

**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 all boxes that apply):

- No fee required.
- Fee paid previously with preliminary materials.
- Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.



Organovo Holdings, Inc.
11555 Sorrento Valley Rd., Suite 100
San Diego, CA 92121

[____], 2023

Dear Stockholder:

You are cordially invited to attend this year's Annual Meeting of Stockholders of Organovo Holdings, Inc. on Thursday, September 14, 2023 at 9:00 a.m. (Pacific Daylight Time). **The Annual Meeting will be completely virtual. You may attend the virtual meeting, submit questions and vote your shares electronically during the meeting via live webcast by visiting www.virtualshareholdermeeting.com/ONVO2023.**

On or about [____], 2023, we will mail our proxy materials to our stockholders, comprised of the enclosed Annual Report, the Notice of Annual Meeting of Stockholders, the Proxy Statement, and proxy card.

The matters to be acted upon are described in the Notice of 2023 Annual Meeting of Stockholders and Proxy Statement. Following the formal business of the meeting, we will respond to questions from stockholders.

Whether or not you plan to virtually 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 you can also vote by mail by following the instructions on your proxy card. If you virtually attend the meeting, you will have the right to revoke your proxy and vote electronically during the meeting via the live webcast. 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.

On behalf of your Board of Directors, thank you for your continued support and interest.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Keith Murphy". The signature is fluid and cursive.

Keith Murphy
Executive Chairman

To Our Stockholders:

The 2023 Annual Meeting of Stockholders (the “Annual Meeting”) of Organovo Holdings, Inc. (“we,” “us,” “our,” “Organovo” or the “Company”) will be held on Thursday, September 14, 2023, at 9:00 a.m. (Pacific Daylight Time). **The Annual Meeting will be completely virtual. You may attend the meeting, submit questions and vote your shares electronically during the meeting via live webcast by visiting www.virtualshareholdermeeting.com/ONVO2023.** At the Annual Meeting, our stockholders will be asked:

1. To elect each of Keith Murphy and Adam Stern as a Class III director to hold office until the 2026 Annual Meeting of Stockholders and until his respective successor is 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, 2024;
3. To approve, on an advisory basis, the compensation of our named executive officers;
4. To approve the Organovo Holdings, Inc. 2023 Employee Stock Purchase Plan;
5. To approve an amendment to our Certificate of Incorporation, as amended, to reflect new Delaware law provisions regarding officer exculpation; and
6. To transact such other business as may properly be brought before the Annual Meeting or any adjournments or postponements thereof.

Our Board of Directors recommends a vote **FOR** each of the director nominees, and **FOR** proposals 2, 3, 4 and 5 listed above. Stockholders of record at the close of business on July 18, 2023 are entitled to notice of, and to vote on, all matters at the Annual Meeting and any reconvened meeting following any adjournments or postponements thereof. For 10 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 11555 Sorrento Valley Rd., Suite 100, San Diego, CA 92121.

All stockholders are invited to attend the virtual Annual Meeting. 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 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: This Notice of 2023 Annual Meeting of Stockholders, Proxy Statement and Annual Report are available at www.proxyvote.com.

By Order of the Board of Directors



Thomas Jurgensen
General Counsel and Corporate Secretary

[], 2023



2023 Proxy Statement Summary

To assist you in reviewing the Proxy Statement for the Organovo Holdings, Inc. (“we,” “us,” “our,” “Organovo” or the “Company”) 2023 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. **Regardless of the number of shares you own, your VOTE is very important.** Even if you presently plan to virtually attend the Annual Meeting, please 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 proxy card. If you do virtually attend the Annual Meeting and wish to vote electronically, you may withdraw your proxy at that time.

Annual Meeting of Stockholders

Date and Time:	September 14, 2023 at 9:00 a.m. (Pacific Daylight Time)
Place:	www.virtualshareholdermeeting.com/ONVO2023
Record Date:	July 18, 2023
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.
Virtual Meeting:	<p>The Annual Meeting will be conducted as a virtual meeting of stockholders by means of a live webcast. We believe that hosting a virtual meeting will enable greater stockholder attendance and participation from any location, improved communication and cost savings to our stockholders. You can virtually attend the Annual Meeting by visiting www.virtualshareholdermeeting.com/ONVO2023, where you will be able to vote your shares and submit your questions during the meeting via the internet. There will not be a physical meeting location and you will not be able to attend in person.</p> <p>The Annual Meeting starts at 9:00 a.m. (Pacific Daylight Time). We encourage you to access the meeting website prior to the start time to allow time for check-in. If you encounter any difficulties accessing the virtual meeting during the check-in or meeting time, please call the technical support number that will be posted on the virtual shareholder meeting login page.</p> <p>You do not need to register to virtually attend the Annual Meeting webcast. Follow the instructions on your proxy card to access the Annual Meeting.</p>

Proposals and Voting Recommendations

	Board Vote Recommendation	Page References (for more detail)
Proposals:		
(1) Election of two Class III directors each to hold office until the 2026 Annual Meeting of Stockholders and until his respective successor is elected and qualified.	FOR EACH NOMINEE	7 – 8
(2) Ratification of the appointment of Mayer Hoffman McCann P.C. as our independent registered public accounting firm for the fiscal year ending March 31, 2024.	FOR	9 – 10
(3) To approve, on an advisory and non-binding basis, the compensation of our named executive officers.	FOR	11
(4) To approve the Organovo Holdings, Inc. 2023 Employee Stock Purchase Plan.	FOR	12 – 18
(5) To approve an amendment to our Certificate of Incorporation, as amended, to reflect new Delaware law provisions regarding officer exculpation.	FOR	19

Current 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, serve our stockholders well and maintain our integrity in the marketplace. The following table summarizes some of the key elements of our current corporate governance framework:

Size of Board	6
Number of Independent Directors	4
Lead Independent Director	Yes
Review Board and Board Committee Independence and Qualifications	Annual
Board Self-Evaluation	Periodic
Hold Executive Sessions	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 Other Committee Members Qualify as Independent Directors	Yes
Plurality Plus Standard in Director Elections	Yes

Summary of Compensation Best Practices

Our Board of Directors (the “Board of Directors” or the “Board”) established a Compensation Committee of the Board (the “Compensation Committee”) comprised of three independent directors in accordance with the rules and regulations established by the Securities and Exchange Commission (the “SEC”) and the Nasdaq Capital 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. Since October 1, 2020, the Compensation Committee has retained, on an annual basis, Anderson Pay Advisors LLC (“Anderson”) as its independent compensation consultants, 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 periodically 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
Compensation Committee Members all qualify as “outside directors” and “non-employee directors”	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 Prior Year’s Advisory Vote regarding Named Executive Officer Compensation	Yes
Terms of Severance Plan Described to Stockholders	Yes
Equity Incentive Plans Do Not Contain an “Evergreen” Feature	Yes

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ORGANOVO HOLDINGS, INC.
11555 Sorrento Valley Rd., Suite 100,
San Diego, CA 92121

PROXY STATEMENT FOR THE 2023 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD SEPTEMBER 14, 2023

This Proxy Statement, along with a proxy card, is being mailed and made available to our stockholders on or about [___], 2023

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 2023 Annual Meeting of Stockholders (the “Annual Meeting”) to be held virtually on Thursday, September 14, 2023 at 9:00 a.m. (Pacific Daylight Time) via live webcast by visiting www.virtualshareholdermeeting.com/ONVO2023. References in this Proxy Statement to the “Company,” “Organovo,” “we,” “our” and “us” are to Organovo Holdings, Inc. and its subsidiaries.

Record Date

Holders of shares of our common stock, our only class of issued and outstanding voting securities, at the close of business on July 18, 2023 (the “Record Date”) are entitled to vote on the proposals presented at the Annual Meeting. As of July 18, 2023, we had [___] issued and outstanding shares of common stock.

Quorum

The presence, in person or by proxy, of the holders of at least [___] shares of common stock, representing one-third of the outstanding shares of common stock entitled to vote at the virtual 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.

Virtual Annual Meeting

The Annual Meeting will be conducted as a virtual meeting of stockholders by means of a live webcast. We believe that hosting a virtual meeting will enable greater stockholder attendance and participation from any location, improved communication and cost savings to our stockholders. You can virtually attend the Annual Meeting by visiting www.virtualshareholdermeeting.com/ONVO2023, where you will be able to vote your shares and submit your questions during the meeting via the internet. There will not be a physical meeting location and you will not be able to attend in person.

We invite you to virtually attend the Annual Meeting and request that you vote on the proposals described in this proxy statement. However, you do not need to attend the virtual meeting to vote your shares. Instead, you may vote by internet, by telephone or, if you requested and received paper copies of the proxy materials by mail, you may also vote by completing and mailing your proxy card.

