pursuant to a performance stock award.

All awards made under the Plan may be subject to vesting and other contingencies as determined by the Administrator and will be evidenced by agreements approved by the Administrator which set forth the terms and conditions of each award.

If performance stock/units are intended to qualify as performance-based compensation under Section 162(m) of the Code, the award must specify a predetermined amount of cash or shares that may be earned by the covered employee to the extent that one or more of the following predetermined performance criteria are attained within a predetermined performance period: (i) earnings per share; (ii) operating cash flow; (iii) operating income; (iv) profit after-tax; (v) profit before-tax; (vi) return on assets; (vii) return on equity; (viii) return on sales; (ix) revenue; (x) total shareholder return; (xi) return on capital, including but not limited to return on invested capital against a weighted average cost of capital; (xii) return on net assets; (xiii) economic value added; (xiv) market share; (xv) customer service; (xvi) customer satisfaction; (xvii) safety; (xviii) total stockholder return; (xix) free cash flow; (xx) net operating income; (xxi) operating cash flow; (xxii) return on investment; (xxiii) employee satisfaction; (xxiv) employee retention; (xxv) balance of cash, cash equivalents and marketable securities; (xxvi) product development; (xxvii) research and development expenses; (xxviii) completion of an identified special project; (xxix) completion of a joint venture or other corporate transaction; (xxx) filing of patents; (xxxi) submission and/or publication of scientific works; (xxxii) execution or expansion of strategic partnerships or relationships; or (xxxiii) such other measures as determined by the Compensation Committee consistent with the terms of the Plan.

Performance criteria may be expressed on an absolute basis or relative to a standard specified by the Compensation Committee. Performance criteria have the same meanings as used in our financial statements, or, if such terms are not used in our financial statements, they shall have the meaning applied pursuant to generally accepted accounting principles, or as used generally in our industry. Performance criteria are calculated with respect to the Company and each subsidiary corporation consolidated therewith for financial reporting purposes or such division or other business unit as may be selected by the Compensation Committee. For purposes of the Plan, the performance criteria applicable to an award of performance stock/units is calculated in accordance with generally accepted accounting principles, but prior to the accrual or payment of any award of performance stock/units for the same performance period and excluding the effect (whether positive or negative) of any change in accounting standards or any extraordinary, unusual or nonrecurring item, as determined by the Compensation Committee, occurring after the establishment of the performance criteria applicable to the award of performance stock/units. Each such adjustment, if any, is made solely for the purpose of providing a consistent basis from period to period for the calculation of performance criteria in order to prevent the dilution or enlargement of a covered employee's rights with respect to an award of performance stock/units.

Stockholder approval of the performance criteria and the maximum award amount as part of the Amended Plan is required for the Company to fully deduct the amount or value of the performance awards, as permitted under Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"). Section 162(m) of the Code generally limits to \$1 million the deduction available to public companies for compensation paid to its chief executive officer and the other three highest compensated officers (other than the chief financial officer) as of the end of its fiscal year (for purposes of Section 162(m), these individuals are referred to as "covered employees"). This \$1 million deduction limit does not apply, however, to "performance-based compensation" as defined under Section 162(m) of the Code.

Performance awards granted under the Amended Plan are intended to be eligible to qualify as performance-based compensation that would be fully deductible under Section 162(m) of the Code. To so qualify, a performance award must be subject to performance criteria established by a committee or subcommittee comprised solely of two or more outside directors of the Company. In addition, the performance criteria must be disclosed to and approved by

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stockholders of the Company. If stockholder approval of the performance criteria is not obtained, performance awards granted under the Amended Plan will be subject to the \$1 million deduction limit, which may result in additional cost to the Company to the extent amounts of compensation paid to covered officers are not deductible. In order to permit awards to qualify as performance-based compensation under Section 162(m) of the Code, no employee may be granted awards under the Amended Plan in excess of 2,000,000 Shares or \$2,000,000 in each calendar year.

New Plan Benefits and Previously Awarded Options

Awards that may be granted to eligible persons under the Plan are subject to the discretion of the Compensation Committee, so we cannot currently determine the benefits or amounts that will be received or allocated to our current named executive officers, executive officers as a group, directors who are not executive officers as a group, and employees, including all current officers who are not executive officers, as a group. Consequently, no New Plan Benefits Table is included in this Proxy Statement.

We granted equity awards under the Plan during our fiscal year ended March 31, 2015 to our named executive officers, non-employee directors, and other eligible employees. Grants made during our last fiscal year to our named executive officers are reflected in the “Grants of Plan-Based Awards” table in the “Executive Compensation” section of this Proxy Statement. Likewise, grants made to our non-employee directors are reflected in the “Director Compensation Table” in the “Director Compensation” section of this Proxy Statement. The number of shares subject to awards granted under the Plan during our fiscal year ended March 31, 2015 to all employees (including all current officers who are not executive officers) and consultants as a group was 1,624,191 shares.

The following are the number of shares subject to stock options, restricted stock units or vendor warrants received by the following persons or groups since the inception of the Plan through June 22, 2015: (i) Keith Murphy: 1,791,764 shares; (ii) Barry D. Michaels: 1,752,094 shares; (iii) Sharon Presnell: 560,000 shares; (iv) Eric David: 970,000 shares; (v) Jennifer Kinsbruner Bush: 275,000 shares; (vi) Michael Renard: 985,000 shares; (vii) all current executive officers as a group (6 persons): 6,333,858 shares; (viii) all current directors, who are not executive officers, as a group (5 persons): 502,000 shares; and (ix) all other employees (including all current officers who are not executive officers) and consultants as a group (approximately 96 persons): 3,932,162 shares.

Duration, Amendment, and Termination

Unless sooner terminated by the Board, the Amended Plan will terminate ten years after its adoption by the Company’s stockholders at the 2015 Annual Meeting. The Board may amend, alter, suspend or terminate the Amended Plan at any time or from time to time without stockholder approval or ratification, unless necessary and desirable to comply with applicable law. However, before an amendment may be made that would adversely affect a participant who has already been granted an award; the participant’s consent must be obtained.

Federal Income Tax Consequences

The following is a general summary of the federal income tax treatment of stock options, which are authorized for grant under the Plan, based upon the provisions of the Code as of the date of this Proxy Statement. Non-U.S. residents should consult with their tax adviser regarding the specific tax consequences as a result of the grant of awards under the Plan in their country of origin. This summary is not intended to be exhaustive and the exact tax consequences to any award holder depend upon his or her particular circumstances and other facts. Plan participants should consult their tax advisor with respect to any state, local and non-U.S. tax considerations or relevant federal tax implications of options granted under the Plan.

Incentive Stock Options . An option holder recognizes no taxable income for regular income tax purposes as a result of the grant or exercise of an incentive stock option that qualifies under Section 422 of the Code. Option holders who neither dispose of their shares within two years of the date that the option was granted or within one

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year following the exercise of the option, normally recognize a capital gain or loss on the sale of the shares equal to the difference, if any, between the sale price and the purchase price of the shares. If an option holder satisfies these holding periods, on the sale of the shares, we are not entitled to any deduction for federal income tax purposes. Where an option holder disposes of shares within two years after the date of grant of those options or within one year after the date of exercise (a “disqualifying disposition”), the difference between the fair market value of the shares on the exercise date and the option exercise price (which is not to exceed the gain realized on the sale, if the disposition is a transaction with respect to which a loss, if sustained, would be recognized) is taxed as ordinary income at the time of disposition. Any gain in excess of that amount is a capital gain. If a loss is recognized, there is no ordinary income, and such loss is a capital loss. Any ordinary income recognized by the option holder on the disqualifying disposition of the shares generally results in a deduction by us for federal income tax purposes.

