
**UNITED STATES
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:

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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:



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

July 14, 2017

Dear Stockholder:

You are cordially invited to attend this year's Annual Meeting of Stockholders of Organovo Holdings, Inc. on Thursday, August 24, 2017 at 9:00 a.m. (local time). The meeting will be held at Green Acre Campus Pointe, 10300 Campus Point Drive, San Diego, California 92121.

We are pleased to furnish proxy materials primarily over the internet based on the rules established by the Securities and Exchange Commission (the "SEC"). We believe this will allow us to quickly provide proxy materials to you, while lowering the costs of distribution and reducing the environmental impact of our Annual Meeting.

On July 14, 2017, we mailed a Notice of Internet Availability of Proxy Materials (the "Notice") to our stockholders (other than those who previously requested electronic or paper delivery) 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, 2017, 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 2017 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 2017 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 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 "Taylor Crouch". The signature is fluid and cursive, with a large initial "T" and "C".

Taylor Crouch
Chief Executive Officer and President

ORGANOVO HOLDINGS, INC. NOTICE OF 2017 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON AUGUST 24, 2017

To Our Stockholders:

The 2017 Annual Meeting of Stockholders (the "Annual Meeting") of Organovo Holdings, Inc. ("Organovo" or the "Company") will be held at Green Acre Campus Pointe, 10300 Campus Point Drive, San Diego, California 92121 on Thursday, August 24, 2017 at 9:00 a.m. (local time) for the following purposes:

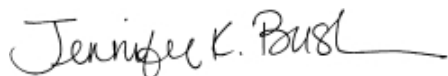
1. To elect Robert Baltera Jr., James Glover, and Richard Maroun as Class III Directors to hold office until the 2020 Annual Meeting of Stockholders and until their respective successors are elected and qualified;
2. To ratify the appointment of Mayer Hoffman McCann P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2018;
3. To hold a non-binding advisory vote on the compensation of our named executive officers; and
4. 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 and 3 listed above. Stockholders of record at the close of business on June 28, 2017 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 2017 Annual Meeting of Stockholders, Proxy Statement and Annual Report are available at www.proxydocs.com/onvo.

By Order of the Board of Directors



Jennifer K. Bush
Senior Vice President, General Counsel, Corporate Secretary, & Compliance Officer

July 14, 2017



2017 Proxy Statement Summary

To assist you in reviewing the Proxy Statement for the Organovo Holdings, Inc. (“Organovo” or the “Company”) 2017 Annual Meeting of Stockholders (the “Annual Meeting”), we call your attention to the following summary information about the Annual Meeting, the proposals to be considered at the Annual Meeting and our corporate governance and compensation frameworks. For more complete information, please review our Proxy Statement and Annual Report for the fiscal year ended March 31, 2017. 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 24, 2017 at 9:00 a.m. (local time) |
| Place: | Green Acre Campus Pointe, 10300 Campus Point Drive, San Diego, California 92121 |
| Record Date: | June 28, 2017 |
| 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. 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 broker, bank, trustee or nominee. |

Please be advised that all purses, briefcases, bags, etc. may be subject to inspection. The use of mobile phones, pagers, recording or photographic equipment, tablets and/or computers is not permitted in the meeting room during the Annual Meeting.

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Proposals and Voting Recommendations

| | Board Vote Recommendation | Page References (for more detail) |
|---|--------------------------------------|--|
| Proposals: | | |
| (1) Election of three Class III directors to hold office until the 2020 Annual Meeting of Stockholders and until their respective successors are elected and qualified. | FOR EACH NOMINEE | 5 |
| (2) Ratification of appointment of Mayer Hoffman McCann P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2018. | FOR | 7 |
| (3) Non-binding advisory vote on the compensation of our named executive officers. | FOR | 9 |

Corporate Governance Summary Facts

We seek to maintain high 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. The following table summarizes some of the key elements of our corporate governance framework:

| | |
|--|----------|
| Size of Board | 8 |
| Number of Independent Directors | 6 |
| Chairman and CEO | Separate |
| Lead Independent Director | Yes |
| Board Self-Evaluation | Annual |
| Review Board and Board Committee Independence and Qualifications | Annual |
| Hold Executive Sessions | Yes |
| Annual Director Elections | No |
| All Directors Received At Least 80% Approval at 2016 Annual Meeting | Yes |
| Diverse Board (as to background, experience and skills) | Yes |
| Board has Adopted Corporate Governance Guidelines | Yes |
| Board has Not Amended Charters or Taken Actions to Reduce Stockholder Rights | True |
| Director Meeting Attendance Above 75% | Yes |
| Stock Ownership Guidelines | Yes |
| No Family Relationships Among Officers and Directors | True |
| All Committee Chairs and Members Qualify as Independent Directors | Yes |
| CEO Serves on Less Than Three Outside Boards | True |

Addition of Two Independent Directors

On August 17, 2016, the Board of Directors, on the recommendation of the Nominating and Corporate Governance Committee, appointed two new independent directors, Richard Maroun and Mark Kessel, to the Board. Mr. Kessel was appointed to the Board to fill the vacancy created when Richard Heyman, Ph.D. retired from the Board. Mr. Maroun was appointed to fill a newly created position. The Board also appointed Mr. Maroun to the Audit and Compensation Committees and Mr. Kessel to the Nominating and Corporate Governance Committee.

Mr. Kessel is a partner of Symphony Capital, LLC, a private equity firm he co-founded in 2002 that invests in biopharmaceutical company clinical development programs. He is also Of Counsel at Shearman & Sterling and a

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member of the firm's capital markets group. Previously, from 1971 to 2001, Mr. Kessel held various roles at Shearman & Sterling, including as managing partner leading the international law firm's day-to-day operations. He helped build the firm, serving as a leader in the healthcare, biopharmaceutical, agricultural biotech, high-tech, and financial services practices. He also established the firm's San Francisco office, serving as its managing partner and turning it into the leader in M&A, capital markets, corporate governance, and intellectual property and licensing issues. Mr. Kessel has previously served on several public biopharmaceutical company boards.

Mr. Maroun is an executive partner at Frazier Healthcare Partners, a private equity and venture capital firm specializing in healthcare-focused investments. Before joining Frazier in 2015, Mr. Maroun was Senior Vice President and General Counsel of Aptalis Pharmaceuticals from 2012 to 2014. He has also held numerous senior executive roles for APP Pharmaceuticals, Abraxis BioScience and American BioScience Inc. Mr. Maroun has worked with major financial organizations and independent law firms, and has held both legal and financial positions with companies including Merrill Lynch, Deloitte & Touche and McDonough, Holland & Allen. Mr. Maroun currently serves on the board of Leiter's Enterprises, a private portfolio company of Frazier Healthcare Partners, and the Board of Trustees of John Carroll University.

Summary of Compensation Best Practices

Our Board of Directors established a Compensation Committee comprised of four independent directors in accordance with the rules and regulations established by the Securities and Exchange Commission and the NASDAQ Stock Market. Our Board has delegated to the Compensation Committee the authority to establish the Company's executive compensation program and to approve all compensation received by the Company's executive officers and the other members of its management team. The Compensation Committee retained Barney & Barney as its independent compensation consultant, to assist it in evaluating the Company's executive compensation program and selecting an appropriate peer group of comparable companies for purposes of setting executive compensation.

The Compensation Committee regularly reviews best practices in governance and executive compensation. The following is a high-level summary of certain executive compensation practices that the Compensation Committee believes drive Company performance and serve our stockholders' long-term interests:

| | |
|--|--------|
| Compensation Committee Comprised of At Least Three Independent Directors | Yes |
| Independent Compensation Consultant Retained | Yes |
| No Related Party Transactions with Members of Compensation Committee | True |
| Compensation Based on Comparison to Peer Group Data | Yes |
| All Directors and Officers Subject to Stock Ownership Guidelines | Yes |
| Compensation Committee Performs Compensation Risk Assessment | Annual |
| Prohibitions Against all Directors, Officers and Employees Hedging or Pledging Stock | Yes |
| Incentive Plans Based on Performance Metrics | Yes |
| Company Does Not Offer Tax Gross Ups for Severance or Change of Control | Yes |
| Reasonable and Double Trigger Accelerated Vesting Provisions Adopted | Yes |
| No Multi-Year Guaranteed Bonuses | Yes |
| Stock Option Plan Prohibits Option Repricing and Share Recycling | Yes |
| Company has Not Repriced Options in Last Three Years | Yes |
| No Executive Employment Agreements with Guaranteed Terms | Yes |
| Offer Limited Perquisites to Executives | Yes |
| Consider Feedback from Stockholder Outreach | Yes |
| Terms of Severance Plan Described to Stockholders | Yes |

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

PROXY STATEMENT FOR THE 2017 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD AUGUST 24, 2017

This Proxy Statement, along with a proxy card, is being made available to our stockholders on or about July 14, 2017

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 2017 Annual Meeting of Stockholders (the “Annual Meeting”) to be held on Thursday, August 24, 2017 at Green Acre Campus Pointe, 10300 Campus Point Drive, 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, 2017 (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 28, 2017 (the “Record Date”) are entitled to vote on the proposals presented at the Annual Meeting. As of June 28, 2017, we had 105,627,542 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. All share represented by a proxy will be voted at the Annual Meeting, and where a stockholder specifies choice with respect to any matter

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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 and in favor of proposals 2 and 3.

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.

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

1. To elect Robert Baltera, Jr., James Glover, and Richard Maroun as Class III directors to hold office until the 2020 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, 2018; and
3. To hold a non-binding advisory vote on the compensation of our named executive officers.

Our Board of Directors recommends a vote **FOR** each of the director nominees and **FOR** proposals 2 and 3 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 have submitted your proxy, the persons named in your proxy will have the discretion to vote on those matters for you.

Votes Required

Proposal 1 – Election of Directors

Under our Certificate of Incorporation and Bylaws, the Class III directors will be elected by a plurality of the votes cast in person or by proxy at the 2017 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.

Proposal 2 – Ratification of Auditors

If a quorum is present, the affirmative vote of a majority of the votes cast at the 2017 Annual Meeting is required for ratification of our independent registered public accounting firm. Abstentions will be counted as present for purposes of determining the presence of a quorum, but will not be considered as votes cast for or against the proposal and will therefore have no effect on the outcome of the vote.

Proposal 3 – Advisory Vote on Named Executive Officer Compensation

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 2017 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.

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 23, 2017.
- **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 23, 2017.
- **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

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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, P.C. as the Company's independent registered public accounting firm for the fiscal year ended March 31, 2018, in favor of the non-binding advisory vote on the compensation of our named executive officers, 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 23, 2017, (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 23, 2017), 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.

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 Securities and Exchange Commission.

PROPOSAL 1: ELECTION OF DIRECTORS

General

Our certificate of incorporation and bylaws provide for a classified Board of Directors consisting of three classes of directors with staggered three-year terms. The Board of Directors currently consists of 8 directors, having terms expiring at the respective annual meetings of stockholders listed below:

| <u>2017 Annual Meeting</u> | <u>2018 Annual Meeting</u> | <u>2019 Annual Meeting</u> |
|----------------------------|----------------------------|----------------------------|
| Robert Baltera, Jr. | Kirk Malloy | Taylor Crouch* |
| James Glover | Keith Murphy | Tamar Howson |
| Richard Maroun* | | Mark Kessel* |

* Under our Corporate Governance Guidelines, a person elected by the directors then in office to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall have been duly elected and qualified. Mr. Kessel was appointed to the Board in August 2016 to fill the vacancy created when Richard Heyman, Ph.D. retired from the Board. Mr. Maroun and Mr. Crouch were appointed to the Board in August 2016 and April 2017, respectively, to fill newly created positions.