The Annual Meeting starts at 9:00 a.m. (Pacific Daylight Time) on Thursday, September 14, 2023. We encourage you to access the meeting website prior to the start time to allow time for check-in. If you encounter any difficulties accessing the virtual meeting during the check-in or meeting time, please call the technical support number that will be posted on the virtual shareholder meeting login page.

You do not need to register to virtually attend the Annual Meeting webcast. Follow the instructions on your proxy card to access the Annual Meeting.

If you wish to submit a question the day of the Annual Meeting, you may log in to the virtual meeting platform at www.virtualshareholdermeeting.com/ONVO2023, type your question into the “Ask a Question” field and click “Submit.” Questions pertinent to meeting matters will be answered during the Annual Meeting, subject to time constraints. Questions regarding personal matters, including those related to employment, are not pertinent to annual meeting matters and, therefore, will not be answered.

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 shares represented by a proxy will be voted at the Annual Meeting, and where a stockholder specifies choice with respect to any matter to be acted upon, the shares will be voted in accordance with the specification so made. If a stockholder does not indicate a choice on the proxy card, the shares will be voted in favor of the election of each of the nominees for director contained in this Proxy Statement and in favor of Proposals 2, 3, 4 and 5.

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 virtual Annual Meeting, you will not be permitted to vote at the virtual meeting 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 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 five proposals scheduled to be voted on at the Annual Meeting:

1. To elect each of Keith Murphy and Adam Stern as a Class III director to hold office until the 2026 Annual Meeting of Stockholders and until his respective successor is 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, 2024;
3. To approve, on a non-binding advisory basis, the compensation of our named executive officers;
4. To approve the Organovo Holdings, Inc. 2023 Employee Stock Purchase Plan (the “ESPP”); and
5. To approve an amendment to our Certificate of Incorporation, as amended (“Certificate of Incorporation”), to reflect new Delaware law provisions regarding officer exculpation.

Our Board of Directors recommends a vote **FOR** each of the director nominees and **FOR** proposals 2, 3, 4 and 5 listed above.

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 our amended and restated bylaws (the “Bylaws”), the Class II 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. 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.

Because this is an uncontested election of directors (an election in which the number of persons properly nominated to serve as director does not exceed the number of directors to be elected), each of Mr. Murphy and Mr. Stern will be elected to the Board under the plurality voting standard if he receives any vote “FOR” his election. However, pursuant to the Company’s corporate governance guidelines, in an uncontested election, if a nominee receives a greater number of votes “withheld” than votes “for” such nominee’s election, then such nominee must tender such nominee’s resignation to the Board. The Nominating and Corporate Governance Committee will then determine whether the Board should accept or reject such director nominee’s resignation and will submit a recommendation to the Board for prompt consideration by the Board. The Board then will review the Nominating and Corporate Governance Committee’s recommendation and accept or reject the director nominee’s resignation within 100 days following certification of the stockholder vote for the Annual Meeting.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR AND SOLICITS PROXIES IN FAVOR OF THE ELECTION OF KEITH MURPHY AND ADAM STERN AS CLASS III DIRECTORS.

Proposal 2 – Ratification of Appointment of Independent Registered Public Accounting Firm

If a quorum is present, the affirmative vote of a majority of the votes cast at the Annual Meeting is required for ratification of the appointment of our independent registered public accounting firm. Abstentions will each 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.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE RATIFICATION OF THE APPOINTMENT OF MAYER HOFFMAN MCCANN P.C. AS THE COMPANY’S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING MARCH 31, 2024.

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

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.

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

Proposal 4 – Approval of the ESPP

If a quorum is present, the proposal to approve the ESPP 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.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE APPROVAL OF THE ESPP.

Proposal 5 – Approval of the Amendment to our Certificate of Incorporation to Reflect New Delaware Law Provisions Regarding Officer Exculpation

If a quorum is present, the proposal to approve the amendment to our Certificate of Incorporation to reflect new Delaware law provisions regarding officer exculpation requires the affirmative vote of a majority of the outstanding shares of our common stock. 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 be considered as votes cast against the proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE APPROVAL OF THE AMENDMENT TO OUR CERTIFICATE OF INCORPORATION TO REFLECT NEW DELAWARE LAW PROVISIONS REGARDING OFFICER EXCULPATION.

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 the proxy card at any time up until 11:59 p.m., Eastern Time, on September 13, 2023.
- **By Telephone:** by following the telephone voting instructions included on the proxy card at any time up until 11:59 p.m., Eastern Time, on September 13, 2023.
- **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 during the virtual Annual Meeting. Even if you plan to attend the virtual 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 virtual Annual Meeting.

If you hold shares through a bank or broker, please refer to your proxy card, Notice or other information forwarded by your bank or broker to see which voting options are available to you.

Proxies

Proxies are solicited by and on behalf of our Board and we will bear the entire cost of soliciting proxies, including the costs of preparing, assembling, printing and mailing this proxy statement, the proxy card and any additional soliciting materials furnished to stockholders.

All shares represented by a proxy will be voted, and where a stockholder specifies a choice with respect to any matter to be acted upon, the shares will be voted in accordance with the specification so made. If a stockholder does not indicate a choice on the proxy card, the shares will be voted: (i) in favor of the election of the two director nominees contained in this Proxy Statement, (ii) in favor of ratifying the appointment of Mayer Hoffman McCann P.C. as the Company's independent registered public accounting firm for the fiscal year ending March 31, 2024, (iii) in favor of the non-binding advisory vote on the compensation of our named executive officers, (iv) in favor of approving the ESPP, and (v) in favor of approving the amendment to our Certificate of Incorporation to reflect new Delaware law provisions regarding officer exculpation; 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 Proposal 2 to ratify the appointment of Mayer Hoffman McCann P.C. as our independent registered public accounting firm, but will not be permitted to vote your shares with respect to Proposal 1, the election of the Class III directors, Proposal 3, the non-binding advisory vote on the compensation of our named executive officers, Proposal 4, the approval of the ESPP or Proposal 5, the approval of an amendment to our Certificate of Incorporation to reflect new Delaware law provisions regarding officer exculpation, 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 at the virtual meeting unless you first receive materials necessary to access the Annual Meeting 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) by 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 Time) on September 13, 2023, (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 September 13, 2023), or (iv) by virtually attending the Annual Meeting and voting electronically by going to www.virtualshareholdermeeting.com/ONVO2023 and using your unique control number that was included in the Proxy Materials that you received in the mail. Attendance at the virtual 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 by referring to your proxy card or other information forwarded by your bank or broker.

Voting Results

We will announce preliminary voting results at the Annual Meeting. We will report final results in a Current Report on Form 8-K filed with the SEC within four business days after the Annual Meeting. If final voting results are not available to us in time to file a Form 8-K with the SEC within four business days after the Annual Meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

Interests of Officers and Directors in Any Matters to be Acted Upon at the Annual Meeting

Each of Mr. Murphy and Mr. Stern has an interest in Proposal 1, the election of Mr. Murphy and Mr. Stern as Class III directors, as each of them is currently a member of the Board that is up for reelection. Members of the Board and our executive officers do not have any interest in Proposal 2, the ratification of the appointment of Mayer Hoffman

McCann P.C. as our independent registered public accounting firm. Our named executive officers have an interest in Proposal 3, as the compensation for our named executive officers is subject to this vote. Members of the Board who are employees of ours and our executive officers will be eligible to receive awards under the ESPP, and they therefore have an interest in Proposal 4. Our executive officers have an interest in Proposal 5, as the proposed changes to our Certificate of Incorporation would exculpate our executive officers from liability in specific circumstances.

PROPOSAL 1: ELECTION OF DIRECTORS

General

Our Certificate of Incorporation and Bylaws provide for a classified Board consisting of three classes of directors with staggered three-year terms. The Board currently consists of six directors, having terms expiring at the respective annual meetings of stockholders listed below:

2023 Annual Meeting	2024 Annual Meeting	2025 Annual Meeting
Keith Murphy	Alison Tjosvold Milhous	Douglas Jay Cohen
Adam Stern	Vaidehi Joshi	David Gobel

Proposal to Elect Two Directors to Hold Office for Three Years until the 2026 Annual Meeting

The Board is recommending, and has nominated for election at the Annual Meeting, the following slate of two nominees, each to hold office for three years until the 2026 Annual Meeting of Stockholders and until his respective successor is duly elected and qualified.