Non-statutory Stock Options . Options not designated or qualifying as incentive stock options are non-statutory stock options having no special tax status. An option holder generally recognizes no taxable income as a result of the grant of the option. On the exercise of a non-statutory stock option, the option holder normally recognizes ordinary income in the amount of the difference between the option exercise price and the fair market value of the shares on the exercise date. Where the option holder is an employee, such ordinary income generally is subject to withholding of income and employment taxes. On the sale of shares acquired by the exercise of a non-statutory stock option, any gain or loss (based on the difference between the sale price and the fair market value on the exercise date), is taxed as a capital gain or loss. No tax deduction is available to us with respect to the grant of a non-statutory stock option or the sale of the stock acquired pursuant to such grant. We should generally be entitled to a deduction equal to the amount of ordinary income recognized by the option holder as a result of the exercise of a non-statutory stock option.

Deductibility of Compensation . The Code allows publicly held corporations to deduct compensation that is in excess of \$1 million paid to the Company’s chief executive officer and or any of its three most highly compensated executive officers (other than the chief executive officer and the chief financial officer) if the compensation is payable solely based on the attainment of one or more performance criteria and where certain statutory requirements are satisfied. It is intended that compensation arising from awards granted under the Plan that are based on performance criteria, and stock options and stock appreciation rights, are to be deductible by us as qualified performance-based compensation not subject to the \$1 million limitation on deductibility under the Code. Despite this, we reserve the right to grant awards under the Plan that do not result in qualified performance-based compensation and, as such, may not entitle us to a tax deduction.

EQUITY COMPENSATION PLAN INFORMATION

The table below shows, as of March 31, 2015, information for all equity compensation plans previously approved by stockholders and for all compensation plans not previously approved by stockholders.

Plan Category	Number of securities to be issued upon exercise/ vesting of outstanding options, warrants, units and rights(1)	Weighted-average exercise price(1)	Number of securities available for future issuance
Equity compensation plans approved by security holders:	7,422,418	\$ 4.18	2,883,916
Equity compensation plans not approved by security holders	—	—	—

(1) Does not include outstanding restricted stock units.

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Vote Required and Board Recommendation

If a quorum is present, approval of the Amended Plan requires the affirmative vote of a majority of the votes cast at the 2015 Annual Meeting. Abstentions and broker non-votes will each be counted as present for purposes of determining the presence of a quorum. Abstentions and broker non-votes will not be considered as votes cast for or against the proposal and will therefore have no effect on the outcome of the vote.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE TO APPROVE THE AMENDMENT AND RESTATEMENT OF THE ORGANOVO HOLDINGS, INC. 2012 EQUITY INCENTIVE PLAN.

OTHER MATTERS

The Company is not aware of any matter to be acted upon at the Annual Meeting other than the matters described in this proxy statement. However, if any other matter properly comes before the Annual Meeting, the proxy holders will vote the proxies thereon in accordance with their best judgment on such matter.

PROXY SOLICITATION

The Company will bear the expenses of calling and holding the Annual Meeting and the soliciting of proxies therefor. This Proxy Statement and the accompanying materials are being made available to stockholders, in accordance with SEC rules, by providing access to these documents on the internet instead of mailing printed copies. Most stockholders will not receive printed copies of the proxy materials unless requested. Instead, the notice provides instructions on how to access and review the proxy materials on the internet. The notice also provides instructions on how to cast your vote via the internet or by telephone. If you would like to receive a printed or email copy of our proxy materials, please follow the instructions for requesting the materials in the notice. The Company may consider the engagement of a proxy solicitation firm. Our directors, officers and employees may also solicit proxies by mail, telephone and personal contact, but they will not receive any additional compensation for these activities.

STOCKHOLDER PROPOSALS FOR 2016 ANNUAL MEETING

Stockholders interested in submitting a proposal for consideration at our 2016 Annual Meeting must do so by sending the proposal to our Corporate Secretary at Organovo Holdings, Inc., 6275 Nancy Ridge Dr., Suite 110, San Diego, California 92121. Under the SEC's proxy rules, the deadline for submission of proposals to be included in our proxy materials for the 2016 Annual Meeting is March 12, 2016. Accordingly, in order for a stockholder proposal to be considered for inclusion in our proxy materials for the 2016 Annual Meeting, any such stockholder proposal must be received by our Corporate Secretary on or before March 12, 2016, and comply with the procedures and requirements set forth in Rule 14a-8 under the Securities Exchange Act of 1934, as well as the applicable requirements of our Bylaws. Any stockholder proposal received after March 12, 2016 will be considered untimely, and will not be included in our proxy materials. In addition, stockholders interested in submitting a proposal outside of Rule 14a-8 must properly submit such a proposal in accordance with our Bylaws.

Our Bylaws require advance notice of business to be brought before a stockholders' meeting, including nominations of persons for election as directors. To be timely, notice to our Corporate Secretary must be received at our principal executive offices not less than 45 days but not more than 75 days prior to the one-year anniversary of the date on which the Company first mailed its proxy materials or a notice of availability of proxy materials (whichever is earlier) for the 2015 Annual Meeting (i.e., July 10, 2016) and must contain specified information concerning the matters to be brought before such meeting and concerning the stockholder proposing such matters. Therefore, to be presented at our 2016 Annual Meeting, such a proposal must be received by the Company on or after April 26, 2016 but no later than May 26, 2016. If the date of the 2016 Annual Meeting is advanced by more than 30 days, or delayed by more than 60 days, from the anniversary date of the 2015 Annual Meeting, notice must be received no earlier than the 120th day prior to such Annual Meeting and not later than the close of business on the later of (i) the 90th day prior to such Annual Meeting or (ii) the 10th day following the day on which the public announcement of the date of such Annual Meeting is first made.

HOUSEHOLDING OF ANNUAL MEETING MATERIALS

We have adopted “householding,” a procedure approved by the SEC under which stockholders who share an address will receive a single copy of the Annual Report, Proxy Statement and Notice. This procedure reduces printing costs and mailing fees, while also reducing the environmental impact of the distribution of documents related to the Annual Meeting. If you reside at the same address as another Organovo Holdings, Inc. stockholder and wish to receive a separate copy of the Annual Meeting materials, you may do so by making a written or oral request to: Organovo Holdings, Inc., 6275 Nancy Ridge Dr., Suite 110, San Diego, California 92121, Attn: Corporate Secretary, telephone (858) 224-1000. Upon your request, we will promptly deliver a separate copy to you. The Annual Report, Proxy Statement and Notice are also available at www.proxydocs.com/onvo.

Some brokers household proxy materials, delivering a single proxy statement or notice to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be householding materials to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement or notice, please notify your broker directly. You may also write to: Continental Stock Transfer and Trust, 17 Battery Place, 8th Floor, New York, NY 10004, Attention: Kevin Jennings, and include your name, the name of your broker or other nominee, and your account number(s). Any stockholders who share the same address and currently receive multiple copies of the Annual Report, Proxy Statement and Notice who wish to receive only one copy in the future may contact their bank, broker, or other holder of record, or Organovo Holdings, Inc. at the contact information listed above, to request information about householding.

ANNUAL REPORT ON FORM 10-K

The Company filed an Annual Report on Form 10-K for the year ended March 31, 2015 with the Securities and Exchange Commission. A copy of the Company’s Annual Report on Form 10-K will also be made available (without exhibits), free of charge, to interested stockholders upon written request to Organovo Holdings, Inc., 6275 Nancy Ridge Dr., Suite 110, San Diego, California 92121, Attention: Corporate Secretary. The Annual Report on Form 10-K is not incorporated into this Proxy Statement and is not considered to be proxy-soliciting material.

BY ORDER OF THE BOARD OF DIRECTORS



Keith Murphy
*Chairman of the Board, Chief Executive
Officer and President*

July 10, 2015

ORGANOVO HOLDINGS, INC.

**AMENDED AND RESTATED
2012 EQUITY INCENTIVE PLAN**

1. Purposes of the Plan . The purposes of this Plan are:

- to attract and retain the best available personnel for positions of substantial responsibility;
- to provide incentives to individuals who perform services for the Company; and
- to promote the success of the Company's business.