Proposal to Elect Three Directors to Hold Office for Three Years until the 2020 Annual Meeting

Upon the recommendation of the Nominating and Corporate Governance Committee of the Board, the Board has nominated for election at the Annual Meeting the following slate of three nominees to hold office for three years until the 2020 Annual Meeting of Stockholders and until their successors are duly elected and qualified:

| <u>Name</u> | <u>Age</u> | <u>Director Since</u> | <u>Principal Occupation</u> | <u>Experience/Qualifications</u> | <u>Current Committee Membership</u> | <u>Independent ?</u> |
|---------------------|------------|-----------------------|---|--|--|----------------------|
| Robert Baltera, Jr. | 52 | 2009 | Board Member, Chief Executive of multiple biotech companies | <ul style="list-style-type: none"> • Leadership • Industry • Scientific Education | <ul style="list-style-type: none"> • Compensation Committee • Audit Committee | Yes |
| James Glover | 67 | 2012 | Board Member, former CFO | <ul style="list-style-type: none"> • Leadership • Financial and Accounting Expertise | <ul style="list-style-type: none"> • Compensation Committee • Audit Committee • Nominating & Governance Committee | Yes |
| Richard Maroun | 62 | 2016 | Board Member, Venture Capitalist, former senior executive of multiple life sciences companies | <ul style="list-style-type: none"> • Leadership • Industry • Strategy | <ul style="list-style-type: none"> • Compensation Committee • Audit Committee | Yes |

Additional Information

For additional information about each nominee and each of the other directors serving on our Board, please see pages 10-13 in our Proxy Statement.

Vote Required

Under our Certificate of Incorporation and Bylaws, the Class III 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

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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.

Each of the nominees is currently serving as a director, and all 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 Board of Directors may designate, unless a contrary instruction is indicated in the proxy.

Board Recommendation

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR AND SOLICITS PROXIES IN FAVOR OF ROBERT BALTERA, JR., JAMES GLOVER, AND RICHARD MAROUN.

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 Robert Baltera, Jr., James Glover, and Richard Maroun.

PROPOSAL 2: RATIFICATION OF 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, 2018. 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, and has approved, the engagement of Mayer Hoffman as our independent registered public accounting firm for the fiscal year ending March 31, 2018. Mayer Hoffman has advised us that it leases substantially all of its personnel, who work under the control of Mayer Hoffman’s shareholders, from wholly-owned subsidiaries of CBIZ, Inc., including CBIZ MHM, LLC, in an alternative practice structure. Accordingly, substantially all of the hours expended on Mayer Hoffman’s engagement to audit the Company’s financial statements for the fiscal years ended March 31, 2017 and 2016, were attributed to work performed by persons other than Mayer Hoffman’s full-time, permanent employees.

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, 2017 and 2016.

| | <u>Fiscal Year 2017</u> | <u>Fiscal Year 2016</u> |
|--------------------|-------------------------|-------------------------|
| Audit fees | \$ 290,600 | \$ 245,600 |
| Audit-related fees | — | — |
| Tax Fees | \$ 31,600 | \$ 21,500 |
| All other fees | — | — |
| Total | <u>\$ 322,200</u> | <u>\$ 267,100</u> |

Audit Fees: For the fiscal years ended March 31, 2017 and 2016, 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, 2017 and 2016, 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, 2017 and 2016, 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, 2017 and 2016, there were no fees billed by our independent auditors for other services, other than the fees described above.

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

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

Although ratification is not required by our bylaws or otherwise, the Board is submitting this proposal as a matter of good corporate governance. If stockholders do not ratify the appointment of Mayer Hoffman, the Audit Committee and the Board would consider what, if any, action to take. Even if the appointment is ratified, the Audit Committee, in its discretion, may direct the appointment of a different independent audit firm at any time during the fiscal year if it is determined that such a change would be in the best interests of Organovo and its stockholders.

Board Recommendation

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, 2018.

PROPOSAL 3: ADVISORY VOTE TO APPROVE COMPENSATION OF NAMED EXECUTIVE OFFICERS

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 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 achieving our commercialization objectives, increasing long-term stockholder value, and advancing our product development and technology platform. 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.

Vote Required

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 in the Company’s 2017 Proxy Statement pursuant to the Securities and Exchange Commission’s compensation disclosure rules, including the Compensation Discussion and Analysis and Executive Compensation sections.”

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 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.

Board Recommendation

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.

BOARD OF DIRECTORS INFORMATION

Presently, our Board of Directors is comprised of eight directors. 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, three Class II directors, and three Class III directors. The Class III directors, whose terms will expire at our 2017 Annual Meeting, are Robert Baltera, Jr., James Glover, and Richard Maroun. Our Class I directors, whose terms will expire at our 2018 Annual Meeting, are Keith Murphy, our Chairman, and Kirk Malloy, Ph.D., our Lead Independent Director. Our Class II directors, whose terms will expire at our 2019 Annual Meeting, are Tamar Howson, Mark Kessel, and Taylor Crouch, our Chief Executive Officer and President.

The Board, based on the recommendation of the Nominating and Corporate Governance Committee, has nominated Robert Baltera, Jr., James Glover, and Richard Maroun for election at the Annual Meeting as Class III directors, for a three-year term expiring at the 2020 Annual Meeting of Stockholders. Directors are elected by a plurality of the votes cast at the Annual Meeting, which means that the three director nominees receiving the highest number of “FOR” votes will be elected as Class III directors. Messrs. Baltera, Glover, and Maroun have indicated their willingness to serve if elected, but if any 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 to their Board duties.

Information About Our Directors

The following sets forth information regarding the business experience of our current directors and our director nominees as of July 14, 2017:

| <u>Name</u> | <u>Age</u> | <u>Position</u> |
|---------------------|------------|---|
| Robert Baltera, Jr. | 52 | Director and Director Nominee |
| Taylor Crouch | 57 | Director, Chief Executive Officer and President |
| James Glover | 67 | Director and Director Nominee |
| Tamar Howson | 68 | Director |
| Mark Kessel | 76 | Director |
| Kirk Malloy, Ph.D. | 50 | Lead Independent Director |
| Richard Maroun | 62 | Director and Director Nominee |
| Keith Murphy | 45 | Chairman of the Board |

Nominees for Class III Directors Continuing in Office until the 2020 Annual Meeting of Stockholders

Robert Baltera, Jr., Director, has served as a member of the Board since October 2009, and served as the Lead Independent Director from June 2014 through August 2016. Mr. Baltera joined Frazier Healthcare Partners, a venture capital firm, as entrepreneur-in-residence in January 2016, and co-founded Hawkeye Therapeutics, a search company focused on in-licensing and developing high-quality assets from pharmaceutical companies. Since March, 2017, he has served as Chief Executive Officer at Frazier portfolio company Cirius Therapeutics, which is developing a next-generation insulin sensitizer for the treatment of nonalcoholic steatohepatitis (NASH). He has also served as the Executive Chairman of Mavupharma, Inc. since March, 2017. From February 2015 until December 2015, Mr. Baltera served 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

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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. Mr. Baltera previously served on the board of directors of Xencor, Inc., a publicly-held biotechnology development company. He currently serves on the board of directors of Panmira Pharmaceuticals, LLC, 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.

Mr. Baltera's executive leadership experience, his experience in developing therapeutic and pharmaceutical products, his past and current board and board committee service, and as his educational background qualify him to be a member of our Board of Directors.

James T. Glover, Director, has served as a director since 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 pharmaceutical and life sciences companies, his past and current board and board committee experience and his finance and accounting expertise and experience qualify him to be a member of our Board of Directors.

Richard Maroun, Director, joined our Board in August 2016. Mr. Maroun has held management and executive leadership positions in pharmaceutical and life science companies for more than 20 years. He is currently an Executive Partner of Frazier Healthcare Partners, a position he has held since June 2014. From 2012 through February 2014, Mr. Maroun was the Senior Vice President, General Counsel and Corporate Secretary of Aptalis Pharma US, Inc. From 2007 to 2011, Mr. Maroun served as the Executive Vice President, Chief Administrative Officer, General Counsel, Business Development Officer, and Corporate Secretary of APP Pharmaceuticals, Inc. From 2006 to 2007, Mr. Maroun was the Executive Vice President, Chief Administrative Officer, General Counsel, and Corporate Secretary of Abraxis BioScience, Inc. From 2004 to 2006, Mr. Maroun was Vice President, Business Development and General Counsel of American BioScience, Inc. Prior to joining American BioScience, Mr. Maroun was a Director of Merrill Lynch, Pierce, Fenner & Smith, and before that he was a Senior Tax Manager of Deloitte & Touche. Mr. Maroun received his B.S. degree in economics from John Carroll University in 1977, his J.D. Degree from Santa Clara University in 1979, and his L.L.M. in Taxation from Boston University Law School in 1981. Mr. Maroun is currently a member of the Board of Trustees of John Carroll University, a director of Aadi Bioscience, Inc., and a board member or advisor of several privately held companies funded by Frazier Healthcare Partners, including Leiter's Enterprises, Inc., Golden State Medical Supply Co., Elements Behavioral Health, Inc., and Orthotic Holdings, Inc.

Mr. Maroun's managerial and leadership experience at pharmaceutical and life sciences companies, his experience in mergers, acquisitions, and finance, and as his legal and accounting expertise and education qualify him to be a member of our Board of Directors.

Class I Directors Continuing in Office until the 2018 Annual Meeting of Stockholders

Kirk Malloy, Ph.D., Lead Independent Director, joined our board in December 2014, and has served as our Lead Independent Director since August 2016. Dr. Malloy has held management and executive leadership positions in rapidly growing life science and diagnostic companies for more than 20 years. Dr. Malloy is currently an independent consultant for life science companies and serves as an independent director for public and private companies, including NanoString Technologies, Inc., iGenomX, and Edico Genome. Dr. Malloy previously served as the Senior Vice President and General Manager of the Life Sciences and Applied Markets Business of Illumina, Inc., a position he held from January 2014 to April 2016. At that time, the Life Sciences and Applied Markets Business was Illumina's largest business unit, with annual revenues greater than \$1 billion. Dr. Malloy joined Illumina in 2002, and 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, 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.

Keith Murphy, Chairman of the Board, is one of the Company's founders and serves as Chairman of the Board. Mr. Murphy previously served as our President, Chief Executive Officer and Chairman from July 2007 through April 2017. 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.

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.

Class II Directors Continuing in Office Until the 2019 Annual Meeting of Stockholders

Taylor Crouch, Director, Chief Executive Officer, and President, joined the Company as Chief Executive Officer and President and was appointed to the Board in April 2017. Mr. Crouch has over 25 years of experience building and leading technology, expertise and product-based companies in the life sciences and biotech industries. For more than seven years, he managed and served as an operational investor in a group of leading clinical research site companies. Specifically, Mr. Crouch served as Chief Executive Officer at eStudySite from January 2009 to June 2016; as Executive Chairman of Meridien Research from December 2013 to September 2016; and as a Director of the National Research Institute from September 2011 through July 2016. Prior to this, Mr. Crouch served as senior vice president of operations/president international at Ligand Pharmaceuticals, Inc.,

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a publicly traded company, from 2005 to 2007, with responsibilities for new business development, technical operations, international sales and clinical research. Prior to Ligand, he was president and chief operating officer of Discovery Partners International, a publicly traded drug discovery services and technology provider. Earlier in his career, he was Chief Executive Officer of Variagenics, Inc., a publicly traded pharmacogenomics company, Senior Vice President of Marketing and Sales at Parexel International (a global CRO), and he also held international management positions in new product development and commercialization at Pfizer and Schering Plough.

Mr. Crouch's previous service as a chief executive officer or as a senior executive officer for other leading life science and biotech companies, especially his experience and leadership in growing their commercial operations and sales, as well as his new role as our Chief Executive Officer and President, qualify him to be a member of our Board of Directors.

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: ContraVir Pharmaceuticals, Inc. and Enzymotec PLC. During the prior five years, Ms. Howson served as a director of the following publicly traded companies: OXiGENE, Inc., Cynapsus Therapeutics Inc., 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.