Name	Age	Director Since	Principal Occupation	Experience/ Qualifications	Current Committee Membership	Independent?
Keith Murphy	51	2020	President and Chief Executive Officer of IR Medtek LLC	Industry, Strategy	- Science and Technology Committee	No
Adam Stern	59	2020	Chief Executive Officer of Methuselah Fund LLC and Methuselah Foundation	Industry, Corporate Finance	- Audit Committee - Compensation Committee	Yes

Each of the nominees is currently serving as a director and has indicated his willingness to serve if elected, but if either nominee 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.

Additional Information

For additional information about each nominee and each of the other directors serving on our Board, please see pages 29-31 in this 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. 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.

Because this is an uncontested election of directors (an election in which the number of persons properly nominated to serve as director does not exceed the number of directors to be elected), each of Mr. Murphy and Mr. Stern will be elected to the Board under the plurality voting standard if he receives any votes "FOR" their re-election. However, pursuant to the Company's corporate governance guidelines, in an uncontested election, if a nominee receives a greater number of votes "withheld" than votes "for" such nominee's election, then such nominee must tender such nominee's resignation to the Board. The Nominating and Corporate Governance Committee will then determine whether the Board should accept or reject such director nominee's resignation and will submit a recommendation to the Board for prompt consideration by the Board. The Board will then review the Nominating and Corporate Governance Committee's recommendation and accept or reject the director nominee's resignation within 100 days following certification of the stockholder vote for the Annual Meeting.

Board Recommendation

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR AND SOLICITS PROXIES IN FAVOR OF THE ELECTION OF EACH OF KEITH MURPHY AND ADAM STERN.

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

PROPOSAL 2: RATIFICATION OF APPOINTMENT 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. (“MHM”) as our independent registered public accounting firm for the fiscal year ending March 31, 2024. Representatives of MHM are expected to be present at the virtual Annual Meeting and will have the opportunity to make statements if they desire to do so and to respond to appropriate questions. MHM has served as our independent registered public accounting firm since February 8, 2011, 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 MHM, the Audit Committee of the Board (the “Audit Committee”) will reconsider its appointment. In addition, even if our stockholders ratify the appointment, 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 MHM as our independent registered public accounting firm for the fiscal year ending March 31, 2024. Substantially all MHM’s personnel, who work under the control of MHM shareholders, are employees of wholly-owned subsidiaries of CBIZ, Inc., which provides personnel and various services to MHM in an alternative practice structure.

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

The following table sets forth the fees for services provided and billed by MHM and its associated entity CBIZ MHM, LLC, relating to Fiscal 2023 and Fiscal 2022.

	Fiscal Year 2023	Fiscal Year 2022
Audit fees	\$ 471,194	\$ 310,120
Audit-related fees	—	—
Tax fees	26,670	24,764
All other fees	—	—
Total	<u>\$ 497,864</u>	<u>\$ 334,884</u>

Audit Fees: For the fiscal years ended March 31, 2023 and 2022, the aggregate audit fees billed by our independent registered public accounting firm 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, 2023 and 2022, there were no audit-related fees billed by our independent registered public accounting firm, other than the fees described above.

Tax Fees: For the fiscal years ended March 31, 2023 and 2022, the tax-related fees billed by an associated entity of our independent registered public accounting firm pertained to services related to tax return preparation and tax planning services.

All Other Fees: For the fiscal years ended March 31, 2023 and 2022, there were no fees billed by our independent registered public accounting firm for other services, other than the fees described above.

Policy on Audit Committee Pre-Approval of Audit and Permitted Non-Audit Services of Independent Registered Public Accounting Firm

The Audit Committee has determined that all services provided by MHM 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 the appointment 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 MHM, 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 registered public accounting 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 THE APPOINTMENT OF MAYER HOFFMAN MCCANN P.C. AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING MARCH 31, 2024.

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

The Board 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 “Executive Compensation” section 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 2023 Proxy Statement pursuant to the Securities and Exchange Commission’s compensation disclosure rules, including the Executive Compensation section.”

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.

PROPOSAL 4: APPROVAL OF THE ORGANOVO HOLDINGS, INC. 2023 EMPLOYEE STOCK PURCHASE PLAN

We are asking our stockholders to approve the Organovo Holdings, Inc. 2023 Employee Stock Purchase Plan (the “ESPP”) at the Annual Meeting.

Overview

The following is a summary description of the ESPP as adopted by our Board subject to the approval by our stockholders. The summary is not a complete statement of the ESPP and is qualified in its entirety by reference to the complete text of the ESPP, a copy of which is attached hereto as *Annex A*. Please refer to the ESPP for more complete and detailed information about the terms and conditions of the ESPP. In the event of a conflict between the information in this description and the terms of the ESPP, the ESPP shall control.

Background of the ESPP

On July 12, 2023, our Board adopted, subject to the approval by our stockholders, the ESPP. The ESPP will become effective on the date on which the ESPP is approved by our stockholders. If the ESPP is not approved by our stockholders, the ESPP will not become effective. We believe our ability to recruit and retain top talent will be adversely affected if the ESPP is not approved.

Summary of the ESPP

Purpose

The purpose of the ESPP is to secure the services of new employees, to retain the services of existing employees, and to provide incentives for such individuals to exert maximum efforts toward our success and that of our related corporations. The ESPP will include two components. One component is designed to allow eligible U.S. employees to purchase our common stock in a manner that may qualify for favorable tax treatment under Section 423 of the U.S. Internal Revenue Code of 1986, as amended (the “Code”), and accordingly, it will be construed in a manner that is consistent with the requirements of Section 423 of the Code (the “423 Component”). We intend (but make no undertaking or representation to maintain) the 423 Component to qualify as an employee stock purchase plan, as that term is defined in Section 423(b) of the Code. The other component will permit the grant of purchase rights that do not qualify for such favorable tax treatment (the “Non-423 Component”) in order to allow deviations necessary to permit participation by eligible employees who are foreign nationals or employed outside of the U.S. while complying with applicable foreign laws, and except as otherwise provided in the ESPP or determined by our Board, it will operate and be administered in the same manner as the 423 Component.

Share Reserve

Initially, the maximum number of shares of our common stock that may be issued under the ESPP will not exceed 45,000 shares of our common stock. For the avoidance of doubt, up to the maximum number of shares of our common stock reserved may be used to satisfy purchases of our common stock under the 423 Component and any remaining portion of such maximum number of shares may be used to satisfy the purchases of our common stock under the Non-423 Component. The closing price of a share of our common stock on July 18, 2023 was \$[____] per share.

If any purchase right granted under the ESPP terminates without having been exercised in full, the shares of our common stock not purchased under such purchase right will again become available for issuance under the ESPP.

The common stock purchasable under the ESPP will be shares of authorized but unissued or reacquired common stock, including shares repurchased by us on the open market.

Administration

Our Board will administer the ESPP. Our Board may delegate some or all of the administration of the ESPP to a committee or committees of our Board. All references to our Board in this proposal shall include a duly authorized

committee of our Board except where the context dictates otherwise. Further, to the extent not prohibited by applicable law, our Board may, from time to time, delegate some or all of its authority under the ESPP to one or more of our officers or other persons or groups of persons as it deems necessary, appropriate or advisable under conditions or limitations that it may set at or after the time of the delegation. Our Board will have the authority to determine how and when purchase rights are granted and the provisions of each offering; to designate, from time to time, which of our related corporations will be eligible to participate in the 423 Component or the Non-423 Component, or which related corporations will be eligible to participate in each separate offering; to construe and interpret the ESPP and purchase rights thereunder, and to establish, amend and revoke rules and regulations for the ESPP's administration; to settle all controversies regarding the ESPP and purchase rights granted thereunder; to amend, suspend or terminate the ESPP; to exercise such powers and to perform such acts as it deems necessary or expedient to promote the best interests of us and our related corporations and to carry out the intent of the ESPP to be treated as an employee stock purchase plan with respect to the 423 Component; and to adopt such rules, procedures and sub-plans as are necessary or appropriate to permit or facilitate participation in the ESPP by employees who are foreign nationals or employed or located outside the United States.

All determinations, interpretations and constructions made by our Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

Offerings

Our Board may grant or provide for the grant of purchase rights to eligible employees under an offering (consisting of one or more purchase periods) on an offering date or offering dates selected by our Board. Each offering will be in the form and will contain those terms and conditions as our Board deems appropriate, and, with respect to the 423 Component, will comply with the requirements of Section 423(b)(5) of the Code. The provisions of separate offerings do not need to be identical, but each offering will include the period during which the offering will be effective, which period will not exceed 27 months beginning with the offering date, and the substance of the applicable provisions contained in the ESPP.