The Plan permits the grant of Incentive Stock Options, Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Units, Performance Shares and other stock or cash awards as the Administrator may determine.

2. Definitions . As used herein, the following definitions will apply:

(a) “**Administrator**” means the Board or any of its Committees as will be administering the Plan, in accordance with Section 4 hereof.

(b) “**Affiliate**” means any corporation or any other entity (including, but not limited to, partnerships and joint ventures) controlling, controlled by, or under common control with the Company.

(c) “**Applicable Laws**” means the requirements relating to the administration of equity-based awards under U.S. federal and state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where Awards are, or will be, granted under the Plan.

(d) “**Award**” means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Units, Performance Shares and other stock or cash awards as the Administrator may determine.

(e) “**Award Agreement**” means the written or electronic agreement setting forth the terms and provisions applicable to each Award granted under the Plan. The Award Agreement is subject to the terms and conditions of the Plan.

(f) “**Board**” means the Board of Directors of the Company.

(g) “**Change in Control**” means the occurrence of any of the following events:

(i) A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group (“Person”), acquires ownership of stock in the Company that, together with the stock already held by such Person, constitutes more than 50% of the total voting power of the stock of the Company; provided, however, that for purposes of this subsection (i), the acquisition of additional stock by any Person who is considered to own more than 50% of the total voting power of the stock of the Company before the acquisition will not be considered a Change in Control; or

(ii) A change in the effective control of the Company, which occurs on the date that a majority of the members of the Board are replaced during any twelve (12) month period by Directors whose appointment or

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election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this subsection (ii), if any Person is considered to effectively control the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) A change in the ownership of a substantial portion of the Company's assets, which occurs on the date that any Person acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such Person) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection (iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets or a Change in Control: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person that owns, directly or indirectly, 50% or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least 50% of the total equity or voting power of which is owned, directly or indirectly, by a Person described in subsection (iii)(B)(3) above. For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

Notwithstanding the foregoing, as to any Award under the Plan that consists of deferred compensation subject to Section 409A of the Code, the definition of "Change in Control" shall be deemed modified to the extent necessary to comply with Section 409A of the Code.

For purposes of this Section 2(g), persons will be considered to be acting as a group if they are owners of a corporation or other entity that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

(h) "**Code**" means the Internal Revenue Code of 1986, as amended. Any reference to a section of the Code herein will be a reference to any successor or amended section of the Code.

(i) "**Committee**" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board in accordance with Section 4 hereof.

(j) "**Common Stock**" means the common stock, par value \$0.001 per share, of the Company.

(k) "**Company**" means Organovo Holdings, Inc., a Delaware corporation, or any successor thereto.

(l) "**Consultant**" means any person, including an advisor, engaged by the Company or a Parent, Subsidiary or Affiliate to render services to the Company or a Subsidiary.

(m) "**Determination Date**" means the latest possible date that will not jeopardize the qualification of an Award granted under the Plan as "performance-based compensation" under Section 162(m) of the Code.

(n) "**Director**" means a member of the Board.

(o) "**Disability**" means permanent and total disability as defined in Section 22(e)(3) of the Code, provided that in the case of Awards other than Incentive Stock Options, the Administrator in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

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(p) “**Employee**” means any person, including Officers and Directors, employed by the Company or any Parent, Subsidiary or Affiliate of the Company. Neither service as a Director nor payment of a director’s fee by the Company will be sufficient to constitute “employment” by the Company.

(q) “**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

(r) [*Reserved*]

(s) “**Fair Market Value**” means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market of The Nasdaq Stock Market, its Fair Market Value will be the closing sales price for such stock (or if no closing sales price was reported on that date, as applicable, on the last trading date such closing sales price was reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for the Common Stock on the day of determination (or, if no bids and asks were reported on that date, as applicable, on the last trading date such bids and asks were reported), as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, or if such Common Stock is not regularly quoted or does not have sufficient trades or bid prices which would accurately reflect the actual Fair Market Value of the Common Stock, the Fair Market Value will be determined in good faith by the Administrator upon the advice of a qualified valuation expert.

(t) “**Fiscal Year**” means the fiscal year of the Company.

(u) “**Incentive Stock Option**” means an Option that by its terms qualifies and is otherwise intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(v) “**Nonstatutory Stock Option**” means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

(w) “**Officer**” means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(x) “**Option**” means a stock option granted pursuant to Section 6 hereof.

(y) “**Parent**” means a “parent corporation,” whether now or hereafter existing, as defined in Section 424(e) of the Code.

(z) “**Participant**” means the holder of an outstanding Award.

(aa) “**Performance Goals**” will have the meaning set forth in Section 11 hereof.

(bb) “**Performance Period**” means any Fiscal Year of the Company or such other period as determined by the Administrator in its sole discretion.

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(cc) “ **Performance Share** ” means an Award denominated in Shares which may be earned in whole or in part upon attainment of Performance Goals or other vesting criteria as the Administrator may determine pursuant to Section 10 hereof.

(dd) “ **Performance Unit** ” means an Award which may be earned in whole or in part upon attainment of Performance Goals or other vesting criteria as the Administrator may determine and which may be settled for cash, Shares or other securities or a combination of the foregoing pursuant to Section 10 hereof.

(ee) “ **Period of Restriction** ” means the period during which transfers of Shares of Restricted Stock are subject to restrictions and, therefore, the Shares are subject to a substantial risk of forfeiture. Such restrictions may be based on the passage of time, the achievement of target levels of performance, or the occurrence of other events as determined by the Administrator.

(ff) “ **Plan** ” means this 2012 Equity Incentive Plan.

(gg) “ **Restricted Stock** ” means Shares issued pursuant to an Award of Restricted Stock under Section 8 hereof, or issued pursuant to the early exercise of an Option.

(hh) “ **Restricted Stock Unit** ” means a bookkeeping entry representing an amount equal to the Fair Market Value of one Share, granted pursuant to Section 9 hereof. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.

(ii) “ **Rule 16b-3** ” means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.

(jj) “ **Section 16(b)** ” means Section 16(b) of the Exchange Act.

(kk) “ **Service Provider** ” means an Employee, Director, or Consultant.

(ll) “ **Share** ” means a share of the Common Stock, as adjusted in accordance with Section 15 hereof.

(mm) “ **Stock Appreciation Right** ” means an Award, granted alone or in connection with an Option, that pursuant to Section 7 is designated as a Stock Appreciation Right.

(nn) “ **Subsidiary** ” means a “subsidiary corporation,” whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan .

(a) Subject to the provisions of Section 15 hereof, the maximum aggregate number of Shares that may be awarded and sold under the Plan is 17,553,986 Shares. The Shares may be authorized, but unissued or reacquired Common Stock.

(b) Lapsed Awards. If an Award expires or becomes unexercisable without having been exercised in full, or, with respect to Restricted Stock, Restricted Stock Units, Performance Shares or Performance Units, is forfeited to or repurchased by the Company, the unissued Shares (or for Awards other than Options and Stock Appreciation Rights, the forfeited or repurchased Shares) which were subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). Upon exercise of a Stock Appreciation Right settled in Shares, the gross number of Shares covered by the portion of the Award so exercised will cease to be available under the Plan. Shares that have actually been issued under the Plan under any Award will not be returned to the Plan and will not become available for future distribution under the Plan; provided, however, that if unvested Shares of Restricted Stock, Restricted Stock Units, Performance Shares or Performance Units are repurchased by

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the Company, such Shares will not become available for future grant under the Plan. Shares withheld or tendered (actually or through attestation) to pay the tax and/or exercise price of an Award will not become available for future grant or sale under the Plan. To the extent an Award under the Plan is payable in cash rather than Shares, such cash payment will not result in reducing the number of Shares available for issuance under the Plan. Notwithstanding the foregoing provisions of this Section 3(b), subject to adjustment provided in Section 14 hereof, the maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal the aggregate Share number stated in Section 3(a) above, plus, to the extent allowable under Section 422 of the Code, any Shares that become available for issuance under the Plan under this Section 3(b).