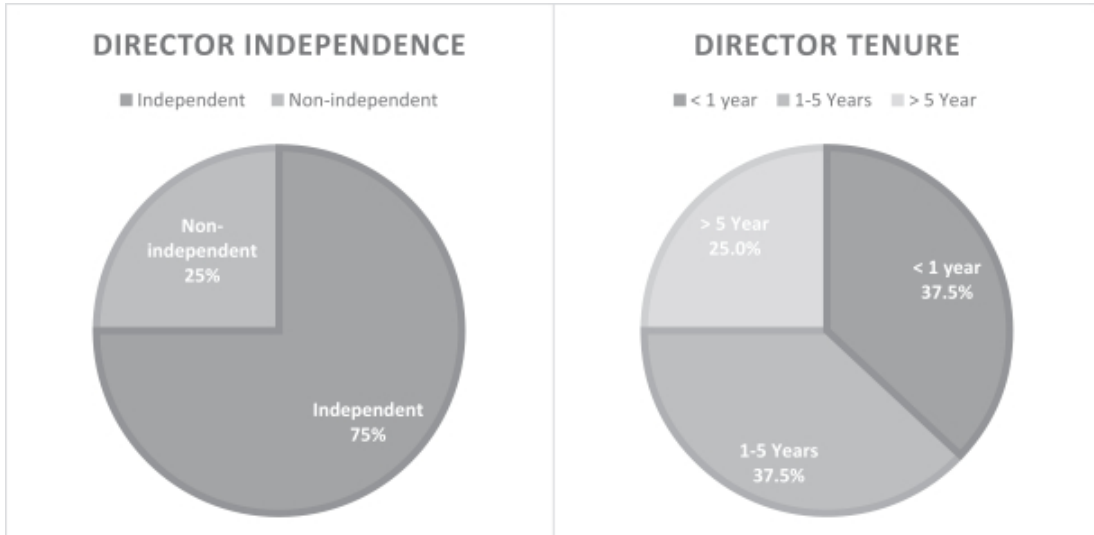
Ms. Howson's extensive experience in the pharmaceutical and biotech industries, including as a corporate business development and strategy consultant to biopharmaceutical companies and as a senior professional at leading pharmaceutical companies, and her past and current board and board committee service qualify her to be a member of our Board of Directors.

Mark Kessel, Director, joined our Board in August, 2016. Mr. Kessel is a partner of Symphony Capital, LLC, a private equity firm he co-founded in 2002 that invests in biopharmaceutical company clinical development programs. He is also Of Counsel at the law firm of Shearman & Sterling, and a member of the firm's capital markets group. Previously, from 1971 to 2001, Mr. Kessel held various roles at Shearman & Sterling, including as managing partner leading the international law firm's day-to-day operations. He helped build the firm, serving as a leader in the healthcare, biopharmaceutical, agricultural biotech, high-tech, and financial services practices. He also established the firm's San Francisco office, serving as its managing partner and turning it into the leader in M&A, capital markets, corporate governance, and intellectual property and licensing issues. Mr. Kessel has previously served on several public biopharmaceutical company boards.

Mr. Kessel's extensive experience in corporate governance, licensing, and strategic finance, as well as his deep experience advising pharmaceutical and biotech companies, qualify him to be a member of our Board of Directors.

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The following figures reflect the current independence status and tenure of our Board, as of June 28, 2017:



No Family Relationships

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

CORPORATE GOVERNANCE

Overview

We are committed to maintaining high 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 three standing committees to assist it in fulfilling its responsibilities to the Company and its stockholders: the Audit Committee, the Compensation Committee, and the Nominating and Corporate Governance 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 amended by our Board 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. Among other matters, our Code of Business conduct is designed to deter unlawful or unethical behavior and to promote the following:

- Prohibiting conflicts of interest (including protecting corporate opportunities);
- Protecting our confidential and proprietary information and that of our customers and vendors;
- Treating our employees, customers, suppliers and competitors fairly;
- Encouraging full, fair, accurate, timely and understandable disclosure;
- Protecting and properly using company assets;
- Complying with laws, rules and regulations (including insider trading laws); and
- Encouraging the reporting of any unlawful or unethical behavior.

Any waiver of the Code of Business Conduct for our executive officers, directors or employees may be made only by our Nominating and Corporate Governance Committee and will be promptly disclosed on our website. We have posted a copy of our Code of Business Conduct, and intend to post amendments to this code, on our website as permitted under SEC rules and regulations.

Board Independence

Our shares of common stock are listed for trading on the NASDAQ Stock Market. As a result, our Board utilizes the definition of “independence” as that term is defined by the listing standards of the NASDAQ Stock Market and the rules and regulations of the SEC, including the additional independence requirements for members of our Audit and Compensation Committees. Our Board considers that a director is independent when the director is not

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










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 NASDAQ Stock Market 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 six of our eight directors, including Robert Baltera, Jr., James Glover, Tamar Howson, Mark Kessel, Kirk Malloy, Ph.D., and Richard Maroun, qualify as “independent” directors. In addition, Richard Heyman, Ph.D. qualified as an “independent” director during his Board service, which ended at the 2016 Annual Meeting of Stockholders. Two of our directors, Taylor Crouch and Keith Murphy, do not qualify as independent directors due to their current or past service as our Chief Executive Officer and President.

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 present, Mr. Murphy serves as Chairman of the Board, and Mr. Crouch serves as our Chief Executive Officer. Our Board has determined that separating the positions of Chief Executive Officer and Chairman of the Board is in the best interests of the Company and its stockholders at this time. As an additional key element of its leadership structure, our Board has appointed Dr. Malloy to serve as Lead Independent Director.

Our Board believes that the current leadership structure, which includes a Lead Independent Director and the separation of the Chairman and Chief Executive Officer roles, enhances the accountability of our Chief Executive Officer to our Board and encourages balanced decision making. In addition, our Board believes that this structure provides an environment in which the independent directors are fully informed, have significant input into the content of Board meetings, and are able to provide objective and thoughtful oversight of management. Our Board also adopted this leadership structure in recognition of the differences in responsibilities. While our Chief Executive Officer is responsible for the day-to-day leadership and operations of the Company, the Chairman of the Board and the Lead Independent Director provide guidance to our Board and set the agenda for Board meetings. Our Lead Independent Director also provides performance feedback on behalf of our Board to our Chief Executive Officer. Our Board also considered that 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 intends to evaluate from time to time whether our Chief Executive Officer and Chairman positions should remain separate based on what our Board determines is best for the Company and its stockholders.

Board Committees

| | Chairperson | Member | Financial Expert |
|--|---|---|---|
| | <u>Audit Committee</u> | <u>Compensation Committee</u> | <u>Nominating and Corporate Governance Committee</u> |
| Independent Director | | | |
| Robert Baltera, Jr., M.S., M.B.A.  |  |  | |
| James T. Glover, M.B.A., C.P.A.  |  |  |  |
| Tamar D. Howson, M.S., M.B.A.  |  |  | |
| Mark Kessel, J.D. | | |  |
| Kirk Malloy, Ph.D. | | |  |
| Richard Maroun, J.D.  |  |  | |
| Non-Independent Director | | | |
| Taylor Crouch | | | |
| Keith Murphy | | | |

Compensation Committee. Our Compensation Committee currently consists of Mr. Baltera (Chair), Mr. Glover, Ms. Howson, and Mr. Maroun. Dr. Heyman served on the Compensation Committee through August 17, 2016. 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 NASDAQ listing standards, 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 Mr. Baltera, Ms. Howson, Mr. Glover, and Mr. Maroun are each an “independent director” under NASDAQ listing standards 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. Glover (Chair), Ms. Howson, Mr. Baltera, and Mr. Maroun. Dr. Heyman served as a member of the Audit Committee through August 17, 2016. 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 NASDAQ listing standards, are financially literate under NASDAQ listing standards, and at least one member has financial sophistication under NASDAQ listing

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standards. The Board has also determined that Ms. Howson and Messrs. Glover, Baltera, and Maroun 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 Dr. Malloy (Chair), Mr. Glover, and Mr. Kessel. The functions of the Nominating and Corporate Governance Committee include the identification, recruitment and nomination of candidates for the Board and its 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 NASDAQ listing standards 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.

Board and Committee Attendance

During the fiscal year ended March 31, 2017, 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 six times and acted by written consent six times during the fiscal year ended March 31, 2017; the Audit Committee met four times and did not act by written consent during the fiscal year ended March 31, 2017; the Compensation Committee met seven times and acted by written consent one time during the fiscal year ended March 31, 2017; and the Nominating and Corporate Governance Committee met five times and did not act by written consent during the fiscal year ended March 31, 2017.

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 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.

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- 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 the NASDAQ Stock Market.

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.

Stock Ownership Guidelines

All of our executive officers and non-employee Directors are subject to stock ownership guidelines approved by the Board within five years of starting employment or becoming a Director. Our Chief Executive Officer is required to beneficially hold a number of shares of the Company's common stock with a value equal to five times (5x) his base salary. All other executive officers are required to hold a number of shares with a value equal to three times (3x) their base salary. Non-employee Directors are required to beneficially hold a number of shares of the Company's common stock with a value equal to four times (4x) the annual cash retainer paid to them for service as a member of our Board. Each of our executive officers and each of our non-employee Directors who have been a member of the Board for more than one year are in compliance with the Stock Ownership Guidelines.

Succession Planning

The Corporate Governance Guidelines provide for a formal succession planning process for the Company's Chief Executive Officer and its other executives and key employees.

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, relevant industry knowledge (e.g., research tools, contract research services, therapeutics, drug discovery, reimbursement, medical/surgical), accounting and finance, regulatory matters and clinical trials, leadership, strategic planning and international markets), as well as independence, judgment, professional reputation, integrity and ability to represent the best interests of the Company and its 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.

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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 other reasons. 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.

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 1.0% 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. A stockholder wishing to formally nominate an individual for election to the Board must do so by following the procedures described in the Company's Bylaws. There has been no change to the procedures set forth in the Company's Bylaws by which stockholders may recommend nominees to our Board. For information concerning stockholder proposals, see "Stockholder Proposals for the 2018 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.

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. Our employee directors receive no separate compensation for their service as directors.

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 connection with establishing our non-employee director compensation for Fiscal 2017, the Compensation Committee retained F.W. Cook as its independent compensation consultant. With the assistance of F.W. Cook, the Board of Directors and Compensation Committee conducted a formal review of our non-employee director compensation and incentive programs relative to the same peer group used in benchmarking the compensation of our executive officers. The Compensation Committee and the Board determined that a philosophy of targeting total compensation for our non-employee directors at the 50th percentile (based on peer group benchmarks), is in the best interests of the Company and its stockholders.

Non-Employee Director Compensation Framework

For Fiscal 2017, our non-employee director compensation program consisted of: (i) annual cash retainers for Board service and for service as the chair or member of one of the standing Board Committees and (ii) long-term equity awards granted on an annual basis to continuing non-employee directors immediately following the Annual Meeting of Stockholders or upon their initial appointment to the Board for new directors. Our non-employee directors are not entitled to any Board or Board Committee meeting fees.

Annual Cash Retainers. For Fiscal 2017, each of our non-employee directors was eligible to receive an annual cash retainer of \$50,000 for Board membership and the Lead Independent Director was eligible to receive an additional \$50,000. In addition, for Fiscal 2017 each of our non-employee directors was eligible to receive the applicable annual retainers set forth below for Committee Chairs and for service as a member of a Board Committee:

| <u>Position</u> | <u>Audit Committee</u> | <u>Compensation Committee</u> | <u>Nominating & Governance Committee</u> | <u>Science & Technology Committee</u> |
|---------------------------------------|------------------------|-------------------------------|--|---|
| Committee Chair (additional retainer) | \$ 15,000 | \$ 10,000 | \$ 9,500 | \$ 9,500 |
| Committee Member | \$ 10,000 | \$ 7,750 | \$ 5,000 | \$ 5,000 |

No additional meeting fees were paid to our non-employee directors. The Science & Technology Committee has been suspended as of March 9, 2017, with its matters now covered by the entire Board of Directors.

Annual Long-Term Equity Awards. In addition to the annual cash retainers, each non-employee director continuing in office after the adjournment of the 2016 Annual Meeting of Stockholders received a stock option award and a restricted stock unit ("RSU") award (collectively, the "Annual Awards") immediately following the

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adjournment of the annual meeting. The number of shares subject to the Annual Awards were calculated as follows:

- (a) The Company first calculated a “Total Share Equivalent Number”, which is defined as the number of shares of common stock equal to 0.04% of the outstanding shares of common stock of the Company as of the date of the award, with the number of shares subject to the option rounded to the nearest 500 shares.
- (b) The Company then calculated the total number of shares of common stock subject to the annual stock option award by (i) multiplying the Total Share Equivalent Number by (ii) fifty percent.
- (c) The Company then calculated the number of shares of common stock subject to the annual RSU award by (i) (A) multiplying the Total Share Equivalent Number by (B) fifty percent and (ii) dividing this product by 2.5.