If a participant has more than one purchase right outstanding under the ESPP, unless he or she otherwise indicates in forms delivered to us or a third party designee of ours: (i) each form will apply to all of his or her purchase rights under the ESPP, and (ii) a purchase right with a lower exercise price (or an earlier-granted purchase right, if different purchase rights have identical exercise prices) will be exercised to the fullest possible extent before a purchase right with a higher exercise price (or a later-granted purchase right if different purchase rights have identical exercise prices) will be exercised.

Our Board will have the discretion to structure an offering so that if the fair market value of a share of our common stock on the first trading day of a new purchase period within that offering is less than or equal to the fair market value of a share of our common stock on the first day of that offering, then (i) that offering will terminate immediately as of that first trading day, and (ii) the participants in such terminated offering will be automatically enrolled in a new offering beginning on the first trading day of such new purchase period.

Eligibility

Generally, purchase rights may only be granted to employees, including executive officers, employed by us (or by any of our affiliates or related corporations as designated by our Board) on the first day of an offering if such employee has been employed by us or by one of our designated affiliates or related corporations for such continuous period preceding such date as our Board may require, but in no event will the required period of continuous employment be equal to or greater than two years. Our Board may (unless prohibited by applicable law) require that employees have to satisfy one or both of the following service requirements with respect to the 423 Component: (i) being customarily employed by us, or any of our related corporations or affiliates, for more than 20 hours per week and more than five months per calendar year; or (ii) such other criteria as our Board may determine consistent with Section 423 of the Code with respect to the 423 Component. Our Board may provide that each person who, during the course of an offering, first becomes an eligible employee will, on the date or dates specified in the offering which coincides with the day on which the person becomes an eligible employee or which occurs thereafter, receive a purchase right under that offering, and the purchase right will thereafter be deemed to be part of the offering with substantially identical characteristics. No employee will be eligible for the grant of any purchase rights under the

ESPP if immediately after such rights are granted, such employee owns stock possessing five percent or more of the total combined voting power or value of all classes of our outstanding capital stock (or the stock of any related corporation) determined in accordance with the rules of Section 424(d) of the Code. As specified by Section 423(b)(8) of the Code, an employee may be granted purchase rights only if such purchase rights, together with any other rights granted under all employee stock purchase plans of ours or any of our related corporations, do not permit such employee's rights to purchase our stock or the stock of any of our related corporations to accrue at a rate which, when aggregated, exceeds \$25,000 (based on the fair market value per share of such common stock on the date that the purchase right is granted) for each calendar year such purchase rights are outstanding at any time. Our Board may also exclude from participation in the ESPP or any offering employees of ours, or of any of our related corporation, who are highly compensated employees, as within the meaning of Section 423(b)(4)(D) of the Code, or a subset of such highly compensated employees. As of July 18, 2023, there were approximately [] employees, including three executive officers, who would have been eligible to participate in the ESPP (non-employee directors and consultants are not eligible to participate in the ESPP).

Notwithstanding anything in the foregoing paragraph to the contrary, in the case of an offering under the Non-423 Component, an employee (or a group of employees) may be excluded from participation in the ESPP or an offering if our Board has determined, in its sole discretion, that participation of such employee is not advisable or practical for any reason.

Purchase Rights; Purchase Price

On the first day of each offering, each eligible employee, pursuant to an offering made under the ESPP, will be granted a purchase right to purchase up to that number of shares purchasable either with a percentage or with a maximum dollar amount, as designated by our Board, which will not exceed 15% of such employee's earnings (as defined by our Board) during each period that begins on the first day of the offering (or such later date as our Board determines for a particular offering) and ends on the date stated in the offering, which date will be no later than the end of the offering. Our Board will establish one or more purchase dates during an offering on which purchase rights granted for that offering will be exercised and shares of common stock will be purchased in accordance with such offering. Each eligible employee may purchase of up to 500 shares of our common stock in an offering (or such lesser number of shares determined by our Board prior to the start of the offering). Our Board may also specify (i) a maximum number of shares that may be purchased by any participant on any purchase date during an offering, (ii) a maximum aggregate number of shares that may be purchased by all participants in an offering and/or (iii) a maximum aggregate number of shares that may be purchased by all participants on any purchase date under an offering. If the aggregate number of shares issuable upon exercise of purchase rights granted under the offering would exceed any such maximum aggregate number, then, in the absence of any action by our Board otherwise, a pro rata allocation of the shares (rounded down to the nearest whole share) available, based on each participant's accumulated contributions, will be made in as nearly a uniform manner as will be practicable and equitable. The purchase price of shares acquired pursuant to purchase rights will not be less than the lesser of (i) 85% of the fair market value of a share of our common stock on the first day of an offering; or (ii) 85% of the fair market value of a share of our common stock on the date of purchase.

Participation; Withdrawal; Termination

An eligible employee may elect to participate in an offering and authorize payroll deductions as the means of making contributions by completing and delivering to us or our designee, within the time specified in the offering, an enrollment form provided by us or our designee. The enrollment form will specify the amount of contributions the maximum amount specified by our Board, but in any event not to exceed 15% of the eligible employee's base wages. Each participant's contributions will be credited to a bookkeeping account for the participant under the ESPP and will be deposited with our general funds except where applicable law requires that contributions be deposited with a third party. If permitted in the offering, a participant may begin such contributions with the first payroll occurring on or after the first day of the applicable offering (or, in the case of a payroll date that occurs after the end of the prior offering but before the first day of the next new offering, contributions from such payroll will be included in the new offering). If permitted in the offering, a participant may thereafter reduce (including to zero) or increase his or her contributions. If required under applicable law or if specifically provided in the offering, in addition to or instead of making contributions by payroll deductions, a participant may make contributions through payment by cash, check or wire transfer prior to a purchase date.

During an offering, a participant may cease making contributions and withdraw from the offering by delivering to us or our designee a withdrawal form provided by us. We may impose a deadline before a purchase date for withdrawing. Upon such withdrawal, such participant's purchase right in that offering will immediately terminate and we will distribute as soon as practicable to such participant all of his or her accumulated but unused contributions and such participant's purchase right in that offering shall then terminate. A participant's withdrawal from that offering will have no effect upon his or her eligibility to participate in any other offerings under the ESPP, but such participant will be required to deliver a new enrollment form to participate in subsequent offerings.

Unless otherwise required by applicable law, purchase rights granted pursuant to any offering under the ESPP will terminate immediately if the participant either (i) is no longer an employee for any reason or for no reason (subject to any post-employment participation period required by applicable law) or (ii) is otherwise no longer eligible to participate. We will distribute the individual's accumulated but unused contributions as soon as practicable to such individual.

Unless otherwise determined by our Board, a participant whose employment transfers or whose employment terminates with an immediate rehire (with no break in service) by or between us and one of our designated companies designated to participate in an offering (or between such designated companies) will not be treated as having terminated employment for purposes of participating in the ESPP or an offering. However, if a participant transfers from an offering under the 423 Component to an offering under the Non-423 Component, the exercise of the participant's purchase right will be qualified under the 423 Component only to the extent such exercise complies with Section 423 of the Code. If a participant transfers from an offering under the Non-423 Component to an offering under the 423 Component, the exercise of the purchase right will remain non-qualified under the Non-423 Component. Our Board may establish different and additional rules governing transfers between separate offerings within the 423 Component and between offerings under the 423 Component and offerings under the Non-423 Component. Unless otherwise specified in the offering or as required by applicable law, we will have no obligation to pay interest on contributions.

Purchase of Shares

On each purchase date, each participant's accumulated contributions will be applied to the purchase of shares, up to the maximum number of shares permitted by the ESPP and the applicable offering, at the purchase price specified in the offering. Unless otherwise provided in the offering, if any amount of accumulated contributions remains in a participant's account after the purchase of shares on the final purchase date of an offering, then such remaining amount will not roll over to the next offering and will instead be distributed in full to such participant after the final purchase date of such offering without interest (unless otherwise required by applicable law). No purchase rights may be exercised to any extent unless the shares of our common stock to be issued upon such exercise under the ESPP are covered by an effective registration statement pursuant to the Securities Act of 1933, as amended (the "Securities Act"), and the ESPP is in material compliance with all applicable U.S. federal and state, foreign and other securities, exchange control and other laws applicable to the ESPP. If on a purchase date the shares of our common stock are not so registered or the ESPP is not in such compliance, no purchase rights will be exercised on such purchase date, and the purchase date will be delayed until the shares of our common stock are subject to such an effective registration statement and the ESPP is in material compliance, except that the purchase date will in no event be more than 27 months from the first day of an offering. If, on the purchase date, as delayed to the maximum extent permissible, the shares of our common stock are not registered and the ESPP is not in material compliance with all applicable laws, as determined by us in our sole discretion, no purchase rights will be exercised and all accumulated but unused contributions will be distributed to the ESPP participants without interest (unless the payment of interest is otherwise required by applicable law).