(c) Share Reserve. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as will be sufficient to satisfy the requirements of the Plan.

(d) Limitation on Number of Shares Subject to Awards. Notwithstanding any provision in the Plan to the contrary, the maximum aggregate number of Shares with respect to one or more Awards that may be granted to any one person during any calendar year (measured from the date of any grant) shall be 2,000,000 and the maximum aggregate amount of cash that may be paid in cash during any calendar year (measured from the date of any payment) with respect to one or more Awards payable in cash shall be \$2,000,000.

4. Administration of the Plan .

(a) Procedure .

(i) Multiple Administrative Bodies. Different Committees with respect to different groups of Service Providers may administer the Plan.

(ii) Section 162(m). To the extent that the Administrator determines it to be desirable to qualify Awards granted hereunder as “performance-based compensation” within the meaning of Section 162(m) of the Code, the Plan will be administered by a Committee of two (2) or more “outside directors” within the meaning of Section 162(m) of the Code.

(iii) Rule 16b-3. To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, the transactions contemplated hereunder will be structured to satisfy the requirements for exemption under Rule 16b-3.

(iv) Other Administration. Other than as provided above, the Plan will be administered by (A) the Board or (B) a Committee, which committee will be constituted to satisfy Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan, and in the case of a Committee, subject to the specific duties delegated by the Board to such Committee, the Administrator will have the authority, in its discretion:

- (i) to determine the Fair Market Value;
- (ii) to select the Service Providers to whom Awards may be granted hereunder;
- (iii) to determine the number of Shares to be covered by each Award granted hereunder;
- (iv) to approve forms of Award Agreements for use under the Plan;
- (v) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Award granted hereunder;

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(vi) to construe and interpret the terms of the Plan and Awards granted pursuant to the Plan;

(vii) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable foreign laws or for qualifying for favorable tax treatment under applicable foreign laws;

(viii) to modify or amend each Award (subject to Section 20(c) hereof), including but not limited to the discretionary authority to extend the post-termination exercisability period of Awards, but the Administrator cannot reduce the exercise price of an outstanding Award unless such action is approved by the Company's stockholders;

(ix) to allow Participants to satisfy withholding tax obligations in a manner described in Section 16 hereof;

(x) to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Award previously granted by the Administrator;

(xi) to allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that would otherwise be due to such Participant under an Award pursuant to such procedures as the Administrator may determine; and

(xii) to make all other determinations deemed necessary or advisable for administering the Plan.

(xiii) In addition, except in connection with a corporate transaction involving the Company (including, without limitation, any stock dividend, stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, or exchange of shares), the Administration shall not be permitted without stockholder approval to reprice outstanding Awards or to cancel or exchange an outstanding Award for cash or any other Award with an exercise price that is less than the exercise price of the original Award. For purposes of clarity, a "repricing" means any of the following (or any other action that has the same effect as any of the following): (A) changing the terms of an Award to lower its exercise price; (B) any other action that is treated as a "repricing" under generally accepted accounting principles; and (C) repurchasing for cash or canceling Award at a time when its exercise price is greater than the Fair Market Value of the underlying stock in exchange for another Award, unless the cancellation and exchange occurs in connection with an event set forth in Section 15. Such cancellation and exchange would be considered a "repricing" regardless of whether it is treated as a "repricing" under generally accepted accounting principles and regardless of whether it is voluntary on the part of the Participant.

(c) Effect of Administrator's Decision. The Administrator's decisions, determinations, and interpretations will be final and binding on all Participants and any other holders of Awards.

(d) No Reload Awards. No Award shall contain a reload feature that results in a new Award granted automatically upon delivery of Shares to the Company in payment of the exercise price or any tax withholding obligation.

5. Eligibility . Nonstatutory Stock Options, Restricted Stock, Restricted Stock Units, Stock Appreciation Rights, Performance Units, Performance Shares, and such other cash or stock awards as the Administrator determines may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

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6. Stock Options .

(a) Limitations .

(i) Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Participant during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds \$100,000 (U.S.), such Options will be treated as Nonstatutory Stock Options. For purposes of this Section 6(a), Incentive Stock Options will be taken into account in the order in which they were granted. The Fair Market Value of the Shares will be determined as of the time the Option with respect to such Shares is granted.

(ii) The Administrator will have complete discretion to determine the number of Shares subject to an Option granted to any Participant.

(b) Term of Option . The Administrator will determine the term of each Option in its sole discretion; provided, however, that the term will be no more than ten (10) years from the date of grant thereof. Moreover, in the case of an Incentive Stock Option granted to a Participant who, at the time the Incentive Stock Option is granted, owns stock representing more than 10% of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option will be five (5) years from the date of grant or such shorter term as may be provided in the Award Agreement.

(c) Option Exercise Price and Consideration .

(i) Exercise Price . The per share exercise price for the Shares to be issued pursuant to exercise of an Option will be determined by the Administrator, but will be no less than 100% of the Fair Market Value per Share on the date of grant. In addition, in the case of an Incentive Stock Option granted to an Employee who, at the time the Incentive Stock Option is granted, owns stock representing more than 10% of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price will be no less than 110% of the Fair Market Value per Share on the date of grant. Notwithstanding the foregoing provisions of this Section 6(c), Options may be granted with a per Share exercise price of less than 100% of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code.

(ii) Waiting Period and Exercise Dates . At the time an Option is granted, the Administrator will fix the period within which the Option may be exercised and will determine any conditions that must be satisfied before the Option may be exercised.

(iii) Form of Consideration . The Administrator will determine the acceptable form(s) of consideration for exercising an Option, including the method of payment, to the extent permitted by Applicable Laws. In the case of an Incentive Stock Option, the Administrator will determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of: (1) cash; (2) check; (3) promissory note, to the extent permitted by Applicable Laws, (4) other Shares, provided that such Shares have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option will be exercised and provided further that accepting such Shares will not result in any adverse accounting consequences to the Company, as the Administrator determines in its sole discretion; (5) consideration received by the Company under cashless exercise program (whether through a broker or otherwise) implemented by the Company in connection with the Plan; (6) by net exercise, (7) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws, or (8) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Administrator will consider if acceptance of such consideration may be reasonably expected to benefit the Company.

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(d) Exercise of Option.

(i) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder will be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Award Agreement. An Option may not be exercised for a fraction of a Share.

An Option will be deemed exercised when the Company receives: (A) notice of exercise (in such form as the Administrator specifies from time to time) from the person entitled to exercise the Option, and (B) full payment for the Shares with respect to which the Option is exercised (together with any applicable withholding taxes). Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Award Agreement and the Plan. Shares issued upon exercise of an Option will be issued in the name of the Participant or, if requested by the Participant, in the name of the Participant and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to an Option, notwithstanding the exercise of the Option. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 15 hereof.