The annual stock option awards have an exercise price equal to the closing market price of the Company’s common stock on the date of the Annual Awards. Each such Annual Award will vest in full on the earlier of (i) one year from the date of the award or (ii) the next Annual Meeting of Stockholders held by the Company, subject to acceleration in the event of the change of control.

Initial Long-Term Equity Awards. During Fiscal 2017, our non-employee director compensation program provided that upon joining the Board of Directors (whether by appointment or election by stockholders), a non-employee director will receive an initial stock option award and an initial RSU award (collectively, the “Initial Awards”). The Initial Awards shall be calculated on the same basis as the Annual Awards, provided that the Initial Awards shall each be pro-rated based on the date of the director’s appointment or election and the number of months remaining in the twelve-month period between the last regularly scheduled Annual Meeting held by the Company and the next regularly scheduled Annual Meeting to be held by the Company. The initial stock option award shall have an exercise price equal to the closing market price of the Company’s common stock on the date of the award. Each such Initial Award will vest quarterly over a period of twelve quarters from the vesting commencement date, subject to acceleration in the event of the change of control. In Fiscal 2017, Mark Kessel and Richard Maroun received Initial Awards in connection with their appointment to the Board.

Reimbursement. Our non-employee Directors are entitled to reimbursement for their reasonable travel and lodging expenses for attending Board and Board Committee meetings.

Director Compensation Table

The following table sets forth the compensation earned and paid to each non-employee director for service as a director during Fiscal 2017:

| Name | Fees Earned or Paid in Cash (\$) | Stock Awards \$(1) | Option Awards \$(1) | All Other Compensation \$(8) | Total (\$) |
|--------------------------|--|--------------------------|---------------------------|------------------------------------|------------|
| Robert Baltera, Jr.(2) | \$ 103,625 | \$32,625 | \$ 51,582 | \$ — | \$187,832 |
| James Glover | \$ 82,750 | \$32,625 | \$ 51,582 | \$ — | \$166,957 |
| Tamar Howson | \$ 79,773 | \$32,625 | \$ 51,582 | \$ — | \$163,980 |
| Kirk Malloy, Ph.D.(2) | \$ 67,856 | \$32,625 | \$ 51,582 | \$ 50,000(7) | \$202,063 |
| Richard Maroun(3) | \$ 41,976 | \$65,250(5) | \$103,165(6) | \$ — | \$210,391 |
| Mark Kessel(3) | \$ 37,174 | \$65,250(5) | \$103,165(6) | \$ — | \$205,589 |
| Richard Heyman, Ph.D.(4) | \$ 38,750 | \$ — | \$ — | \$ — | \$ 38,750 |

- (1) These amounts represent the grant date fair value of equity-based awards granted by the Board, 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, 2017, as filed with the SEC.

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- (2) Mr. Baltera served as our Lead Independent Director through August 2016. Dr. Malloy was appointed as our Lead Independent Director in August 2016.
- (3) Messrs. Maroun and Kessel each joined the Board in August 2016.
- (4) Dr. Heyman retired from the Board in August 2016.
- (5) Represents the grant date value of an Annual RSU award and an Initial RSU award, which are provided to each newly elected non-employee Director.
- (6) Represents the grant date value of an Annual option award and an Initial option award, which are provided to each newly elected non-employee Director.
- (7) Amount represents compensation the Board approved in connection with a leadership role in the Board's efforts to search for and evaluate potential CEO candidates, to negotiate an acceptable transition arrangement with Mr. Murphy and to provide support to the Company's management team during the search and transition process.
- (8) Excludes amounts reimbursed for reasonable travel to Board meetings.

Director Compensation – Equity

The following table shows the total number of unvested RSUs and total option awards held by each of our non-employee directors as of March 31, 2017:

| Name | Unvested RSUs Outstanding (#) | Vested Stock Options Outstanding (#) | Unvested Stock Options Outstanding (#) |
|---------------------------|--|---|---|
| Robert Baltera, Jr. | 7,500 | 148,000 | 18,500 |
| James Glover | 7,500 | 148,000 | 18,500 |
| Tamar Howson | 7,500 | 144,500 | 18,500 |
| Kirk Malloy, Ph.D. | 7,500 | 79,375 | 32,625 |
| Richard Maroun | 13,750 | 3,084 | 33,916 |
| Mark Kessel | 13,750 | 3,084 | 33,916 |
| Richard Heyman, Ph.D. (1) | — | — | — |

- (1) Dr. Heyman retired from the Board in August 2016.

EXECUTIVE OFFICERS

The following persons are our executive officers and hold the positions set forth opposite their names as of July 14, 2017.

| <u>Name</u> | <u>Age</u> | <u>Position</u> |
|------------------------------|------------|--|
| Taylor Crouch | 57 | Chief Executive Officer and President |
| Craig Kussman | 59 | Chief Financial Officer |
| Sharon Presnell, Ph.D. | 48 | Chief Scientific Officer |
| Eric David, MD, JD | 45 | Chief Strategy Officer and Executive Vice President of Pre-Clinical Development |
| Jennifer Kinsbruner Bush, JD | 42 | Senior Vice President, General Counsel, Corporate Secretary and Compliance Officer |
| Paul Gallant | 52 | General Manager |

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

Craig Kussman, Chief Financial Officer, joined us in August 2016. Prior to joining Organovo, Mr. Kussman served as the Chief Financial Officer at Alphasen Corporation, a lifestyle healthcare company, from October 2014 to August 2016. From August 2010 until October 2014, Mr. Kussman served as Chief Financial Officer of XIFIN, Inc., a healthcare information technology company. Mr. Kussman also formerly served as Chief Financial Officer and Senior Vice President of Corporate Development for Ascenta Therapeutics, a developmental stage biopharmaceutical company. He has also held senior executive positions at Breach Security, Discovery Partners International, Inc., SYNAVANT Inc., Cognizant Corp., and IMS Health. Mr. Kussman received an MBA in Finance from The Wharton School, and a BA in Economics and Mathematics from Pomona College.

Sharon Collins Presnell, Ph.D., Chief Scientific Officer, 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 Scientific 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 named Executive Vice President of Pre-Clinical Development in June 2015. From October 2005 to May 2012, Dr. David served in a number of 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

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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.

Jennifer Kinsbruner Bush, JD, Senior Vice President, 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.

Paul Gallant, General Manager, joined us in August 2015 as General Manager. Mr. Gallant has more than 20 years of management and research and development experience in the drug discovery industry, most recently serving as Chief Operating Officer for DiscoverRx, a global scientific product and services company, from November 2010 to August 2015. As Chief Operating Officer at DiscoverRx, Mr. Gallant was responsible for the company's largest business unit, drug discovery services. Mr. Gallant formerly served as senior director at Ambit Pharmaceuticals, acquired by DiscoverRx in 2010, from September 2005 to November 2010, where he led the development and commercialization for the KINOMEScan platform. The world's largest commercial kinase screening panel, KINOMEScan became a key element of DiscoverRx's offering post-acquisition. Mr. Gallant has also led research and development and service teams at Amgen, Millennium Pharmaceuticals, Cubist Pharmaceuticals and Massachusetts General Hospital. Mr. Gallant received a B.A. in biology from Colby College.

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 28, 2017 (the record date) by (i) each person who, to our knowledge (based solely on our review of Schedules 13D and 13G filed with the SEC), beneficially owns more than 5% of our common stock; (ii) each of our directors, director nominees and named executive officers (as disclosed in this Proxy Statement); 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 on or before June 28, 2017. In cases of holders who are not directors, director nominees and named executive officers, Schedules 13G or 13D filed with the SEC (and, consequently, ownership reflected here) often reflect holdings as of a date prior to June 28, 2017. 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 28, 2017. These shares, however, are not deemed outstanding for the purpose of computing the percentage ownership of any other individual.

Applicable percentages are based on 105,627,542 shares of common stock outstanding as of June 28, 2017, as adjusted as required by the rules promulgated by the SEC.

| <u>Name of Beneficial Owner</u> | <u>Beneficial Ownership(1)</u> | |
|--|--------------------------------|---------------------------------|
| | <u>Number of Common Shares</u> | <u>Percent of Common Shares</u> |
| 5% Stockholders | | |
| BlackRock, Inc. | 7,221,991(2) | 6.8% |
| Keith Murphy | 7,121,065(3) | 6.7% |
| Directors and Named Executive Officers | | |
| Keith Murphy | 7,121,065(3) | 6.7% |
| Eric David, MD, JD | 1,596,953(4) | 1.5% |
| Sharon Presnell, Ph.D. | 1,206,380(5) | 1.1% |
| Robert Baltera, Jr. | 312,506(6) | * |
| Jennifer Kinsbruner Bush, JD | 219,326(7) | * |
| James Glover | 184,000(8) | * |
| Tamar Howson | 170,500(9) | * |
| Craig Kussman | 129,250(10) | * |
| Kirk Malloy | 110,084(11) | * |
| Richard Maroun | 34,667(12) | * |
| Mark Kessel | 34,667(13) | * |
| Taylor Crouch | — (14) | * |
| All executive officers and directors as a group (13 persons) | 11,281,668(15) | 10.2% |

* 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.

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- (2) Based solely upon a Schedule 13G filed on January 30, 2017, by BlackRock, Inc., 55 East 52nd Street, New York, NY 10055. According to the Schedule 13G, BlackRock, Inc. has sole voting power with respect to 7,032,430 shares and sole dispositive power with respect to 7,221,991 shares.
- (3) 303,439 of these shares are held by Equity Trust Co., Custodian FBO Keith Murphy IRA. Includes options to purchase 1,244,892 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 13,000 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date. Does not include 586,562 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements. Does not include 143,000 additional restricted stock units subject to future vesting pursuant to the terms of restricted stock unit agreements. Mr. Murphy served as our President and Chief Executive Officer until his resignation in April 2017 and continues to serve as Chairman of the Board.
- (4) Includes options to purchase 918,750 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 15,000 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date. Does not include 151,250 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements. Does not include 212,500 additional restricted stock units subject to future vesting pursuant to the terms of restricted stock unit agreements.
- (5) Includes options to purchase 1,129,067 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 15,625 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date. Does not include 153,125 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements. Does not include 221,875 additional restricted stock units subject to future vesting pursuant to the terms of restricted stock unit agreements.
- (6) Includes options to purchase 166,500 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 7,500 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date.
- (7) Includes options to purchase 196,875 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 15,000 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date. Does not include 178,125 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements. Does not include 212,500 additional restricted stock units subject to future vesting pursuant to the terms of restricted stock unit agreements.
- (8) Includes options to purchase 166,500 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 7,500 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date.
- (9) Includes options to purchase 163,000 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 7,500 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date.
- (10) Includes options to purchase 82,500 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 46,750 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date. Does not include 247,500 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements. Does not include 305,250 additional restricted stock units subject to future vesting pursuant to the terms of restricted stock unit agreements.
- (11) Includes options to purchase 102,584 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 7,500 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date. Does not include 9,416 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements.
- (12) Includes options to purchase 24,667 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 8,125 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date.

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Does not include 12,333 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements. Does not include 5,000 additional restricted stock units subject to future vesting pursuant to the terms of restricted stock unit agreements.

- (13) Includes options to purchase 24,667 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 8,125 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date. Does not include 12,333 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements. Does not include 5,000 additional restricted stock units subject to future vesting pursuant to the terms of restricted stock unit agreements.
- (14) Mr. Crouch was appointed as our President and Chief Executive Officer and as a member of our Board of Directors on April 24, 2017. Does not include a stock option to purchase 2,088,212 shares of common stock vesting over a four-year period measured from his start date. Does not include a performance-based restricted stock unit award representing the right to receive up to 208,822 shares of common stock contingent upon the Company’s achievement of financial performance metrics.
- (15) Includes options to purchase 4,362,190 option shares currently exercisable or exercisable within 60 days of June 28, 2017. Also includes 164,594 restricted stock units (“RSUs”) vesting within 60 days of June 28, 2017. An RSU represents a conditional right to receive one share of our common stock at a specified future date. Does not include 3,616,668 additional option shares of common stock subject to future vesting pursuant to the terms of stock option agreements. Does not include 1,287,781 additional restricted stock units subject to future vesting pursuant to the terms of restricted stock unit agreements. Does not include a performance-based restricted stock unit award representing the right to receive up to 208,822 shares of common stock contingent upon the Company’s achievement of financial performance metrics.