A participant will not be deemed to be the holder of, or to have any of the rights of a holder with respect to, shares of our common stock subject to purchase rights unless and until the participant's shares of our common stock acquired upon exercise of purchase rights are recorded in our books (or the books of our transfer agent, Continental Stock Transfer and Trust Company).

Changes to Capital Structure

The ESPP provides that in the event of a change in our capital structure through actions such as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure, or similar transaction, our Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of shares subject to the ESPP; (ii) the class(es) and number of shares subject to, and purchase price applicable to, outstanding offerings and purchase rights; and (iii) the class(es) and number of shares that are subject to purchase limits under each ongoing offering. Our Board will make these adjustments, and its determination will be final, binding and conclusive.

Corporate Transactions

The ESPP provides that in the event of a corporate transaction (as defined below), any then-outstanding rights to purchase our common stock under the ESPP may be assumed, continued, or substituted for by any surviving or acquiring corporation (or its parent company). If the surviving or acquiring corporation (or its parent company) elects not to assume, continue, or substitute for such purchase rights, then (i) the participants' accumulated payroll contributions will be used to purchase shares of our common stock (rounded down to the nearest whole share) within 10 business days (or such other period specified by our Board) before such corporate transaction under the outstanding purchase rights, and such purchase rights will terminate immediately after such purchase, or (ii) our Board, in its discretion, may terminate outstanding offerings, cancel the outstanding purchase rights and refund the participants' accumulated contributions.

Under the ESPP, a "corporate transaction" is generally the consummation, in a single transaction or in a series of related transactions, of: (i) a sale or other disposition of all or substantially all, as determined by our Board, of the consolidated assets of us and our subsidiaries; (ii) a sale or other disposition of at least 50% of our outstanding securities; (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation; or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

Transferability

During a participant's lifetime, purchase rights will be exercisable only by a participant. Purchase rights are not transferable by a participant, except by will, by the laws of descent and distribution, or, if permitted by us, by a beneficiary designation.

Tax Withholding

Each participant must make arrangements, satisfactory to us and any applicable related corporation, to enable us or our related corporation to fulfill any withholding obligation for taxes arising out of or in relation to a participant's participation in the ESPP. In our sole discretion and subject to applicable law, such withholding obligation may be satisfied in whole or in part by (i) withholding from the participant's salary or any other cash payment due to the participant from us or any related corporation; (ii) withholding from the proceeds of the sale of shares of our common stock acquired under the ESPP, either through a voluntary sale or a mandatory sale arranged by us; or (iii) any other method deemed acceptable by our Board. We will not be required to issue any shares of our common stock under the ESPP until such obligations are satisfied.

Amendment, Suspension or Termination

Our Board will have the authority to amend, suspend or terminate the ESPP. Any benefits, privileges, entitlements and obligations under any outstanding purchase right granted before an amendment, suspension or termination of the ESPP will not be materially impaired by any such amendment, suspension or termination except (i) with the consent of the person to whom such purchase rights were granted, (ii) as necessary to facilitate compliance with any laws, listing requirements, or governmental regulations (including, without limitation, the provisions of Section 423 of the Code), or (iii) as necessary to obtain or maintain favorable tax, listing, or regulatory treatment. Except with respect to certain changes in our capital structure, stockholder approval is required for any amendment to the ESPP if such

approval is required by applicable law or listing requirements. No purchase rights may be granted under the ESPP while it is suspended or after it is terminated.

Certain U.S. Federal Income Tax Aspects of the ESPP

The following is a general summary under current law of the material federal income tax consequences to participants in the ESPP under U.S. law. This summary deals with the general tax principles that apply and is provided only for general information. Certain types of taxes, such as state and local income taxes, are not discussed. Tax laws are complex and subject to change and may vary depending on individual circumstances and from locality to locality. The summary does not discuss all aspects of income taxation that may be relevant to a participant in light of his or her personal investment circumstances. This summarized tax information is not tax advice.

The ESPP is intended to be an employee stock purchase plan within the meaning of Section 423 of the Code. The ESPP also authorizes the grant of rights to purchase shares that do not qualify under Section 423 pursuant to the non-423 component.

423 Component Offerings

Under an employee stock purchase plan that qualifies under Section 423 of the Code, no taxable income will be recognized by a participant, and no deductions will be allowable to us, upon either the grant or the exercise of the purchase rights. Taxable income will not be recognized until there is a sale or other disposition of the shares acquired under the ESPP or in the event that the participant should die while still owning the purchased shares. If the participant sells or otherwise disposes of the purchased shares (a) within two years after the start date of the offering in which the shares were acquired or (b) within one year after the purchase of the shares, then the participant generally will recognize ordinary income in the year of sale or disposition equal to the amount by which the fair market value of the shares on the purchase date exceeded the purchase price paid for those shares, and we will be entitled to an income tax deduction (subject to applicable limits under the Code), for the taxable year in which such disposition occurs equal in amount to such excess. The amount of this ordinary income will be added to the participant's basis in the shares, and any resulting gain or loss recognized upon the sale or disposition will be a capital gain or loss. If the shares have been held for more than one year since the date of purchase, the gain or loss will be long-term.

If the participant sells or disposes of the purchased shares more than two years after the start date of the offering in which the shares were acquired and more than one year after the purchase of the shares, then the participant generally will recognize ordinary income in the year of sale or disposition equal to the lesser of (a) the amount by which the fair market value of the shares on the sale or disposition date exceeded the purchase price paid for the shares, or (b) 15% of the fair market value of the shares on the start date of that offering. Any additional gain upon the disposition will be taxed as a long-term capital gain. Alternatively, if the fair market value of the shares on the date of the sale or disposition is less than the purchase price, there will be no ordinary income and any loss recognized will be a long-term capital loss. We will not be entitled to an income tax deduction with respect to such disposition.

Non-423 Component Offerings

If a purchase right is granted under the Non-423 component of the ESPP to a participant who is subject to U.S. federal income tax, the amount equal to the difference between the fair market value of the shares on the purchase date and the purchase price is taxed as ordinary income at the time of such purchase and such income is subject to tax withholding. The amount of such ordinary income will be added to the participant's basis in the shares, and any additional gain or resulting loss recognized on the disposition of the shares after such basis adjustment will be a capital gain or loss. A capital gain or loss will be long-term if the participant holds the shares for more than one year after the purchase date. We may be entitled to a deduction in the year of purchase equal to the amount of ordinary income realized by the participant.

The tax consequences for shares purchased pursuant to the ESPP by participants who are not subject to U.S. tax law may differ significantly from the U.S. federal income tax consequences described above.

New Plan Benefits

Participation in the ESPP is voluntary and dependent on each eligible employee's election to participate and the level of his or her payroll deductions. In addition, the number of shares that may be purchased under the ESPP is determined, in part, by the price of our common stock on the first day of each offering or the purchase date. Accordingly, the actual number of shares that may be purchased by any eligible individual in the future is not determinable.

Vote Required

If a quorum is present, the proposal to approve the ESPP 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 OF THE ORGANOVO HOLDINGS, INC. 2023 EMPLOYEE STOCK PURCHASE PLAN.

PROPOSAL 5: APPROVAL OF THE AMENDMENT TO OUR CERTIFICATE OF INCORPORATION TO REFLECT NEW DELAWARE LAW PROVISIONS REGARDING OFFICER EXCULPATION

The State of Delaware, which is our state of incorporation, recently enacted legislation that enables Delaware companies to limit the liability of certain of their officers in limited circumstances. In light of this update, we are proposing to amend our Certificate of Incorporation to add a provision exculpating certain of our officers from liability in specific circumstances, as permitted by Delaware law. The new Delaware legislation only permits, and our proposed amendment would only permit, exculpation for direct claims (as opposed to derivative claims made by stockholders on behalf of the corporation) and would not apply to breaches of the duty of loyalty, acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, or any transaction in which the officer derived an improper personal benefit. The rationale for so limiting the scope of liability is to strike a balance between stockholders' interest in accountability and their interest in our Company being able to attract and retain quality officers to work on its behalf. Our Board has approved and recommends that our stockholders approve an amendment to our Certificate of Incorporation to add a new paragraph to Article IX of our Certificate of Incorporation, which shall read in its entirety as follows:

“To the fullest extent permitted by the DGCL, as it presently exists or may hereafter be amended from time to time, an officer of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as an officer. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of officers, then the liability of an officer of the corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.” The description in this Proposal 5 of the proposed amendment to our Certificate of Incorporation is qualified in its entirety by, and should be read in conjunction with, the actual text of the change to our Certificate of Incorporation that would be implemented upon stockholder approval of this Proposal 5 that is marked in Article IX of our Certificate of Incorporation as set forth on *Annex B*.