(ii) Termination of Relationship as a Service Provider. If a Participant ceases to be a Service Provider, other than upon the Participant's termination as the result of the Participant's death or Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for three (3) months following the Participant's termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iii) Disability of Participant. Unless otherwise specified in the Award Agreement, if a Participant ceases to be a Service Provider as a result of the Participant's Disability, the Participant will fully vest in and have the right to exercise all of his or her outstanding Options within such period of time as is specified in the Award Agreement (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement), provided, however, that the accelerated vesting shall only apply to Options granted to the Participant at least 90 days before the Participant ceases to be a Service Provider as a result of Participant's Disability. In the absence of a specified time in the Award Agreement, the Option will remain exercisable for six (6) months following the date a Participant ceases to be a Service Provider as a result of Participant's Disability. If a Participant's Award Agreement specifically provides that Participant will not fully vest in all of the Shares covered by the Option on the date Participant ceases to be a Service Provider as a result of Participant's Disability, the Shares covered by the unvested portion of the Option will revert to the Plan. If after Participant ceases to be a Service Provider as a result of Participant's Disability, Participant does not exercise his or her Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iv) Death of Participant. Unless otherwise specified in the Award Agreement, if a Participant dies while a Service Provider, the Participant's outstanding Options will fully vest and may be exercised within such period of time as is specified in the Award Agreement (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement), by the Participant's designated beneficiary, provided such beneficiary has been designated prior to Participant's death in a form acceptable to the Administrator, provided, further, that the accelerated vesting shall only apply to Options granted to the Participant at least 90 days before the Participant ceases to be a Service Provider as a result of Participant's death. If no such beneficiary has been

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designated by the Participant, then such Option may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Option is transferred pursuant to the Participant's will or in accordance with the laws of descent and distribution. In the absence of a specified time in the Award Agreement, the Option will remain exercisable for six (6) months following Participant's death. If a Participant's Award Agreement specifically provides that Participant will not fully vest in all of the Shares covered by the Option if Participant dies while a Service Provider, the Shares covered by the unvested portion of the Option will continue to vest in accordance with the Award Agreement. If the Option is not so exercised within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

7. Stock Appreciation Rights .

(a) Grant of Stock Appreciation Rights . Subject to the terms and conditions of the Plan, a Stock Appreciation Right may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion.

(b) Number of Shares . The Administrator will have complete discretion to determine the number of Stock Appreciation Rights granted to any Participant.

(c) Exercise Price and Other Terms . The Administrator, subject to the provisions of the Plan, will have complete discretion to determine the terms and conditions of Stock Appreciation Rights granted under the Plan; provided, however, that the exercise price will be not less than 100% of the Fair Market Value of a Share on the date of grant.

(d) Stock Appreciation Rights Agreement . Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Stock Appreciation Right, the conditions of exercise, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(e) Expiration of Stock Appreciation Rights . A Stock Appreciation Right granted under the Plan will expire upon the date determined by the Administrator, in its sole discretion, and set forth in the Award Agreement; provided, however, that the term will be no more than ten (10) years from the date of grant thereof. Notwithstanding the foregoing, the rules of Section 6(d) above also will apply to Stock Appreciation Rights.

(f) Payment of Stock Appreciation Right Amount . Upon exercise of a Stock Appreciation Right, a Participant will be entitled to receive payment from the Company in an amount determined by multiplying:

(i) The difference between the Fair Market Value of a Share on the date of exercise over the exercise price; times

(ii) The number of Shares with respect to which the Stock Appreciation Right is exercised.

At the discretion of the Administrator, the payment upon Stock Appreciation Right exercise may be in cash, in Shares of equivalent value, or in some combination thereof.

(g) Death or Disability of Participant . Unless otherwise specified in the Award Agreement, if a Participant ceases to be a Service Provider as a result of the Participant's death or Disability, all of his or her outstanding Stock Appreciation Rights will fully vest and may be exercised within such period of time as is specified in the Award Agreement (but in no event later than the expiration of the term of such Stock Appreciation Rights as set forth in the Award Agreement) by the Participant or the Participant's designated beneficiary, provided such beneficiary has been designated prior to Participant's death in a form acceptable to the Administrator), provided, further, that the accelerated vesting shall only apply to Stock Appreciation Rights granted to the Participant at least 90 days before the Participant ceases to be a Service Provider as a result of Participant's death or Disability. If no such beneficiary has been designated by the Participant, then such Stock Appreciate Rights may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Stock Appreciation Right is transferred pursuant to the Participant's will or in accordance with the laws of descent and

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distribution. In the absence of a specified time in the Award Agreement, the Stock Appreciation Rights will remain exercisable for six (6) months following the date the Participant ceases to be a Service Provider as a result of Participant's death or Disability. If the Stock Appreciation Right is not so exercised within the time specified herein, the Stock Appreciation Right will terminate.

8. Restricted Stock .

(a) Grant of Restricted Stock . Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Shares of Restricted Stock to Service Providers in such amounts as the Administrator, in its sole discretion, will determine.

(b) Restricted Stock Agreement . Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify the Period of Restriction, the number of Shares granted, and such other terms and conditions as the Administrator, in its sole discretion, will determine. Unless the Administrator determines otherwise, the Company as escrow agent will hold Shares of Restricted Stock until the restrictions on such Shares have lapsed.

(c) Transferability . Except as provided in this Section 8, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction.

(d) Other Restrictions . The Administrator, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate.

(e) Removal of Restrictions . Except as otherwise provided in this Section 8, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan will be released from escrow as soon as practicable after the last day of the Period of Restriction. The Administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed. Unless otherwise specified in the Award Agreement, if a Participant ceases to be a Service Provider as a result of the Participant's death or Disability, all restrictions on his or her outstanding Restricted Stock, other than those that are Performance Shares (see Section 10 below), will automatically lapse or be removed), provided, however, that the accelerated vesting shall only apply to Restricted Stock granted to the Participant at least 90 days before the Participant ceases to be a Service Provider as a result of Participant's death or Disability.

(f) Voting Rights . During the Period of Restriction, Service Providers holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.

(g) Dividends and Other Distributions . During the Period of Restriction, Service Providers holding Shares of Restricted Stock will be entitled to receive all dividends and other distributions paid with respect to such Shares unless otherwise provided in the Award Agreement. If any such dividends or distributions are paid in Shares, the Shares will be subject to the same restrictions on transferability and forfeitability as the Shares of Restricted Stock with respect to which they were paid.

(h) Return of Restricted Stock to Company . On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed will revert to the Company and again will become available for grant under the Plan.

(i) Section 162(m) Performance Restrictions . For purposes of qualifying grants of Restricted Stock as "performance-based compensation" under Section 162(m) of the Code, the Administrator, in its discretion, may set restrictions based upon the achievement of Performance Goals. The Performance Goals will be set by the Administrator on or before the Determination Date. In granting Restricted Stock which is intended to qualify under Section 162(m) of the Code, the Administrator will follow any procedures determined by it from time to time to be necessary or appropriate to ensure qualification of the Award under Section 162(m) of the Code (e.g., in determining the Performance Goals).

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9. Restricted Stock Units .

(a) Grant . Restricted Stock Units may be granted at any time and from time to time as determined by the Administrator. Each Restricted Stock Unit grant will be evidenced by an Award Agreement that will specify such other terms and conditions as the Administrator, in its sole discretion, will determine, including all terms, conditions, and restrictions related to the grant, the number of Restricted Stock Units and the form of payout, which, subject to Section 9(d) hereof, may be left to the discretion of the Administrator.

(b) Vesting Criteria and Other Terms . The Administrator will set vesting criteria in its discretion, which, depending on the extent to which the criteria are met, will determine the number of Restricted Stock Units that will be paid out to the Participant. After the grant of Restricted Stock Units, the Administrator, in its sole discretion, may reduce or waive any restrictions for such Restricted Stock Units. Each Award of Restricted Stock Units will be evidenced by an Award Agreement that will specify the vesting criteria, and such other terms and conditions as the Administrator, in its sole discretion will determine. The Administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed. Unless otherwise specified in the Award Agreement, if a Participant ceases to be a Service Provider as a result of the Participant's death or Disability, all restrictions on his or her outstanding Restricted Stock Units, other than those that are Performance Units (see Section 10 below), will automatically lapse or be removed, provided, however, that the accelerated vesting shall only apply to Restricted Stock Units granted to the Participant at least 90 days before the Participant ceases to be a Service Provider as a result of Participant's death or Disability.

(c) Earning Restricted Stock Units . Upon meeting the applicable vesting criteria, the Participant will be entitled to receive a payout as specified in the Award Agreement.