Changes in Control

We are not aware of or a party to any 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 2017, 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. 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 of our executive officers for Fiscal 2017 (i.e., the period from April 1, 2016 to March 31, 2017). The Compensation Committee is responsible for setting the compensation of our executive officers.

This Compensation Discussion and Analysis summarizes the Compensation Committee's determination of how and why, in addition to what, compensation actions were taken for our Chief Executive Officer, our Chief Financial Officer and our three other most highly compensated executive officers serving as of the end of Fiscal 2017, including:

- Keith Murphy, our Chairman, and former Chief Executive Officer and President;
- Craig Kussman, our Chief Financial Officer;
- Sharon Presnell, Ph.D., our Chief Scientific Officer;
- Eric David, MD, JD, our Chief Strategy Officer and Executive Vice President of Pre-Clinical Development; and
- Jennifer Kinsbruner Bush, JD, our Senior Vice President, General Counsel, Corporate Secretary and Compliance Officer.

These five individuals are collectively referred to in this proxy statement as our "named executive officers". Taylor Crouch, our current Chief Executive Officer and President, did not join the Company until April 2017 and, as a result, did not receive any compensation from the Company during Fiscal 2017.

Recent "Say-on-Pay" Vote

At our 2016 Annual Meeting of Stockholders, we held a stockholder advisory vote to approve the compensation of our named executive officers, commonly referred to as a "say-on-pay" vote, for Fiscal 2016 (i.e., the period from April 1, 2015 to March 31, 2016). We received favorable consideration from our stockholders, with over 93% of stockholder votes cast in favor of the proposal. As a result, the Compensation Committee decided to retain our general compensation framework and approach in Fiscal 2017. The Compensation Committee will consider the outcome of the annual say-on-pay votes when making future compensation decisions.

Compensation Philosophy and Objectives

Our executive compensation program focuses on creating alignment between our stockholders and executive officers by including both performance and incentive-based compensation elements. Our compensation package also combines both short- and long-term components (cash and equity, respectively) at the levels the Compensation Committee determined to be appropriate to motivate, reward, and retain our executive officers. Our executive compensation program is designed to achieve the following key objectives:

- o Attract, retain, and reward talented executives and motivate them to contribute to the Company's success and to build long-term stockholder value;
- o Establish financial incentives for executives to achieve our key financial, operational, and strategic goals;
- o Enhance the relationship between executive pay and stockholder value by utilizing long-term equity incentives; and
- o Recognize and reward executives for superior performance.

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Use of Market Data and Benchmarking

The Compensation Committee endeavors to set compensation at competitive levels. In order to do this, the Compensation Committee compares our compensation packages with the packages offered by other companies that are similarly situated, and with which we compete for talent.

For Fiscal 2017, the Compensation Committee engaged F.W. Cook, an independent compensation consultant, as the Compensation Committee's advisor reporting directly to the chair of the Committee. The Compensation Committee determined that no conflict of interest exists that would preclude F.W. Cook from serving as an independent consultant to the Committee.

The Compensation Committee requested F.W. Cook to conduct a review and analysis of our executive compensation programs as compared against competitive benchmarks. This included a benchmarking analysis against prevailing market practices of a peer group of comparable companies approved by the Compensation Committee and broader industry trends and benchmarks. The analysis included a review of the "Total Direct Compensation" (which includes, salary, cash incentives, and equity awards) of our executive officers, and was based on an assessment of market trends covering available public information as well as proprietary information provided by F.W. Cook.

For Fiscal 2016, our Compensation Committee, with input from F.W. Cook, established a peer group of fourteen (14) biotechnology companies for purposes of benchmarking the compensation offered to our executive officers. The Compensation Committee selected companies for the peer group that it determined were comparable to the Company based on their size, industry, revenues, commercialization and product development status and market valuation. The Compensation Committee re-evaluated its compensation peer group for Fiscal 2017, and decided to remove Anacor Pharmaceuticals, Inc. and Novavax, Inc. because it determined that the market valuations for these companies had grown too high for direct comparison to the Company. The Compensation Committee, with input from F.W. Cook, replaced these companies with four commercial stage peer companies with market valuations less than four times the Company's market valuation at the time the decision was made (including, Luminex, Sequenom, Retrophin and Immunomedics). The Compensation Committee then used the compensation data from this revised peer group in setting executive compensation for Fiscal 2017.

The peer group for Fiscal 2017 included:

| | | |
|------------------------------|--------------------------------|---------------------------------|
| AcelRx Pharmaceuticals, Inc. | Luminex Corporation | Arrowhead Research Corporation |
| CytRx Corporation | Inovio Pharmaceuticals, Inc. | Insmid Incorporated |
| InVivo Therapeutics Corp. | Keryx Biopharmaceuticals, Inc. | Sequenom Inc. |
| Neuralstem, Inc. | Immunomedics | Peregrine Pharmaceuticals, Inc. |
| Regulus Therapeutics Inc. | Sangamo BioSciences, Inc. | Caladrius Bio |
| Retrophin Inc. | | |

Determination of Executive Compensation

In setting executive compensation for Fiscal 2017, the Compensation Committee generally targeted Total Direct Compensation at or near the median, accomplished through a blend of below-median cash compensation (on average, 35th percentile), and above-median equity awards (on average, 65th percentile). The data F.W. Cook provided for the revised peer group reflected that the Total Direct Compensation our executive officers (other than our Chief Executive Officer and our SVP General Counsel) received during Fiscal 2016, consisting of the sum of salary, performance-based cash bonus, and the grant date fair value of the stock option awards, was below the median of our peer group.

In addition to peer group data, the Compensation Committee considered relevant publicly available market data and surveys and the compensation reports it received from F.W. Cook. The Compensation Committee also

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reviewed and considered the compensation recommendations of our Chief Executive Officer (other than with respect to determining his own compensation), the Company's overall performance during Fiscal 2016, the Company's financial status and operating runway, each executive officer's responsibilities and contribution to the Company's achievement of the Fiscal 2016 corporate goals, and each executive officer's individual performance during Fiscal 2016. With respect to new hires, our Compensation Committee considered the executive officer's background and historical compensation in lieu of prior year performance in addition to benchmark data for the newly hired executive's position.

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 F.W. Cook during fiscal 2016 and 2017 to serve as its independent compensation consultant. F.W. Cook did not provide any other services to the Company during the periods it served as a consultant to the Compensation Committee.
- ***Performance and Incentive Based*** – A significant percentage of the Total Direct Compensation our executive officers can earn is performance and incentive based, thereby aligning the interests of our executive officers with our stockholders' interests.
- ***Stock Ownership Guidelines*** – The Compensation Committee established stock ownership guidelines to further align our executive officers' interests with those of our stockholders. The guidelines require each of 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. The Compensation Committee believes that the performance goals established for incentives do not encourage excessive risk-taking or have the potential to encourage behavior that may have a material adverse effect on the Company.
- ***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 demonstrate the Company's commitment to, and consistent execution of, an effective performance-oriented executive compensation program. Please see our "2017 Proxy Statement Summary" for an additional list of our compensation best practices.

Components of Executive Compensation

The framework established by the Compensation Committee, based on the data provided by F.W. Cook, for our executive compensation program consists of a base salary, performance-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 commercial, 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. In addition to benchmark data from our peer group, our Compensation Committee considers the Company's overall performance during the

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prior fiscal year, cash burn, the Company's financial status and operating profile, 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 as well as benchmark data for the new hire's position. 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 to utilize these policies going forward.

Although it generally targeted Total Direct Compensation at or near the median for our executive officers, the Compensation Committee set the cash compensation (which includes the base salaries) of our executive officers below-median for Fiscal 2017, allowing the Company to conserve its available cash resources to support its future operations and the implementation of its business plan.

The base salaries of our named executive officers for Fiscal 2017 as compared to Fiscal 2016 are set forth in the following table:

| Name and Title | Fiscal 2016 Base Salary | Fiscal 2017 Base Salary | Increase |
|--|------------------------------------|------------------------------------|-----------------|
| Keith Murphy, <i>former Chief Executive Officer and President</i> | \$ 500,000 | \$ 525,000 | 5.0%(3) |
| Craig Kussman, <i>Chief Financial Officer</i> | — | \$ 375,000 | — (1) |
| Sharon Presnell, Ph.D., <i>Chief Scientific Officer</i> | \$ 350,000 | \$ 361,000 | 3.1%(3) |
| Jennifer Kinsbruner Bush, JD, <i>SVP, General Counsel, Corporate Secretary and Compliance Officer</i> | \$ 325,000 | \$ 347,000 | 6.8%(2) |
| Eric David, MD, JD, <i>Chief Strategy Officer and Executive Vice President of Pre-Clinical Development</i> | \$ 325,000 | \$ 335,000 | 3.1%(3) |

(1) Mr. Kussman's employment began on August 22, 2016.

(2) Effective November 15, 2016 in connection with her promotion to the position of Senior Vice President, General Counsel. Prior to that, her Fiscal 2017 base salary was \$335,000, an increase of 3.1% from Fiscal 2016.

(3) Fiscal 2017 base salary increases were based on the factors described in the above section and were effective April 3, 2016.

Performance-Based Cash Incentive Awards. Our executive compensation program includes an annual performance-based cash incentive award, which provides our executive officers with an annual cash incentive opportunity as a percentage of their base salaries based upon the achievement of corporate and individual performance goals evaluated and approved by the Compensation Committee. For Fiscal 2017, 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 and the annual target bonus opportunities for each of the other named executive officers should be 35% of their respective base salaries. Each executive officer is eligible to receive up to 150% of his or her target bonus amount based on the achievement of "stretch" corporate and individual performance goals evaluated and approved by the Compensation Committee. If the minimum base performance level is met for a corporate or individual performance goal, the Compensation Committee has the discretion to assign zero percentage to that performance goal or a bonus percentage on an interpolated basis between zero and 100%. For performance between the target and stretch levels for an individual or corporate performance goal, the bonus percentage for that performance goal is determined on an interpolated basis. The Compensation Committee determined that 66 ²/₃% of each executive officer's annual performance-based cash incentive award should be based on corporate performance goals that apply equally to all executive officers and 33 ¹/₃% would be based on the executive officer's individual performance goals.

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For Fiscal 2017, our Compensation Committee established four corporate target and stretch performance goals, including: (i) total revenue recognized during Fiscal 2017, (ii) cash management, capital strategy, and certain financial metrics, (iii) commercial pipeline, and (iv) technology platform advancement. The revenue and financial goals were weighted at 35% and 25%, respectively, and the commercial pipeline and technology goals were weighted at 20% each. For Fiscal 2017, the Compensation Committee evaluated the Company's performance relative to each of these corporate performance goals. For performance goals with minimum base performance levels, the Compensation Committee assigned a zero percentage to those performance goals if the Company did not meet the minimum base performance level. For performance goals that did not have a minimum base performance level or for which the Company exceeded the minimum performance level, the Compensation Committee determined the bonus percentage on an interpolated basis between zero and 100%. Based on this evaluation, the Compensation Committee assigned the following values to the corporate performance goals: (i) 0% related to total revenue because the Company did not meet the minimum base performance level, (ii) 150% related to meeting both the base and stretch metrics for the cash management, capital strategy, and financial metrics goals, (iii) 150% related to meeting both the base and stretch metrics for commercial pipeline goals, and (iv) 150% related to achieving both the base and stretch metrics for the technology platform advancement goals.

Based on these scores and the relative weights applied to each goal, the Company achieved an overall aggregate of 97.5% of the corporate performance goals established by the Compensation Committee and described above. Our Compensation Committee expected that the objectives it set as the corporate performance goals at the target level of performance would be challenging and require effective execution by the Company's management team and that the objectives it set for the stretch level of performance would be difficult to achieve.

The Compensation Committee then considered the respective performance of each of the executive officers in achieving their individual target and stretch performance goals. Similar to the corporate performance goals, each executive officer is eligible to receive up to 150% of the target bonus amounts assigned to his or her respective individual performance goals based on his or her achievement of "stretch" performance goals. If the minimum base performance level is met for an individual performance goal, the Compensation Committee has the discretion to assign zero percentage to that performance goal or a bonus percentage on an interpolated basis between zero and 100%. For performance between the target and stretch levels for an individual performance goal, the bonus percentage for that performance goal is determined on an interpolated basis.