Reasons for Approving the Amendment to our Certificate of Incorporation

The Nominating and Corporate Governance Committee believes that there is a need for directors and officers to remain free of the risk of financial ruin as a result of an unintentional misstep. Further, the Nominating and Corporate Governance Committee noted that the proposed provision would not negatively impact stockholder rights. Therefore, taking into account the narrow class and type of claims for which officers' liability would be exculpated, and the benefits the Nominating and Corporate Governance Committee believes would accrue to us and our stockholders in the form of an enhanced ability to attract and retain talented officers, the Nominating and Corporate Governance Committee recommended to our Board an amendment to our Certificate of Incorporation to provide such exculpation to the extent permitted by Delaware law. Based on this recommendation, our Board determined that it is in the best interests of the Company and our stockholders to amend our Certificate of Incorporation as described herein.

Vote Required

If a quorum is present, the proposal to approve the amendment to our Certificate of Incorporation to reflect new Delaware law provisions regarding officer exculpation requires the affirmative vote of the holders of a majority of our outstanding shares of stock on the Record Date. Abstentions and broker non-votes will each have the effect of a vote against the proposal. If this Proposal 5 is approved by our stockholders, we intend to promptly file the amendment to our Certificate of Incorporation with the changes to Article IX of our Certificate of Incorporation as set forth on *Annex B* with the Secretary of State of the State of Delaware.

Board Recommendation

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE APPROVAL OF THE AMENDMENT TO OUR CERTIFICATE OF INCORPORATION TO REFLECT NEW DELAWARE LAW PROVISIONS REGARDING OFFICER EXCULPATION.

BOARD OF DIRECTORS INFORMATION

Our Board of Directors is comprised of six directors. Our Board is divided into three classes, with one class standing for election each year for a three-year term. There are currently two Class I directors, two Class II directors, and two Class III directors. Our Class III directors, whose term will expire at our Annual Meeting, are Keith Murphy and Adam Stern.

The Board has nominated Keith Murphy and Adam Stern for election at the Annual Meeting as Class III directors, for a three-year term expiring at the 2026 Annual Meeting of Stockholders. Directors are elected by a plurality of the votes cast at the Annual Meeting. Because this is an uncontested election of directors, each of Mr. Murphy and Mr. Stern will be elected to the Board under the plurality voting standard if he receives any vote “FOR” his election. Each of Mr. Murphy and Mr. Stern have indicated his willingness to serve if elected, but if either should be unable or unwilling to stand for election, the shares represented by proxies may be voted for a substitute as the Board may designate, unless a contrary instruction is indicated in the proxy. However, pursuant to the Company’s corporate governance guidelines, in an uncontested election, if a nominee receives a greater number of votes “withheld” than votes “for” such nominee’s election, then such nominee must tender such nominee’s resignation to the Board. The Nominating and Corporate Governance Committee will then determine whether the Board should accept or reject such director nominee’s resignation and will submit a recommendation to the Board for prompt consideration by the Board. The Board will then review the Nominating and Corporate Governance Committee’s recommendation and accept or reject the director nominee’s resignation within 100 days following certification of the stockholder vote for the Annual Meeting.

In addition to the information set forth below regarding our directors and our director nominees 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 director nominees and our current directors:

Name	Age ⁽¹⁾	Position(s)	Director Class
Keith Murphy	51	Director and Executive Chairman	Class III
Adam Stern	59	Director	Class III
Douglas Jay Cohen	52	Lead Independent Director	Class II
David Gobel	70	Director	Class II
Alison Tjosvold Milhous	44	Director	Class I
Vaidehi Joshi	37	Director and Director of Discovery Biology	Class I

(1) As of July 28, 2023.

Board Diversity Matrix

The table below provides an enhanced disclosure regarding the diversity of our Board members and nominees. Each of the categories listed in the below table has the meaning as it is used in Nasdaq Rule 5605(f).

Board Diversity Matrix (As of July 18, 2023)

Board Size:				
Total Number of Directors	6			
	Female	Male	Non-Binary	Did Not Disclose Gender
Gender Identity:				
Directors	2	2	0	2
Number of Directors who Identify in any of the Categories Below:				
African American or Black	0	0	0	0
Alaskan Native or Native American	0	0	0	0
Asian	1	0	0	0
Hispanic or Latinx	0	0	0	0
Native Hawaiian or Pacific Islander	0	0	0	0
White	1	2	0	0
Two or More Races or Ethnicities	0	0	0	0
LGBTQ+	0	0	0	0
Did Not Disclose Demographic Background	0	0	0	2

Nominees as Class III Directors Continuing in Office Until the 2023 Annual Meeting of Stockholders

Keith Murphy, Director and Executive Chairman, re-joined our Board in July 2020 and has served as our Executive Chairman since September 2020. Mr. Murphy is the Chief Executive Officer and Chairman of Visient Biosciences, Inc. (“Visient”), a private company that he founded in 2017 that is focused on drug discovery and development utilizing 3D tissue technology and multi-omics (genomics, transcriptomics, metabolomics). Mr. Murphy previously served as the President and Chief Executive Officer of Organovo from February 2012 through April 2017, and as Chairman from February 2012 through August 2017. Mr. Murphy also previously served as President, Chief Executive Officer, and Chairman of Organovo, Inc., Organovo’s primary operating company prior to its going-public transaction, from August 2007 to February 2012. Prior to founding Organovo, Mr. Murphy served in various roles at Amgen, Inc. from August 1997 to July 2007 including as Global Operations Leader for the osteoporosis/bone cancer drug Prolia/Xgeva (denosumab). Prior to joining Amgen, Mr. Murphy 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. Mr. Murphy served as a member of the board of directors of Kintara Therapeutics, Inc. from August 2020 to February 2022, and served on its compensation committee and nominating and corporate governance committee. He holds a B.S. in Chemical Engineering from MIT and is an alumnus of the UCLA Anderson School of Management.

We believe 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.

Adam Stern, Director, re-joined our Board in July 2020. Mr. Stern is currently the Chief Executive Officer of SternAegis Ventures, the private equity group at Aegis Capital Corp. responsible for venture capital and private equity financing, and has been the Head of Private Equity Banking at Aegis Capital Corp., a full-service investment banking firm, since December 2012. Prior to SternAegis, Mr. Stern served as Senior Managing Director at Spencer Trask Ventures, Inc., a private equity and venture firm, from 1997 to 2012, where he managed the structured finance group focusing primarily on technology and life sciences companies. From 1989 to 1997, Mr. Stern was at Josephthal & Co., Inc., Members of the New York Stock Exchange, where he served as Head of Private Equity and Managing Director. He has been a FINRA licensed securities broker since 1987 and a Registered General Securities Principal since 1991. Mr. Stern previously served as a director of Organovo from February 2012 to June 2013. Mr. Stern is a current director at DarioHealth Corp. (Nasdaq: DRIO), Western Acquisition Ventures Corp. (Nasdaq: WAVS) and privately held Amplifica Holdings, Group, Inc., Aerami Therapeutics Holdings Inc. Mr. Stern is a former director of Adgero Biopharmaceuticals Holdings, Matinas BioPharma Holdings, Inc. (NYSE: MTNB), Hydrofarm Holdings Group Inc. (Nasdaq: HYFM), InVivo Therapeutics, Inc. (Nasdaq: NVIV) and PROLOR Biotech prior to its sale in 2013 to Opko Health, Inc. (Nasdaq: OPK). Mr. Stern graduated with a Bachelor of Arts degree from the University of South Florida in 1987.

We believe Mr. Stern's extensive experience in corporate finance, his expertise in the life sciences industries and his previous experience as a member of our Board qualify him to be a member of our Board of Directors.

Class I Directors Continuing in Office until the 2024 Annual Meeting of Stockholders

Alison Tjosvold Milhous, Director, has served on our Board since September 2020. She has 20 years of audit and technical accounting experience and is a certified public accountant. She is currently the Vice President of Accounting at Erasca, Inc., a clinical-stage precision oncology company. Prior to joining Erasca, she was an independent consultant assisting public and private companies with accounting and reporting needs primarily within the life sciences and technology industries. Ms. Milhous was previously an audit partner at Grant Thornton LLP from August 2015 through September 2019 and held various positions with increasing responsibility at Grant Thornton from June 2002 as an audit associate through July 2015 as an audit senior manager. She began her career in June 2000 at Arthur Andersen LLP. Ms. Milhous served on the membership committee of Athena San Diego, a professional women's leadership organization with a STEM focus, from August 2012 through September 2019 and was on the Pinnacle steering committee from September 2013 through April 2015. Ms. Milhous received a Bachelor of Science degree in Business Administration with a dual concentration in Accounting and Finance from California State Polytechnic University, San Luis Obispo.