(d) Form and Timing of Payment . Payment of earned Restricted Stock Units will be made as soon as practicable after the date(s) set forth in the Award Agreement. The Administrator, in its sole discretion, may pay earned Restricted Stock Units in cash, Shares, or a combination thereof. Shares represented by Restricted Stock Units that are fully paid in cash again will be available for grant under the Plan.

(e) Cancellation . On the date set forth in the Award Agreement, all unearned Restricted Stock Units will be forfeited to the Company.

(f) Section 162(m) Performance Restrictions . For purposes of qualifying grants of Restricted Stock Units as "performance-based compensation" under Section 162(m) of the Code, the Administrator, in its discretion, may set restrictions based upon the achievement of Performance Goals. The Performance Goals will be set by the Administrator on or before the Determination Date. In granting Restricted Stock Units which are intended to qualify under Section 162(m) of the Code, the Administrator will follow any procedures determined by it from time to time to be necessary or appropriate to ensure qualification of the Award under Section 162(m) of the Code (e.g., in determining the Performance Goals).

10. Performance Units and Performance Shares .

(a) Grant of Performance Units/Shares . Performance Units and Performance Shares may be granted to Service Providers at any time and from time to time, as will be determined by the Administrator, in its sole discretion. The Administrator will have complete discretion in determining the number of Performance Units/Shares granted to each Participant.

(b) Value of Performance Units/Shares . Each Performance Unit will have an initial value that is established by the Administrator on or before the date of grant. Each Performance Share will have an initial value equal to the Fair Market Value of a Share on the date of grant.

(c) Performance Objectives and Other Terms . The Administrator will set performance objectives or other vesting provisions. The Administrator may set vesting criteria based upon the achievement of Company-wide, business unit, or individual goals (including, but not limited to, continued employment), or any other basis

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determined by the Administrator in its discretion. Each Award of Performance Units/Shares will be evidenced by an Award Agreement that will specify the Performance Period, and such other terms and conditions as the Administrator, in its sole discretion, will determine. Unless otherwise specified in the Award Agreement, if a Participant ceases to be a Service Provider as a result of the Participant's death or Disability, all Performance Goals or other vesting criteria will be deemed achieved at target levels and all other terms and conditions met), provided, however, that the accelerated vesting shall only apply to Performance Units/Shares granted to the Participant at least 90 days before the Participant ceases to be a Service Provider as a result of Participant's death or Disability.

(d) Earning of Performance Units/Shares. After the applicable Performance Period has ended, the holder of Performance Units/Shares will be entitled to receive a payout of the number of Performance Units/Shares earned by the Participant over the Performance Period, to be determined as a function of the extent to which the corresponding performance objectives or other vesting provisions have been achieved. After the grant of a Performance Unit/Share, the Administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such Performance Unit/Share.

(e) Form and Timing of Payment of Performance Units/Shares. Payment of earned Performance Units/Shares will be made as soon as practicable after the expiration of the applicable Performance Period. The Administrator, in its sole discretion, may pay earned Performance Units/Shares in the form of cash, in Shares (which have an aggregate Fair Market Value equal to the value of the earned Performance Units/Shares at the close of the applicable Performance Period) or in a combination thereof.

(f) Cancellation of Performance Units/Shares. On the date set forth in the Award Agreement, all unearned or unvested Performance Units/Shares will be forfeited to the Company, and again will be available for grant under the Plan.

(g) Section 162(m) Performance Restrictions. For purposes of qualifying grants of Performance Units/Shares as "performance-based compensation" under Section 162(m) of the Code, the Administrator, in its discretion, may set restrictions based upon the achievement of Performance Goals. The Performance Goals will be set by the Administrator on or before the Determination Date. In granting Performance Units/Shares which are intended to qualify under Section 162(m) of the Code, the Administrator will follow any procedures determined by it from time to time to be necessary or appropriate to ensure qualification of the Award under Section 162(m) of the Code (e.g., in determining the Performance Goals).

11. Performance-Based Compensation Under Code Section 162(m) .

(a) General. If the Administrator, in its discretion, decides to grant an Award intended to qualify as "performance-based compensation" under Code Section 162(m), the provisions of this Section 11 will control over any contrary provision in the Plan; provided, however, that the Administrator may in its discretion grant Awards that are not intended to qualify as "performance-based compensation" under Section 162(m) of the Code to such Participants that are based on Performance Goals or other specific criteria or goals but that do not satisfy the requirements of this Section 11.

(b) Performance Goals. The granting and/or vesting of Awards of Restricted Stock, Restricted Stock Units, Performance Shares and Performance Units and other incentives under the Plan may be made subject to the attainment of performance goals relating to one or more business criteria within the meaning of Code Section 162(m) and may provide for a targeted level or levels of achievement ("Performance Goals") including: (i) earnings per Share; (ii) operating cash flow; (iii) operating income; (iv) profit after-tax; (v) profit before-tax; (vi) return on assets; (vii) return on equity; (viii) return on sales; (ix) revenue; and (x) total shareholder return; (xi) return on capital, including but not limited to return on invested capital against a weighted average cost of capital; (xii) return on net assets; (xiii) economic value added; (xiv) market share; (xv) customer service; (xvi) customer satisfaction; (xvii) safety; (xviii) total stockholder return; (xix) free cash flow; (xx) net operating income; (xxi) operating cash flow; (xxii) return on investment; (xxiii) employee satisfaction; (xxiv) employee retention; (xxv) balance of cash, cash equivalents and marketable securities; (xxvi) product development;

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(xxvii) research and development expenses; (xxviii) completion of an identified special project; (xxix) completion of a joint venture or other corporate transaction; (xxx) filing of patents; (xxxi) submission and/or publication of Scientific Works; (xxxii) execution or expansion of strategic partnerships or relationships; or (xxxiii) such other measures as determined by the Committee consistent with the terms of the Equity Incentive Plan. Any Performance Goals may be used to measure the performance of the Company as a whole or a business unit of the Company and may be measured relative to a peer group or index. The Performance Goals may differ from Participant to Participant and from Award to Award. Prior to the Determination Date, the Administrator will determine whether any significant element(s) will be included in or excluded from the calculation of any Performance Goal with respect to any Participant.

(c) Procedures. To the extent necessary to comply with the performance-based compensation provisions of Code Section 162(m), with respect to any Award granted subject to Performance Goals, within the first twenty-five percent (25%) of the Performance Period, but in no event more than ninety (90) days following the commencement of any Performance Period (or such other time as may be required or permitted by Code Section 162(m)), the Administrator will, in writing, (i) designate one or more Participants to whom an Award will be made, (ii) select the Performance Goals applicable to the Performance Period, (iii) establish the Performance Goals, and amounts of such Awards, as applicable, which may be earned for such Performance Period, and (iv) specify the relationship between Performance Goals and the amounts of such Awards, as applicable, to be earned by each Participant for such Performance Period. Following the completion of each Performance Period, the Administrator will certify in writing whether the applicable Performance Goals have been achieved for such Performance Period. In determining the amounts earned by a Participant, the Administrator will have the right to reduce or eliminate (but not to increase) the amount payable at a given level of performance to take into account additional factors that the Administrator may deem relevant to the assessment of individual or corporate performance for the Performance Period. A Participant will be eligible to receive payment pursuant to an Award for a Performance Period only if the Performance Goals for such period are achieved.

(d) Limitation on Dividends and Dividend Equivalents. Any dividend or dividend-equivalent payment paid on an Award granted under this Section 11 may be (i) reinvested in additional Shares or units, in either case, subject to the same restrictions as the underlying Award, or (ii) withheld, credited with interest at the sole discretion of the Administrator, and later paid in cash or Shares (with a Fair Market Value per Share equal to any accumulated dividends or dividend-equivalent payments) once the underlying Award vests. If an Award granted under this Section 11 is forfeited, any accumulated dividends or dividend-equivalent payments are also forfeited.