Mr. Murphy's individual performance goals included: (i) total revenue recognized for Fiscal 2017 (35%), (ii) cash management, capital strategy, and certain financial metrics (25%), (iii) advancing disease model validation (20%), and (iv) advancing the therapeutic liver tissue program (20%). The Compensation Committee determined Mr. Murphy achieved an aggregate of 65.5% of his individual performance goals.

Dr. Presnell's individual performance goals included: (i) supporting the Company's commercial efforts, contracts and collaborative arrangements (10%), (ii) achieving operational excellence in the Company's R&D function (15%), (iii) delivering next-generation technical solutions (10%), (iv) enhancing the Company's scientific presence and recognition (10%), (v) overseeing the Samsara business and product offerings (55%), and (vi) securing research grants and government funding. The Compensation Committee determined Dr. Presnell achieved an aggregate of 87.5% of her individual performance goals.

Dr. David's individual performance goals included: (i) advancing the Company's therapeutic liver tissue program (45%), (ii) developing a regulatory strategy for the Company's preclinical therapeutic tissue candidates (20%), (iii) increasing the Company's use of non-dilutive funding for therapeutic tissue development (15%), (iv) leading corporate strategic planning efforts (15%), and (v) building and sustaining the Company's culture and employee engagement (5%). The Compensation Committee determined Dr. David achieved an aggregate of 122.5% of his individual performance goals.

Ms. Bush's individual performance goals included: (i) legal support for strategic commercial, research and development and business development initiatives (20%), (ii) achievement of internal stakeholder requirements

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(15%), (iii) compliance assessment and improvement (15%), (iv) intellectual property strategy and training (20%), (v) improving corporate secretary functions (15%), and (vi) achieving government relations objectives (15%). The Compensation Committee determined Ms. Bush achieved an aggregate of 134.4% of her individual performance goals.

Mr. Kussman's individual performance goals included: (i) improving the Company's financial planning and financial operational review process (35%), (ii) achievement of cash management, capital strategy, and certain financial metrics (35%), and (iii) achievement of internal stakeholder requirements (30%). The Compensation Committee determined Mr. Kussman achieved an aggregate of 139.6% of his individual performance goals.

Our Compensation Committee expected that the objectives it approved for each executive officer's individual performance goals at the target level of performance could be achieved and that the objectives it approved for the stretch level of performance would be difficult to achieve.

Based on the achievement of the corporate and respective individual performance goals, our Compensation Committee awarded our executive officers cash bonuses ranging between 33.0% and 43.4% of their respective base salaries. In some instances, these bonus amounts were less than the target bonus award opportunities established for our executive officers for Fiscal 2017 because the Company did not achieve all of the corporate performance goals established by the Compensation Committee, and because the executives did not achieve all of their individual performance goals, which the Compensation Committee views as alignment of pay with performance. In several instances, these bonus amounts exceeded the target bonus award opportunities because although the Company did not fully achieve all of the corporate performance goals, the executives exceeded certain individual stretch goals set for them by the Compensation Committee. The Compensation Committee similarly views this as aligning pay with performance.

Specifically, the bonus payments for Fiscal 2017 were as follows:

| Name and Title | Percentage of Base Salary | Fiscal 2017 Bonus Award |
|--|----------------------------------|--------------------------------|
| Keith Murphy, <i>former Chief Executive Officer and President</i> | 43.4% | \$227,938 |
| Craig Kussman, <i>Chief Financial Officer(1)</i> | 39.0% | \$ 89,599 |
| Sharon Presnell, Ph.D., <i>Chief Scientific Officer</i> | 33.0% | \$118,980 |
| Eric David, MD, JD, <i>Chief Strategy Officer and Executive Vice President of Pre-Clinical Development</i> | 37.0% | \$124,090 |
| Jennifer Kinsbruner Bush, JD, <i>SVP, General Counsel, Corporate Secretary and Compliance Officer(2)</i> | 38.4% | \$128,682 |

(1) Mr. Kussman's bonus was pro-rated based on his start date on August 22, 2016.

(2) Ms. Bush's bonus was calculated on her original Fiscal 2017 base salary of \$335,000.

Equity-Based Incentive Awards. In addition to base salaries and annual performance-based cash incentives, the Compensation Committee provides long-term, equity-based incentive awards to our executive officers. For Fiscal 2017, these grants consisted of an equal value mix of stock options to purchase shares of our common stock ("stock options") and restricted stock units ("RSU's") where one RSU was determined to equal 2.0 options. Both the stock options and the RSUs vest over a four-year period; the stock options have an exercise price set at the fair market value of the Company's common stock on the date of grant. All vesting is subject to continued service to the Company. All option awards have a 10-year term. Additional information regarding the potential accelerated vesting applied to the equity awards held by each executive officer in the event his or her services to the Company are terminated in the event of a change in control of the Company (i.e., "double trigger" accelerated vesting) is discussed below under "Potential Payments upon Termination or Change in Control."

The Compensation Committee believes that the stock option and RSU awards help further the Company's compensation objectives by encouraging executives to remain with the Company through at least the vesting

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period for these awards. Stock option and RSU awards also align the interests of the Company's executives with the interests of its stockholders. In addition, because the option awards are granted at the fair market value of the Company's common stock on the date of grant, the option awards only have value to the executive officer if the value of the Company's common stock increases during the vesting period, which the Compensation Committee views as alignment of pay with performance. 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 determining the size and terms of the option and RSU awards, the Compensation Committee considered benchmark data from our peer group, publicly available market and survey data and the individual performance of the named executive officers. The Compensation Committee also considered the equity award levels recommended by the Company's Chief Executive Officer for the named executive officers (other than himself). Based on this analysis, the Compensation Committee approved equity awards as follows:

| Name | Incentive Stock Award (#) | Incentive Option Award (#) | Incentive Stock Award (\$)(2) | Incentive Option Award (\$)(3) | Total (\$) | Multiple of Fiscal 2017 Base Salary |
|------------------------------|---------------------------|----------------------------|-------------------------------|--------------------------------|--------------|-------------------------------------|
| Keith Murphy | 208,000 | 415,000 | \$ 829,920 | \$ 1,048,107 | \$ 1,878,027 | 3.6 |
| Sharon Presnell, Ph.D. | 50,000 | 100,000 | \$ 199,500 | \$ 252,556 | \$ 452,056 | 1.3 |
| Eric David, MD, JD | 50,000 | 100,000 | \$ 199,500 | \$ 252,556 | \$ 452,056 | 1.3 |
| Jennifer Kinsbruner Bush, JD | 50,000 | 100,000 | \$ 199,500 | \$ 252,556 | \$ 452,056 | 1.3 |
| Craig Kussman(1) | n/a | n/a | n/a | n/a | n/a | n/a |

- (1) Mr. Kussman's start date was on August 22, 2016.
- (2) Calculated based on the fair market value on the date of grant.
- (3) Calculated based on Black Scholes value computed on the date of grant.

The price of the Company's common stock as of the date of this proxy statement is currently lower than the exercise price of the stock option awards granted to our executive officers in Fiscal 2017. As a result, our executive officers have not realized any value from the stock option awards to date, and the grant date fair value reported in the Summary Compensation Table below does not accurately reflect the compensation actually delivered to our executive officers from the Fiscal 2017 stock option awards.

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. We provide a company matching contribution up to 3.5% of compensation for all participants in the 401(k) plan, including our executive officers, to help attract and retain top talent.
- **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 executive officers for their relocation expenses on their initial hire.

Severance Plan Participation Agreements

In November 2015 (the “Effective Date”), we entered into a Severance and Change in Control Plan Participation Agreement (the “Participation Agreement”) with each of our executive officers and certain key employees pursuant to our Severance and Change in Control Plan (the “Severance Plan”) approved by our Compensation Committee. The Severance Plan establishes the amount of severance payments and benefits available in the event of a (i) termination of employment by the Company for reasons other than Cause, death or Disability or by the participant for Good Reason and (ii) termination of employment by the Company for reasons other than Cause, death or Disability or by the participant for Good Reason within six months before or within 12 months after a Change in Control (as defined in the Severance Plan).

The Severance Plan establishes four tiers of employees: Tier 1, Tier 2, Tier 3 and Tier 4. In Fiscal 2017, the Company’s Tier 1 employees included Keith Murphy, our Chief Executive Officer, and Craig Kussman, the Company’s Chief Financial Officer. The Company’s Tier 2 employees included all non-Tier 1 members of the Company’s executive team, including Dr. Presnell, Dr. David, and Ms. Bush. The Company’s Tier 3 employees include all Senior Vice Presidents who are not members of the Company’s executive team. The Company’s Tier 4 employees include all Vice Presidents who are not members of the Company’s executive team.

Upon termination of employment by the Company for reasons other than Cause, death or Disability or by the participant for Good Reason, each (i) Tier 1 employee is eligible for a cash severance payment equal to 2.0 times the employee’s base salary, paid in a lump sum, plus a pro-rated target bonus for the fiscal year in which the termination occurs, Health Benefit Continuation (as defined in the Severance Plan) for up to 18 months, and Outplacement Assistance (as defined in the Severance Plan) for 18 months; (ii) Tier 2 employee is eligible for a cash severance payment equal to 1.0 times the employee’s base salary, paid in a lump sum, plus a pro-rated target bonus for the fiscal year in which the termination occurs, Health Benefit Continuation for up to 12 months, and Outplacement Assistance for 12 months. The Severance Plan does not provide for accelerated vesting of the equity awards held by the Tier 1 or Tier 2 employees in the event of their termination without Cause or their resignation for Good Reason.

Upon termination of employment by the Company for reasons other than Cause, death or Disability or by the participant for Good Reason within 6 months before or within 24 months after a Change in Control (as defined in the Severance Plan), each (i) Tier 1 employee is eligible for a cash severance payment equal to 2.0 times the employee’s base salary, paid in a lump sum, plus a pro-rated target bonus for the fiscal year in which the termination occurs, Health Benefit Continuation (as defined in the Severance Plan) for up to 18 months, and Outplacement Assistance (as defined in the Severance Plan) for 18 months; (ii) Tier 2 employee is eligible for a cash severance payment equal to 1.0 times the employee’s base salary, paid in a lump sum, plus a pro-rated target bonus for the fiscal year in which the termination occurs, Health Benefit Continuation for up to 12 months, and Outplacement Assistance for 12 months. In addition, each Tier 1-4 employee will receive full accelerated vesting of all outstanding equity grants and a one-year time period to exercise any stock options or stock appreciation rights which are not cashed out upon the Change in Control.

Payment of awards under the Severance Plan is conditioned upon the employee signing a general release of claims in favor of the Company and agreeing to abide by restrictive covenants including maintaining confidential information of the Company, non-solicitation and non-recruitment of Company employees for the Restricted Period (as defined below), non-solicitation of the Company’s customers or potential customers during the Restricted Period, non-employment by and limitations on investment in competitors of the Company for the Restricted Period, and no disparagement of the Company. The Restricted Period is twenty-four months for Tier 1 employees and twelve months for Tier 2 employees.

Further, pursuant to the terms of the Severance Plan Participation Agreements, any existing employment or severance agreement between the Company and the participant was immediately terminated and replaced with the provisions of the Severance Plan, subject to limited exceptions required to comply with the requirements of Internal Revenue Code Section 409A.

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“Cause” as defined in the Severance Plan means (i) the willful and continued failure of the Participant to perform substantially the Participant’s duties with Organovo (other than any such failure resulting from incapacity due to physical or mental illness), as determined by the Board with respect to any Tier 1 or Tier 2 Employee, and as determined by Organovo’s Chief Executive Officer with respect to Employees in Tiers 3-4 no earlier than thirty (30) days after a written demand for substantial performance is delivered to the Participant, which specifically identifies the manner in which Organovo believes that the Participant has willfully and continuously failed to perform substantially the Participant’s duties with Organovo (provided, however, that with respect to any Tier 1 or Tier 2 Employee, the failure to achieve individual or Company-based performance goals, budgets or targets shall not be deemed to be a failure of the Participant to perform his or her duties for purposes of this definition of Cause); (ii) the willful engaging by the Participant in illegal conduct or gross misconduct which is materially and demonstrably injurious to Organovo or Participant’s ability to perform his or her duties with Organovo; (iii) conviction (including a plea of guilty or *nolo contendere*) of a felony; (iv) a material violation of a material written policy of Organovo or any Affiliate, violation of which would be grounds for immediate dismissal under applicable Company policy; (v) failure to comply in any material respect with the Foreign Corrupt Practices Act, the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, the Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Truth in Negotiations Act, or any rules or regulations thereunder; (vi) a material breach of the restrictive covenants in Section 7(b) subject to the cure provisions provided in Section 7(b) of the Plan.