We believe Ms. Milhous' extensive financial and accounting experience and her experience providing audit and consulting services to life sciences companies qualify her to serve as a member of our Board.

Vaidehi Joshi, Director, has served on our Board since March 2022 and as our Director of Discovery Biology since April 2022. Since November 2020, Ms. Joshi has served as Director of Discovery Biology at Viscient Biosciences, Inc., where she leads bioprinting as well as medicinal chemistry efforts for the drug discovery program for NASH and the pulmonary 3D model development program. She served in previous roles at Viscient Biosciences, Inc. between October 2019 to November 2020. Ms. Joshi was previously employed at Organovo, Inc., from March 2012 through August 2019, working her way up from Research Associate to Scientist II. Ms. Joshi has over a decade of experience in early-stage biotech companies developing unique therapeutic solutions and cutting-edge research products and cell-based therapies. In 2010, Ms. Joshi completed her master's in biomedical engineering from University of California Los Angeles, with a specialization in Tissue Engineering and Biomaterials.

We believe Ms. Joshi's extensive scientific background, previous experience in the biotechnology field, and her educational experience qualify her to serve as a member of our Board.

Class II Directors Continuing in Office Until the 2025 Annual Meeting of Stockholders

Douglas Jay Cohen, Lead Independent Director, has served on our Board since September 2020 and has served as our Lead Independent Director since September 2022. He has served as president and Chief Executive Officer of IR Medtek LLC since January 2019, a medical device company developing a non-invasive probe for cancer detection by primary care physicians using a technology licensed from the Ohio State University. Prior to IR Medtek, Mr. Cohen served as President and Chief Executive Officer of Beacon Street Innovations, an advanced technology printing company from September 2016 to present. From January 1994 to September 2016, Mr. Cohen served as Vice President of Operations and Engineering at Screen Machine Industries, an industrial and construction heavy equipment manufacturer. As an active investor in startup companies, Mr. Cohen has invested in more than 20 biotech startups in the past 10 years, including investing in Organovo in 2013 and maintaining a position in the company ever since. Mr. Cohen received a B.S. from the Massachusetts Institute of Technology.

We believe Mr. Cohen's experience in the life sciences industry, his experience in managing emerging growth companies and his experience in developing business strategies qualifies him to serve as a member of our Board.

David Gobel, Director, has served on our Board since September 2020. He has served as Chief Executive Officer of Methuselah Fund LLC since December 2016 and as Chief Executive Officer of Methuselah Foundation since September 2001, promoting increasing the healthy human lifespan by various means including: performance prizes, targeted grant making, education, and the creation/funding of biotech startups. Mr. Gobel became Chief Venture Strategist at Transportation Security Administration from January 2009 until March 2013, where he was responsible for strategic planning, innovation management and creation of a novel Venture Capital capability for TSA and then Department of Homeland Security by partnering with In-Q-Tel. Mr. Gobel was a member of the board of Volumetric Biotechnologies, a company that focuses on the development of bioholographic human tissue printing, from April 2018 to January 2020. Since July 2018, Mr. Gobel served as member of the board for Turn Bio, and since May 2020 as chairman of the board of Turn Bio. Mr. Gobel served as a board member of Leucadia Therapeutics from October 2015 to August 2022, and as an independent founding board member of Oisin Therapeutics since December 2014.

We believe Mr. Gobel's previous services as chief executive officer for other biotechnology companies, his experience and expertise with human tissue printing companies and his extensive board experience qualify him to serve as a member of our Board.

No Family Relationships

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

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 (as applicable), form the basis for our corporate governance framework. As discussed below, our Board has established four standing committees to assist it in fulfilling its responsibilities to the Company and its stockholders: the Audit Committee, the Compensation Committee, the Nominating and Corporate Governance Committee of the Board (the “Nominating and Corporate Governance Committee”) and the Science and Technology Committee of the Board (the “Science and Technology Committee”). The references to our website address below do not constitute incorporation by reference of the information contained at or available on our website.

Corporate Governance Guidelines

Our corporate governance guidelines (the “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 periodically 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.

Code of Business Conduct

We have adopted the Organovo Holdings, Inc. Code of Business Conduct (the “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;
- Conducting research activities with honesty, objectivity, transparency and accountability;
- 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. The full text of our Code of Business Conduct is available on our website at www.organovo.com.

Board Independence

Our shares of common stock are listed for trading on the Nasdaq Capital 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 Committee and the Compensation Committee. Our Board considers a director “independent” when the director is not an officer or employee of the Company or its subsidiaries, does not have any relationship which would, or could reasonably appear to, materially interfere with the independent judgment of such director, and the director otherwise meets the independence requirements under the listing standards of the Nasdaq Capital 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 the following four of our six current directors qualify as “independent” directors: Douglas Jay Cohen, David Gobel, Alison Tjosvold Milhous and Adam Stern. Keith Murphy and Vaidehi Joshi do not qualify as an independent director. Mr. Murphy currently serves as our Executive Chairman and as Chief Executive Officer of Viscient, which has made payments to the Company in sufficient amounts to qualify as related party transactions leading to director non-independence. Ms. Joshi is currently our Director of Discovery Biology.

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, we do not have a Chief Executive Officer. Mr. Murphy serves as the Executive Chairman of the Board and Mr. Thomas Hess serves as our President and Chief Financial Officer. Our Board has determined that this structure is in the best interests of the Company and its stockholders at this time.

Our Board believes that having Mr. Murphy serve as Executive Chairman is beneficial because he is the director who is most familiar with our business and industry, possesses detailed and in-depth knowledge of the issues, opportunities and challenges facing us and is therefore best positioned to ensure that the Board’s time and attention are focused on the most critical matters. Our independent directors bring experience, oversight and expertise from outside the Company and industry, while Mr. Murphy, as Executive Chairman, brings Company-specific experience and expertise. The Board believes that its current structure also facilitates information flow between management and the Board, which is essential to effective governance.

Effective September 15, 2022, our Board appointed Mr. Cohen as our lead independent director (the “Lead Independent Director”). The Lead Independent Director ensures that (i) our Board operates independently of management, (ii) our independent directors continue to provide effective oversight of our management and key issues related to strategy, risk and integrity, and (iii) our directors and stockholders have an independent leadership contact.

As the Lead Independent Director, Mr. Cohen has the following duties and responsibilities:

- Calling and presiding over executive sessions of the independent directors to cover the agenda of review and feedback of non-independent director and management performance and any topics on which the non-independent Board members are conflicted;
- Advising our non-independent directors on behalf of our Board, as appropriate, of discussions and feedback from executive sessions;
- Serving as a liaison for relevant issues between the independent directors, our Executive Chairman, and senior management to report on or raise matters;
- Reviewing Board schedules and agendas in collaboration with our Executive Chairman while seeking input from the other Board members;

- Consulting with team members and providing alternative paths for awareness of company issues, and reporting any findings to independent board members during executive sessions;
- Advising on the selection of the Chairs of our Board committees;
- Being available for communication with stockholders, as appropriate; and
- Performing such other duties and responsibilities as may be delegated to the Lead Independent Director by our Board from time to time.

We currently believe that having a Lead Independent Director creates an environment that is more conducive to objective evaluation and oversight of management's performance, increasing management accountability and improving the ability of our Board to monitor whether management's actions are in the best interests of our Company and our stockholders.

Board Committees

Our Board has established an Audit Committee, a Compensation Committee, a Nominating and Corporate Governance Committee and a Science and Technology Committee. The following table provides membership information as of the date hereof.

	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee	Science and Technology Committee
Independent Director				
Adam Stern	Member	Member		
Douglas Jay Cohen	Member	Member	Chair	
David Gobel		Chair	Member	Member
Alison Tjosvold Milhous	Chair		Member	
Non-Independent Directors				
Keith Murphy				Member
Vaidehi Joshi				Chair

Compensation Committee. Our Compensation Committee currently consists of Mr. Gobel (Chair), Mr. Cohen and Mr. Stern. 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 each member of the Compensation Committee is an "independent director" under Nasdaq listing standards and the applicable rules and regulations of the SEC. In addition, the existing and planned future members of the Compensation Committee qualify as "non-employee directors" for purposes of Rule 16b-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The Compensation Committee may delegate authority to one or more members of the Compensation Committee or to one or more of our executives of the Company, and may form and delegate authority to one or more subcommittees and to one or more committees of executives of the Company, except that the Compensation Committee may not delegate authority to approve compensation for our Chief Executive Officer or our other Section 16 and other executive officers to any person or committee (other than to a subcommittee consisting exclusively of at least three members of the Compensation Committee). Our Compensation Committee has the authority to engage the services of compensation consultants, outside counsel, experts and other advisors as it deems appropriate to assist it in the performance of its functions. The Compensation Committee engaged the services of Anderson Pay Advisors, a compensation consulting firm, beginning on October 1, 2020, and renewed on an annual basis, as its independent compensation consultant, to assist it in evaluating our overall executive compensation program and practices. 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.