(e) Additional Limitations. Notwithstanding any other provision of the Plan, any Award which is granted to a Participant and is intended to constitute qualified performance based compensation under Code Section 162(m) will be subject to any additional limitations set forth in the Code (including any amendment to Section 162(m)) or any regulations and ruling issued thereunder that are requirements for qualification as qualified performance-based compensation as described in Section 162(m) of the Code, and the Plan will be deemed amended to the extent necessary to conform to such requirements.

12. Compliance with Code Section 409A. Awards will be designed and operated in such a manner that they are either exempt from the application of, or comply with, the requirements of Code Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Plan and each Award Agreement under the Plan is intended to meet the requirements of Code Section 409A and will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Administrator. To the extent that an Award or payment, or the settlement or deferral thereof, is subject to Code Section 409A the Award will be granted, paid, settled or deferred in a manner that will meet the requirements of Code Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A.

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13. Leaves of Absence . Unless the Administrator provides otherwise, vesting of Awards granted hereunder will be suspended during any unpaid leave of absence. A Service Provider will not cease to be an Employee in the case of (i) any leave of absence approved by the Company, or (ii) transfers between locations of the Company or between the Company, its Parent, or any Subsidiary. For purposes of Incentive Stock Options, no such leave may exceed three (3) months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then six (6) months and one day following the commencement of such leave any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.

14. Transferability of Awards . Unless determined otherwise by the Administrator, an Award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, such Award may only be transferred (i) by will, (ii) by the laws of descent and distribution, (iii) to a revocable trust, or (iii) as permitted by Rule 701 of the Securities Act of 1933, as amended.

15. Adjustments; Dissolution or Liquidation; Merger or Change in Control .

(a) Adjustments . In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of Shares that may be delivered under the Plan and/or the number, class, and price of Shares covered by each outstanding Award, and the numerical Share limits set forth in Sections 3, 7, 8, 9 and 10 hereof.

(b) Dissolution or Liquidation . In the event of the proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

(c) Change in Control . In the event of a merger of the Company with or into another corporation or other entity or a Change in Control, each outstanding Award will be treated as the Administrator determines (subject to the provisions of the proceeding paragraph) without a Participant's consent, including, without limitation, that (i) Awards will be assumed, or substantially equivalent Awards will be substituted, by the acquiring or succeeding corporation (the "Successor Corporation") (or an affiliate thereof) with appropriate adjustments as to the number and kind of shares and prices; (ii) upon written notice to a Participant, that the Participant's Awards will terminate upon or immediately prior to the consummation of such merger or Change in Control; (iii) outstanding Awards will vest and become exercisable, realizable, or payable, or restrictions applicable to an Award will lapse, in whole or in part prior to or upon consummation of such merger or Change in Control, and, to the extent the Administrator determines, terminate upon or immediately prior to the effectiveness of such merger or Change in Control; (iv) (A) the termination of an Award in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Participant's rights as of the date of the occurrence of the transaction (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the Administrator determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Participant's rights, then such Award may be terminated by the Company without payment), or (B) the replacement of such Award with other rights or property selected by the Administrator in its sole discretion; or (v) any combination of the foregoing. In taking any of the actions permitted under this subsection (c), the Administrator will not be obligated to treat all Awards, all Awards held by a Participant, or all Awards of the same type, similarly.

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In the event that the Successor Corporation does not assume or substitute for the Award, the Participant will fully vest in and have the right to exercise all of his or her outstanding Options and Stock Appreciation Rights, including Shares as to which such Awards would not otherwise be vested or exercisable, all restrictions on Restricted Stock will lapse, and, with respect to Restricted Stock Units, Performance Shares and Performance Units, all Performance Goals or other vesting criteria will be deemed achieved at target levels and all other terms and conditions met. In addition, if an Option or Stock Appreciation Right is not assumed or substituted for in the event of a Change in Control, the Administrator will notify the Participant in writing or electronically that the Option or Stock Appreciation Right will be fully vested and exercisable for a period of time determined by the Administrator in its sole discretion, and the Option or Stock Appreciation Right will terminate upon the expiration of such period.

For the purposes of this subsection (c), an Award will be considered assumed if, following the Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the Change in Control, the consideration (whether stock, cash, or other securities or property) or, in the case of a Stock Appreciation Right upon the exercise of which the Administrator determines to pay cash or a Performance Share or Performance Unit which the Administrator can determine to pay in cash, the fair market value of the consideration received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the Change in Control is not solely common stock of the Successor Corporation, the Administrator may, with the consent of the Successor Corporation, provide for the consideration to be received upon the exercise of an Option or Stock Appreciation Right or upon the payout of a Performance Share or Performance Unit, for each Share subject to such Award (or in the case of Performance Units, the number of implied shares determined by dividing the value of the Performance Units by the per share consideration received by holders of Common Stock in the Change in Control), to be solely common stock of the Successor Corporation equal in fair market value to the per share consideration received by holders of Common Stock in the Change in Control.

Notwithstanding anything in this Section 15(c) to the contrary, an Award that vests, is earned or paid-out upon the satisfaction of one or more Performance Goals will not be considered assumed if the Company or its successor modifies any of such Performance Goals without the Participant's consent; provided, however, a modification to such Performance Goals only to reflect the Successor Corporation's post-Change in Control corporate structure will not be deemed to invalidate an otherwise valid Award assumption. In the case of an Award providing for the payment of deferred compensation subject to Section 409A of the Code, any payment of such deferred compensation by reason of a Change in Control shall be made only if the Change in Control is one described in subsection (a)(2)(A)(v) of Section 409A and the guidance thereunder and shall be paid consistent with the requirements of Section 409A. If any deferred compensation that would otherwise be payable by reason of a Change in Control cannot be paid by reason of the immediately preceding sentence, it shall be paid as soon as practicable thereafter consistent with the requirements of Section 409A, as determined by the Administrator.

16. Tax Withholding .

(a) Withholding Requirements . Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof), the Company will have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy federal, state, local, foreign or other taxes (including the Participant's FICA obligation) required to be withheld with respect to such Award (or exercise thereof).

(b) Withholding Arrangements . The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy such tax withholding obligation, in whole or in part by (without limitation) (i) paying cash, (ii) electing to have the Company withhold otherwise deliverable cash or Shares having a Fair Market Value equal to the minimum amount required to be withheld, (iii) delivering to the Company already-owned Shares having a Fair Market Value equal to the amount required to be withheld,

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or (iv) selling a sufficient number of Shares otherwise deliverable to the Participant through such means as the Administrator may determine in its sole discretion (whether through a broker or otherwise) equal to the amount required to be withheld. The amount of the withholding requirement will be deemed to include any amount which the Administrator agrees may be withheld at the time the election is made, not to exceed the amount determined by using the maximum federal, state or local marginal income tax rates applicable to the Participant with respect to the Award on the date that the amount of tax to be withheld is to be determined. The Fair Market Value of the Shares to be withheld or delivered will be determined as of the date that the taxes are required to be withheld.

17. No Effect on Employment or Service . Neither the Plan nor any Award will confer upon a Participant any right with respect to continuing the Participant's relationship as a Service Provider with the Company, nor will they interfere in any way with the Participant's right or the Company's right to terminate such relationship at any time, with or without cause, to the extent permitted by Applicable Laws.

18. Date of Grant . The date of grant of an Award will be, for all purposes, the date on which the Administrator makes the determination granting such Award, or such other later date as is determined by the Administrator. Notice of the determination will be provided to each Participant within a reasonable time after the date of such grant.

19. Term of Plan . Subject to Section 23 hereof, the Plan, as amended and restated, will become effective upon its adoption by the Company's stockholders at the 2015 Annual Meeting of Stockholders. It will continue in effect for a term of ten (10) years unless terminated earlier under Section 20 hereof.