“Disability” means incapacity due to physical or mental illness which has rendered the Participant unable effectively to carry out his/her duties and obligations to Organovo or unable to participate effectively and actively in the management of Organovo for a period of ninety (90) consecutive days or for shorter periods aggregating to one-hundred twenty (120) days (whether or not consecutive) during any consecutive twelve (12) months.

“Good Reason” as defined in the Severance Plan means, means, without the Participant’s consent: (i) in the case of a Tier 1, 2, 3, or 4 Employee, a material diminution in the Participant’s Base Salary or Target Bonus Potential. This does not apply to a material diminution in the case of a Tier 1 or Tier 2 Employee resulting from a determination by both the CEO and the Compensation Committee that Organovo’s financial condition is such that a reduction in compensation is appropriate and the reduction is applied uniformly to all Company officers; (ii) a material diminution in the Participant’s authority, duties, or responsibilities, which shall include (A) with respect to any Participant who is a member of the Board, any failure of the Board to appoint or the stockholders of Organovo to elect such Participant as a member of the Board, or any removal of Participant from the Board for reasons other than Cause, (B) with respect to any Participant who is a Tier 1 or Tier 2 Employee, removal from Organovo’s Executive Team; (iii) with respect to any Participant who is a Tier 1, 2, 3, or 4 Employee, a material diminution in the authority, duties, or responsibilities of the supervisor to whom the Participant is required to report; (iv) any requirement that the Participant relocate, by more than fifty (50) miles, the principal location from which the Participant performs services for Organovo immediately prior to the termination of employment or the occurrence of the Change in Control. It shall be a condition precedent to the Participant’s right to terminate Participant’s employment for Good Reason (whether before or after a Change in Control) that (i) the Participant shall have first given Organovo written notice stating with reasonable specificity the breach on which such termination is premised within ninety (90) days after the Participant becomes aware or should have become aware of such breach, and (ii) if such breach is susceptible of cure or remedy, such breach has not been cured or remedied within thirty (30) days after receipt of such notice.

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.

Separation Agreements with Former Executive Officers

Keith Murphy, our Chairman of the Board, stepped down as the Company’s Chief Executive Officer and President, effective April 21, 2017 (the “Separation Date”). In connection with his transition, Mr. Murphy and the Company entered into a Consulting, Separation Agreement and Release (the “Separation Agreement”), dated April 7, 2017. In the Separation Agreement, Mr. Murphy agreed to a general release of claims and other restrictions and covenants in favor of the Company, including a standstill, confidentiality, non-compete, non-disparagement, and non-solicitation provisions. Mr. Murphy also agreed to continue to provide consulting services for twelve months to help ensure a successful transition and provide other services. Under the Separation Agreement, Mr. Murphy will receive \$65,625 per month for his consulting services. The Separation Agreement also provides that Mr. Murphy will continue to vest as a “service” provider in his previously-issued and outstanding equity awards during his consultancy. In addition, Mr. Murphy received a cash bonus for his services to the Company during Fiscal 2017 determined in the ordinary course by the Compensation Committee as discussed in “*Performance-Based Cash Incentive Awards*” above. This bonus was paid to Mr. Murphy at the same time the Company’s other executive officers received their bonus payments for Fiscal 2017. In addition, Mr. Murphy received a prorated cash bonus for his services to the Company as Chief Executive Officer during Fiscal 2018 in an amount equal to the target rate. The Company has also agreed to provide Mr. Murphy with 18 months of continued health benefits after the Separation Date. Finally, the Company has agreed to pay Mr. Murphy \$262,500 for his delivery of a bring-down release in favor of the Company covering the time period between the effective date of the Separation Agreement and the end of his consulting services.

Potential Payments upon Termination or Change of Control

As described in “Compensation Discussion and Analysis – Severance Plan Participation Agreements” we entered into Severance and Change in Control Plan Participation Agreements with our current named executive officers. The following table sets forth the amounts payable to each of our current named executive officers based on an assumed termination as of March 31, 2017 based upon certain designated events.

| Name | Cash Severance (\$)(3) | Health and Other Insurance Benefits (\$) | Stock Options (Unvested and Accelerated) (\$)(1) | Restricted Stock Units (Unvested and Accelerated) (\$)(2) | Fiscal Year 2017 Total (\$)(3) |
|---|---------------------------|---|---|--|-----------------------------------|
| Keith Murphy | | | | | |
| Termination for reasons other than Cause, death or Disability, or for Good Reason | 1,050,000 | 35,645 | — | — | 1,085,645 |
| Termination in connection with a Change of Control | 1,050,000 | 35,645 | — | 537,420 | 1,623,065 |
| Craig Kussman | | | | | |
| Termination for reasons other than Cause, death or Disability, or for Good Reason | 750,000 | 35,262 | — | — | 785,262 |
| Termination in connection with a Change of Control | 750,000 | 35,262 | — | 419,760 | 1,205,022 |
| Sharon Presnell, Ph.D. | | | | | |
| Termination for reasons other than Cause, death or Disability, or for Good Reason | 361,000 | 23,527 | — | — | 384,527 |
| Termination in connection with a Change of Control | 361,000 | 23,527 | — | 129,188 | 513,715 |
| Eric David, MD, JD | | | | | |
| Termination for reasons other than Cause, death or Disability, or for Good Reason | 335,000 | 23,482 | — | — | 358,482 |
| Termination in connection with a Change of Control | 335,000 | 23,482 | — | 129,188 | 487,670 |
| Jennifer Kinsbruner Bush, JD | | | | | |
| Termination for reasons other than Cause, death or Disability, or for Good Reason | 335,000 | 7,455 | — | — | 342,455 |
| Termination in connection with a Change of Control | 335,000 | 7,455 | — | 129,188 | 471,643 |

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- (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 NASDAQ Stock Market on the assumed termination date and the applicable exercise price of each option, by (b) the number of unvested and accelerated options. No value is included in the table above for the acceleration of stock option awards because the fair market value of our common stock on the NASDAQ Stock Market on March 31, 2017 was lower than each of the outstanding stock option awards held by our named executive officers.
 - (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 (i.e., March 31, 2017) on the NASDAQ Stock Market by the number of unvested and accelerated RSUs.
 - (3) Payable in a lump sum.

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:

Robert Baltera, Jr. (Chair)
Tamar Howson
James Glover
Richard Maroun

EXECUTIVE COMPENSATION

The following tables contain compensation information for our named executive officers during the fiscal year ended March 31, 2017 (“Fiscal 2017”), the fiscal year ended March 31, 2016 (“Fiscal 2016”), and the fiscal year ended March 31, 2015 (“Fiscal 2015”). The information included in these tables should be read in conjunction with the Compensation Discussion and Analysis disclosed above.

Summary Compensation Table

The following table summarizes the total compensation paid to or earned by each named executive officer for Fiscal 2017, Fiscal 2016 and Fiscal 2015.

| Name and Principal Position | Year or Period | Salary (\$) | Bonus (\$) | Stock Awards \$(4) | Option Awards \$(4) | Non-Equity Incentive Plan Compensation \$(5) | All Other Compensation \$(6) | Total (\$) |
|---|----------------|-------------|------------|--------------------|---------------------|--|------------------------------|-------------|
| Keith Murphy(1) Chairman, Chief Executive Officer, President | 2017 | \$524,039 | \$ — | \$829,920 | \$1,048,107 | \$ 227,938 | \$ 9,390 | \$2,639,394 |
| | 2016 | \$499,058 | \$ — | \$ — | \$1,529,378 | \$ 172,000 | \$ 9,083 | \$2,209,519 |
| | 2015 | \$469,897 | \$ — | \$ — | \$ 117,836 | \$ 246,696 | \$ 3,103 | \$ 837,532 |
| Sharon Presnell, Ph.D. Chief Scientific Officer | 2017 | \$360,577 | \$ — | \$199,500 | \$ 252,556 | \$ 118,980 | \$ — | \$ 931,613 |
| | 2016 | \$349,462 | \$ — | \$ — | \$ 418,711 | \$ 86,812 | \$ — | \$ 854,985 |
| | 2015 | \$334,715 | \$ — | \$ — | \$ — | \$ 115,587 | \$ — | \$ 450,302 |
| Eric David, MD, JD Chief Strategy Officer and Executive Vice President of Pre-Clinical Development | 2017 | \$334,615 | \$ — | \$199,500 | \$ 252,556 | \$ 124,090 | \$ — | \$ 910,761 |
| | 2016 | \$324,597 | \$ — | \$ — | \$ 418,711 | \$ 72,080 | \$ — | \$ 815,388 |
| | 2015 | \$315,092 | \$ — | \$ — | \$ — | \$ 115,427 | \$ — | \$ 430,519 |
| Jennifer Kinsbruner Bush, JD(2) SVP, General Counsel, Corporate Secretary and Compliance Officer | 2017 | \$334,615 | \$ — | \$199,500 | \$ 252,556 | \$ 128,682 | \$ 9,287 | \$ 924,640 |
| | 2016 | \$323,115 | \$20,000 | \$ — | \$ 402,607 | \$ 88,573 | \$ 8,624 | \$ 842,919 |
| | 2015 | \$141,231 | \$20,000 | \$ — | \$ 689,687 | \$ 44,488 | \$ 2,504 | \$ 897,910 |
| Craig Kussman(3) Chief Financial Officer | 2017 | \$216,346 | \$37,500 | \$529,320 | \$ 848,314 | \$ 89,599 | \$ 8,918 | \$1,729,997 |

- (1) Mr. Murphy currently serves as our Chairman of the Board, but stepped down from his position as our Chief Executive Officer and President in April 2017.
- (2) Includes a \$40,000 sign-on bonus to Ms. Bush following her joining the Company in 2014, with \$20,000 payable in Fiscal 2015 and \$20,000 payable in Fiscal 2016.
- (3) Mr. Kussman joined the Company as Chief Financial Officer effective August 22, 2016. Includes a \$75,000 sign-on bonus to Mr. Kussman, of which \$37,500 was paid on the four-month anniversary of his start date and \$37,500 was paid on the nine-month anniversary of his start date.
- (4) 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, 2017, as filed with the SEC.
- (5) Includes amounts paid under the Company’s Performance-Based Cash Incentive Award program based on the achievement of corporate and individual performance goals established and measured by the Compensation Committee.
- (6) These amounts represent the matching contributions to the 401(k) plan made for each named executive officer. The formula for determining the matching contributions is the same for named executive officers as it is for all salaried employees (and are subject to the same statutory maximum). Excludes payments made for the reimbursement of medical insurance premiums and life insurance available for all salaried employees. For more information regarding these benefits, see above under “Other Benefits.”