20. Amendment and Termination of the Plan .

(a) Amendment and Termination . The Administrator may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval . The Company will obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination . No amendment, alteration, suspension, or termination of the Plan will impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Awards granted under the Plan prior to the date of such termination.

21. Conditions Upon Issuance of Shares .

(a) Legal Compliance . Shares will not be issued pursuant to the exercise of an Award unless the exercise of such Award and the issuance and delivery of such Shares will comply with Applicable Laws and will be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations . As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

(c) Restrictive Legends . All Award Agreements and all securities of the Company issued pursuant thereto shall bear such legends regarding restrictions on transfer and such other legends as the appropriate officer of the Corporation shall determine to be necessary or advisable to comply with applicable securities and other laws.

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22. Inability to Obtain Authority . The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, will relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority will not have been obtained.

23. Stockholder Approval . The Plan will be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws. In the event that stockholder approval is not obtained within twelve (12) months after the date the Plan is adopted by the Board, the Plan and all Awards granted hereunder shall be void ab initio and of no effect. Notwithstanding any other provisions of the Plan, no Awards shall be exercisable until the date of such stockholder approval.

24. Notification of Election Under Section 83(b) of the Code . If any Service Provider shall, in connection with the acquisition of Shares under the Plan, make the election permitted under Section 83(b) of the Code, such Service Provider shall notify the Company of such election within ten (10) days of filing notice of the election with the Internal Revenue Service and provide the Company with a copy thereof, in addition to any filing and a notification required pursuant to regulations issued under the authority of Section 83(b) of the Code. A Service Provider shall not be permitted to make a Section 83(b) election with respect to an Award of a Restricted Stock Unit.

25. Notification Upon Disqualifying Disposition Under Section 421(b) of the Code . Each Service Provider shall notify the Company of any disposition of Shares issued pursuant to the exercise of an Incentive Stock Option under the circumstances described in Section 421(b) of the Code (relating to certain disqualifying dispositions), within ten (10) days of such disposition.

26. Choice of Law . The Plan and all rules and determinations made and taken pursuant hereto will be governed by the laws of the State of Delaware, to the extent not preempted by federal law, and construed accordingly.

27. Clawback or Recoupment . Unless otherwise specified in the Award Agreement or determined in the Administrator's sole discretion, all Awards, and all Shares and cash payable under each Award, are subject to any clawback or recoupment policy adopted by the Company (including any policy required under the Dodd-Frank Wall Street Reform and Consumer Protection Act or other Applicable Laws), regardless of whether the policy is adopted after the date on which the Award is granted, vests or becomes exercisable, or is exercised or settled by issuance of Shares, payment of cash, or a combination of both.

organovo™
ANNUAL MEETING OF ORGANOVO HOLDINGS, INC.
Date: August 20, 2015
Time: 9:00 A.M. (local time)
Place: 10966 Torreyana Road, San Diego, California 92121
Please make your marks like this: ☒ Use dark black pencil or pen only
Board of Directors Recommends a Vote **FOR** proposals 1, 2, 3, and 4.

- 1: Election of two Class I Directors:
- | | For | Against | Abstain |
|-----------------------|--------------------------|--------------------------|--------------------------|
| 01 Keith Murphy | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 02 Kirk Malloy, Ph.D. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- 2: To ratify the appointment of Mayer Hoffman McCann P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2016.
- | | For | Against | Abstain |
|--|--------------------------|--------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- 3: To hold a non-binding advisory vote on the compensation of our named executive officers.
- | | For | Against | Abstain |
|--|--------------------------|--------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- 4: To approve an amendment and restatement of our 2012 Equity Incentive Plan, which among other changes described in our Proxy Statement, increases the number of shares of Common Stock issuable under the Plan by 6,000,000 shares.
- | | For | Against | Abstain |
|--|--------------------------|--------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Authorized Signatures - This section must be completed for your instructions to be executed.

_____ Please Sign Here	_____ Please Date Above
_____ Please Sign Here	_____ Please Date Above

Please sign exactly as your name(s) appears on your stock certificate. If held in joint tenancy, all persons should sign. Trustees, administrators, etc., should include title and authority. Corporations should provide full name of corporation and title of authorized officer signing the proxy.

organovo™
Annual Meeting of Organovo Holdings, Inc.
to be held on Wednesday, August 20, 2015
for Holders as of June 22, 2015
This proxy is being solicited on behalf of the Board of Directors

VOTE BY:

INTERNET
Go To www.proxydocs.com/onvo
• Cast your vote online.
• View Meeting Documents.

OR

MAIL
• Mark, sign and date your Proxy Card/Voting Instruction Form.
• Detach your Proxy Card/Voting Instruction Form.
• Return your Proxy Card/Voting Instruction Form in the postage-paid envelope provided.

TELEPHONE
855-773-1622
• Use any touch-tone telephone.
• Have your Proxy Card/Voting Instruction Form ready.
• Follow the simple recorded instructions.

The undersigned hereby appoints Barry Michaels and Cy Talbot, and each or either of them, as the true and lawful proxies of the undersigned, with full power of substitution and revocation, and authorizes them, and each of them, to vote all the shares of common stock of Organovo Holdings, Inc. which the undersigned is entitled to vote at said meeting and any adjournment thereof upon the matters specified and upon such other matters as may be properly brought before the meeting or any adjournment or postponement thereof, conferring authority upon such true and lawful proxies to vote in their discretion on such other matters as may properly come before the meeting and revoking any proxy heretofore given.

THE SHARES REPRESENTED BY THIS PROXY WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, SHARES WILL BE VOTED FOR THE ELECTION OF THE DIRECTORS IN ITEM 1 AND FOR THE PROPOSALS IN ITEMS 2, 3, AND 4.

All votes must be received by 11:59 P.M., Eastern Time, August 19, 2015.

PROXY TABULATOR FOR
ORGANOVO HOLDINGS, INC.
P.O. BOX 8016
CARY, NC 27512-9903

EVENT #
CLIENT #

Proxy — Organovo Holdings, Inc.
Annual Meeting of Stockholders
August 20, 2015, 9:00 a.m. (local time)
This Proxy is Solicited on Behalf of the Board of Directors

The undersigned appoints Barry Michaels and Cy Talbot (the "Named Proxies") and each or either of them as proxies for the undersigned, with full power of substitution and revocation, to vote all the shares of common stock of Organovo Holdings, Inc., a Delaware Corporation ("the Company"), which the undersigned is entitled to vote at the Annual Meeting of Stockholders of the Company to be held at 10966 Torreyana Road, San Diego, California 92121 on Thursday, August 20, 2015 at 9:00 a.m. local time and all adjournments and postponements thereof.

The purpose of the Annual Meeting is to take action on the following:

1. Election of two Class I Directors;
2. To ratify the appointment of Mayer Hoffman McCann P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2016;
3. To hold a non-binding advisory vote on the compensation of our named executive officers; and
4. To approve an amendment and restatement of our 2012 Equity Incentive Plan, which among other changes described in our Proxy Statement, increases the number of shares of Common Stock issuable under the Plan by 6,000,000 shares.

The two directors up for re-election are: Keith Murphy and Kirk Malloy, Ph.D.

The Board of Directors of the Company recommends a vote "FOR" all nominees for director and "FOR" each proposal.

This proxy, when properly executed, will be voted in the manner directed herein. If no direction is made, this proxy will be voted "FOR" all nominees for director and "FOR" each proposal. In their discretion, the Named Proxies are authorized to vote upon such other matters that may properly come before the Annual Meeting or any adjournments or postponements thereof.

You are encouraged to specify your choice by marking the appropriate box (SEE REVERSE SIDE) but you need not mark any box if you wish to vote in accordance with the Board of Directors' recommendations. The Named Proxies cannot vote your shares unless you sign and return this card.

To attend the meeting and vote your shares
in person, please mark this box.

☐

→ Please separate carefully at the perforation and return just this portion in the envelope provided →