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Grants of Plan-Based Awards

The following table provides information on the grants of awards made to each named executive officer during Fiscal 2017.

| Name | Grant Date | Estimated future payouts under non-equity incentive plan awards | | | All other stock awards: | All other option awards: | Exercise or base price of option awards (\$/Sh) | Grant date fair value of stock and option awards (\$) |
|-------------------------------------|------------|---|-------------|--------------|--|---|---|---|
| | | Threshold (\$) | Target (\$) | Maximum (\$) | Number of shares of stock or units (#) | Number of securities underlying options (#) | | |
| Keith Murphy(6) | | | | | | | | |
| 2017 Annual Bonus(1) | — | — | \$262,500 | \$393,750 | — | — | — | — |
| 2017 Stock Options(2) | 7/11/2016 | — | — | — | — | 415,000 | \$ 3.99 | \$ 1,048,107 |
| 2017 RSUs(3) | 7/11/2016 | — | — | — | 208,000 | — | — | \$ 829,920 |
| Sharon Presnell | | | | | | | | |
| 2017 Annual Bonus(1) | — | — | \$126,350 | \$189,525 | — | — | — | — |
| 2017 Stock Options(2) | 7/11/2016 | — | — | — | — | 100,000 | \$ 3.99 | \$ 252,556 |
| 2017 RSUs(3) | 7/11/2016 | — | — | — | 50,000 | — | — | \$ 199,500 |
| Eric David, MD, JD | | | | | | | | |
| 2017 Annual Bonus(1) | — | — | \$117,250 | \$175,875 | — | — | — | — |
| 2017 Stock Options(2) | 7/11/2016 | — | — | — | — | 100,000 | \$ 3.99 | \$ 252,556 |
| 2017 RSUs(3) | 7/11/2016 | — | — | — | 50,000 | — | — | \$ 199,500 |
| Jennifer Kinsbruner Bush, JD | | | | | | | | |
| 2017 Annual Bonus(1) | — | — | \$117,250 | \$175,875 | — | — | — | — |
| 2017 Stock Options(2) | 7/11/2016 | — | — | — | — | 100,000 | \$ 3.99 | \$ 252,556 |
| 2017 RSUs(3) | 7/11/2016 | — | — | — | 50,000 | — | — | \$ 199,500 |
| Craig Kussman(7) | | | | | | | | |
| 2017 Annual Bonus(1) | — | — | \$ 80,334 | \$120,501 | — | — | — | — |
| 2017 Stock Options(4) | 8/23/2016 | — | — | — | — | 330,000 | \$ 4.01 | \$ 848,314 |
| 2017 RSUs(5) | 8/23/2016 | — | — | — | 132,000 | — | — | \$ 529,320 |

- (1) The amounts shown reflect payments under the Company's Performance-Based Cash Incentive Award program for Fiscal 2017, 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 2017. Please see "Executive Compensation – Compensation Discussion and Analysis" for more information regarding our annual performance-based cash incentive plan.
- (2) Represents stock option awards granted under the Company's 2012 Equity Incentive Plan. The stock option awards vest on a quarterly basis over sixteen quarters.
- (3) Represents RSU awards granted under the Company's 2012 Equity Incentive Plan. The RSUs vest on a quarterly basis over sixteen quarters.
- (4) Represents stock option awards granted under the Company's 2012 Equity Incentive Plan. 25% the stock option awards will vest on August 23, 2017, with the remaining stock option awards vesting in equal quarterly amounts over the following three years.
- (5) Represents RSU awards granted under the Company's 2012 Equity Incentive Plan. 25% the RSUs will vest and settle for shares of the Company's common stock on August 23, 2017, with the remaining RSUs vesting and settling for shares in equal quarterly amounts over the following three years.
- (6) Mr. Murphy currently serves as our Chairman of the Board, but stepped down from his position as our Chief Executive Officer and President in April 2017.
- (7) Mr. Kussman joined the Company as Chief Financial Officer, effective August 22, 2016.

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Outstanding Equity Awards at Fiscal Year End

The following table shows certain information regarding outstanding equity awards as of March 31, 2017 for our named executive officers.

| | Option Awards | | | | Stock Awards | |
|------------------------------|--|--|----------------------------|------------------------|--|--|
| | No. Of Securities Underlying Unexercised Options (#) Exercisable | No. Of Securities Underlying Unexercised Options (#) Unexercisable | Option Exercise Price (\$) | Option Expiration Date | No. Of Shares or Units of Stock That Have Not Vested (#) | Market Value Of Shares or Units of Stock That Have Not Vested (\$) |
| Keith Murphy(1) | 24,690(5) | — | \$ 4.585 | 2/13/2023 | | |
| | 215,000(6) | — | \$ 3.93 | 3/12/2023 | | |
| | 54,654(7) | — | \$ 5.60 | 8/28/2023 | | |
| | 27,105(8) | — | \$ 9.92 | 2/13/2024 | | |
| | 27,307(9) | — | \$ 9.86 | 2/19/2024 | | |
| | 412,500(10) | 137,500 | \$ 9.86 | 2/19/2024 | | |
| | 28,008(12) | — | \$ 6.34 | 2/13/2025 | | |
| | 203,438(13) | 261,562 | \$ 4.92 | 6/4/2025 | | |
| | 24,690(14) | — | \$ 2.04 | 2/13/2026 | | |
| | 77,813(15) | 337,187 | \$ 3.99 | 7/11/2026 | 169,000(16) | \$ 537,420 |
| Sharon Presnell, Ph.D. | 622,192(2) | — | \$ 0.08 | 10/14/2021 | | |
| | 175,000(3) | — | \$ 2.25 | 4/18/2022 | | |
| | 100,000(6) | — | \$ 3.93 | 3/12/2023 | | |
| | 116,250(10) | 38,750 | \$ 9.86 | 2/19/2024 | | |
| | 56,875(13) | 73,125 | \$ 4.92 | 6/4/2025 | | |
| | 18,750(15) | 81,250 | \$ 3.99 | 7/11/2026 | 40,625(16) | \$ 129,188 |
| Eric David, MD, JD | 600,000(4) | — | \$ 1.65 | 7/23/2022 | — | — |
| | 100,000(6) | — | \$ 3.93 | 3/12/2023 | | |
| | 105,000(10) | 35,000 | \$ 9.86 | 2/19/2024 | | |
| | 56,875(13) | 73,125 | \$ 4.92 | 6/4/2025 | | |
| | 18,750(15) | 81,250 | \$ 3.99 | 7/11/2026 | 40,625(16) | \$ 129,188 |
| Jennifer Kinsbruner Bush, JD | 93,750(11) | 56,250 | \$ 6.84 | 11/6/2024 | — | — |
| | 54,688(13) | 70,312 | \$ 4.92 | 6/4/2025 | | |
| | 18,750(15) | 81,250 | \$ 3.99 | 7/11/2026 | 40,625(16) | \$ 129,188 |
| Craig Kussman(1) | —(17) | 330,000 | \$ 4.01 | 8/23/2026 | 132,000(18) | \$ 419,760 |

- (1) Mr. Murphy currently serves as our Chairman of the Board, but stepped down from his position as our Chief Executive Officer and President in April 2017. Mr. Kussman joined the Company as Chief Financial Officer, effective August 22, 2016.
- (2) 25% of the stock options vested and became exercisable on May 2, 2012, with the remaining option shares vesting 25% annually over the following three years. As of March 31, 2017, Dr. Presnell had exercised her stock option to purchase 274,064 shares, with 622,192 options shares vested and exercisable.
- (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.
- (4) 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 following three years.
- (5) 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, 2013 with immediate vesting at an exercise price equal to the closing price of our common stock of \$4.585 on that date.
- (6) 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 following three years.

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- (7) 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.
- (8) 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.
- (9) 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.
- (10) 25% of the stock options vested and became exercisable on February 19, 2015, with the remaining option shares vesting in equal quarterly amounts over the following three years.
- (11) 25% of the stock options vested and became exercisable on September 2, 2015, with the remaining option shares vesting in equal quarterly amounts over the following three years.
- (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, 2015 with immediate vesting at an exercise price equal to the closing price of our common stock of \$6.34 on that date.
- (13) 25% of the stock options vested and became exercisable on June 4, 2016, with the remaining option shares vesting in equal quarterly amounts over the following three years.
- (14) 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, 2016 with immediate vesting at an exercise price equal to the closing price of our common stock of \$2.04 on that date.
- (15) The stock options began vesting and become exercisable equally over sixteen quarters for a total of 48 months beginning on May 15, 2016.
- (16) The RSUs began vesting and settle for shares of the Company's common stock equally over sixteen quarters for a total of 48 months beginning on May 15, 2016.
- (17) 25% of the stock options will vest and become exercisable on August 23, 2017, with the remaining option shares vesting in equal quarterly amounts over the next three years.
- (18) 25% of the RSUs will vest and settle for shares of the Company's common stock on August 23, 2017, with the remaining RSUs vesting and settling for shares in equal quarterly amounts over the next 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 2017 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(3) | — | — | 39,000 | 141,180 |
| Sharon Presnell, Ph.D. | — | — | 9,375 | 33,938 |
| Eric David, MD, JD | — | — | 9,375 | 33,938 |
| Jennifer Kinsbruner Bush, JD | — | — | 9,375 | 33,938 |
| Craig Kussman(3) | — | — | — | — |

- (1) The value realized on exercise 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 2017, times the closing price of our common stock on the NASDAQ Stock Market on the applicable vesting and settlement date.
- (3) Mr. Murphy currently serves as our Chairman of the Board, but stepped down from his position as our Chief Executive Officer and President in April 2017. Mr. Kussman joined the Company as Chief Financial Officer, in August 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, 2017, filed with the SEC on June 7, 2017 (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 NASDAQ Stock Market 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 Auditing Standard No. 1301, “Communicating with Audit Committees”. 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 each of the fiscal years ended March 31, 2017, 2016 and 2015 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 Maroun, J.D.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

During Fiscal 2017, there was no 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.

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 2018 ANNUAL MEETING

Stockholders interested in submitting a proposal for consideration at our 2018 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 2018 Annual Meeting is March 16, 2018. Accordingly, in order for a stockholder proposal to be considered for inclusion in our proxy materials for the 2018 Annual Meeting, any such stockholder proposal must be received by our Corporate Secretary on or before March 16, 2018, 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 16, 2018 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 2017 Annual Meeting (i.e., July 14, 2018) 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 2018 Annual Meeting, such a proposal must be received by the Company on or after April 30, 2018 but no later than May 30, 2018. If the date of the 2018 Annual Meeting is advanced by more than 30 days, or delayed by more than 60 days, from the anniversary date of the 2017 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

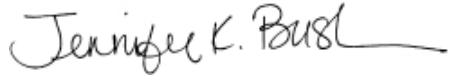
We have adopted “householding,” a procedure approved by the SEC under which stockholders who share an address will receive a single copy of the Annual Report, Proxy Statement and Notice. This procedure reduces printing costs and mailing fees, while also reducing the environmental impact of the distribution 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, 1 State Street Plaza, 30th 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, 2017 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

A handwritten signature in black ink that reads "Jennifer K. Bush". The signature is written in a cursive style with a long horizontal line extending to the right.

Jennifer Bush
Senior Vice President, General Counsel, Corporate Secretary & Compliance Officer

July 14, 2017



ANNUAL MEETING OF ORGANOVO HOLDINGS, INC.

Date: August 24, 2017
Time: 9:00 A.M. (local time)
Place: Green Acre Campus Pointe, 10300 Campus Point Drive, 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 and 3.

1: Election of three Class III Directors.

| | | |
|---------------------|---|--|
| | For Withheld | |
| Robert Baltera, Jr. | <input type="checkbox"/> <input type="checkbox"/> | |
| James Glover | <input type="checkbox"/> <input type="checkbox"/> | |
| Richard Maroun | <input type="checkbox"/> <input type="checkbox"/> | |

2: To ratify the appointment of Mayer Hoffman McCahn P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2018.

| | | | |
|--|--------------------------|--------------------------|--------------------------|
| | 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.

| | | | |
|--|--------------------------|--------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|

Note: Such other matters as may properly come before the annual meeting or any adjournment thereof.

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.



**Annual Meeting of Organovo Holdings, Inc.
to be held on Thursday, August 24, 2017
for Holders as of June 28, 2017**

This proxy is being solicited on behalf of the Board of Directors

VOTE BY: INTERNET TELEPHONE

Go To www.proxypush.com/ONVO
 • Cast your vote online.
 • View Meeting Documents.

OR

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

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.

The undersigned hereby appoints Jennifer Bush and Craig Kussman, 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 DIRECTOR IN ITEM 1 AND FOR THE PROPOSALS IN ITEMS 2 AND 3.

All votes must be received by 11:59 P.M., Eastern Time, August 23, 2017.

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

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

Directors Recommended
 ↓
 For
 For
 For

For

For

EVENT #

CLIENT #

Proxy — Organovo Holdings, Inc.
Annual Meeting of Stockholders
August 24, 2017, 9:00 a.m. (local time)
This Proxy is Solicited on Behalf of the Board of Directors

The undersigned appoints Jennifer Bush and Craig Kussman (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 Green Acre Campus Pointe, 10300 Campus Point Drive, San Diego, California 92121 on Thursday, August 24, 2017 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 three Class III 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, 2018;
3. To hold a non-binding advisory vote on the compensation of our named executive officers; and

The Board of Directors of the Company recommends a vote "FOR" the director nominees 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" the nominee 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 →