On July 29, 2021, our Compensation Committee established a sub-committee, the Equity Award Committee, and delegated to the Equity Award Committee the power and authority, separately but concurrently with the power and authority of our Compensation Committee, to grant discretionary equity awards under the Organovo Holdings, Inc. 2012 Equity Incentive Plan to our employees (other than executives and directors), consultants or advisors of our Company. On November 9, 2022, our Compensation Committee extended the Equity Award Committee's power and authority to include granting discretionary equity awards, with certain limitations, under the Organovo Holdings, Inc. 2022 Equity Incentive Plan. During Fiscal 2023, the Equity Award Committee exercised its authority to grant equity awards by written consent six times.

Audit Committee. Our Audit Committee currently consists of Ms. Milhous (Chair), Mr. Cohen and Mr. Stern. 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, is financially literate under Nasdaq listing standards, and at least one member has financial sophistication under Nasdaq listing standards. The Board has also determined that Ms. Milhous is an "audit committee financial expert" within the applicable definition of the SEC. The Audit Committee is governed by a written charter approved by the Board of Directors, a copy of which is available on our website at www.organovo.com.

Nominating and Corporate Governance Committee. Our Nominating and Corporate Governance Committee currently consists of Mr. Cohen (Chair), Mr. Gobel and Ms. Milhous. 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 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.

Science and Technology Committee. Our Science and Technology Committee currently consists of Ms. Joshi (Chair), Keith Murphy and David Gobel. The functions of the Science and Technology Committee include to periodically examine management's direction and investment in the Company's research and development and technology initiatives and strategy. The Science and Technology Committee functions as a broadly knowledgeable and objective group to consider and report to the Board on matters relating to the investment in our research and development and technology initiatives, which include reviewing, evaluating and advising the Board regarding the long-term strategic goals and objectives and quality and direction of our research and development and technology initiatives.

Board and Committee Attendance

During the fiscal year ended March 31, 2023, all directors attended 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 seven times and acted by written consent eleven times during the fiscal year ended March 31, 2023; the Audit Committee met four times and acted by written consent two times during the fiscal year ended March 31, 2023; the Compensation Committee met two times and acted by written consent three times during the fiscal year ended March 31, 2023; the Nominating and Corporate Governance Committee met two times and acted by written consent two times during the fiscal year ended March 31, 2023; and the Science and Technology Committee met one time during the fiscal year ended March 31, 2023.

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. At the 2022 Annual Meeting of Stockholders, all of our then serving directors were in attendance.

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, with our Executive Chairman in attendance. 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.
- 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 and Corporate Governance Committee is responsible for overseeing the Company's compliance with good corporate governance practices, including the requirements established by the SEC and the Nasdaq Capital 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. 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 directors are subject to stock ownership guidelines approved by the Board within five years of most recently 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 his base salary. All other executive officers that are full-time employees of the Company are required to hold a number of shares with a value equal to three times their base salary. Directors (other than the Chief Executive Officer or any executive officers) are required to beneficially hold a number of shares of the Company's common stock with a value equal to four times the annual cash retainer paid to them for service as a member of our Board. For purposes of the guidelines, the shares deemed held include, among others, shares held directly or in joint accounts with certain family members, vested stock options (based on a value determined under the guidelines) and unvested restricted

stock units or restricted stock awards subject to time-based vesting. Our guidelines were adopted in June of 2013 and revised in July of 2022. All of our current executive officers or directors commenced their most recent services with us within the last three years and therefore none of our current executive officers or directors are currently required to meet a threshold requirement under the guidelines as it has not yet been five years since any employee recently commenced employment or any director became a director.

Succession Planning

The Corporate Governance Guidelines provide for an annual 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 Nominating and Corporate Governance 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), 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 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 these Board membership criteria as a whole and seeks to achieve diversity of occupational and personal backgrounds on the Board. Our Board will be responsible for selecting candidates for election as directors based on the recommendation of the Nominating and Corporate Governance Committee.

Our Nominating and Corporate Governance Committee regularly assesses the appropriate size of our Board, and whether any vacancies on our Board are expected due to retirement or 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 more than 1.0% of our common stock for more than one year and who satisfies the notice, information and consent provisions set forth in our Bylaws and Rule 14a-19 of the Exchange Act ("Rule 14a-19"). 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 Bylaws and Rule 14a-19 of the Exchange Act ("Rule 14a-19"). For information concerning stockholder proposals, see "Stockholder Proposals for 2024 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, the Lead Independent Director or any other 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, the Lead Independent Director or any other individual director may send communications directly to the Company at 11555 Sorrento Valley Rd., Suite 100, San Diego, CA 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.

Plurality Plus Standard for Director Elections

Pursuant to the Company's corporate governance guidelines, in an uncontested election (an election in which the number of persons properly nominated to serve as director does not exceed the number of directors to be elected), if a nominee receives a greater number of votes "withheld" than votes "for" such nominee's election, then such nominee must tender such nominee's resignation to the Board. The Nominating and Corporate Governance Committee will then determine whether the Board should accept or reject such director nominee's resignation and will submit a recommendation to the Board for prompt consideration by the Board. The Board will then review the Nominating and Corporate Governance Committee's recommendation and accept or reject the director nominee's resignation within 100 days following certification of the stockholder vote for the stockholder meeting at which the election of directors was held where the nominee received a greater number of votes "withheld" than votes "for" such nominee's election.

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 directors are compensated based upon their respective levels of Board participation and responsibilities, including service on Board committees.

Our director compensation is overseen by the Compensation Committee, which makes recommendations to our Board on the appropriate structure for our director compensation program and the appropriate amount of compensation. Our Board is responsible for final approval of our director compensation program and the compensation paid to our directors.

In connection with establishing our director compensation for Fiscal 2023, the Compensation Committee retained Anderson as its independent compensation consultant. With the assistance of Anderson, the Board and Compensation Committee conducted a formal review of our director compensation and incentive programs relative to the same peer group used in benchmarking the compensation for our executive officers.

Fiscal 2023 Director Compensation Framework

In November 2022, our Board adopted an amended and restated director cash and equity compensation framework for Fiscal 2023 (the "New Director Compensation Framework"). The New Director Compensation Framework currently provides to both non-employee and employee directors annual cash retainers for Board service and for service as the chair or member of one of the standing Board committees. Our directors are not entitled to any Board meeting fees or Board committee meeting fees.

Annual Cash Retainers. For Fiscal 2023, each of our directors was eligible to receive an annual cash retainer of \$66,300 for Board membership.

In addition, each of our directors are eligible to receive the applicable annual retainers set forth below for serving as committee chairs and for service as a member of a Board committee, with total cash compensation for each director not to exceed \$105,000 per fiscal year:

Position	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee	Science and Technology Committee
Committee Chair	\$ 25,500	\$ 25,500	\$ 25,500	\$ 25,500
Committee Member (excluding Chair)	\$ 15,300	\$ 15,300	\$ 15,300	\$ 15,300

No additional meeting fees were paid to our directors for Fiscal 2023.

Equity Awards. In addition, in November 2022, each director received a restricted stock unit award with respect to 19,607 shares of common stock (a value of \$30,000), which will vest in full on the earlier of (i) November 10, 2022 or (ii) the date of our next annual meeting of the stockholders, subject to acceleration in the event of a change of control.

Reimbursement. Our 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 member of our Board for service as a director during Fiscal 2023:

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)(1)	Option Awards (\$)	All Other Compensation (\$)	Total (\$)
Douglas Jay Cohen	\$ 105,000	\$ 30,000	\$ —	\$ —	\$ 135,000
David Gobel	105,000	30,000	—	—	135,000
Alison Tjosvold Milhous	135,000 ⁽²⁾	30,000	—	—	165,000
Adam Stern	96,900	30,000	—	—	126,900
Keith Murphy	78,710	30,000	—	—	108,710 ⁽³⁾
Vaidehi Joshi	91,403	30,000	—	—	121,403

- (1) These amounts represent the grant date fair value of time-based restricted stock unit 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 5 – Stockholders’ Equity” of our notes to consolidated financial statements in the Annual Report on Form 10-K for the year ended March 31, 2023, as filed with the SEC on July 14, 2023.
- (2) Comprised of (i) \$105,000 for service on the Board and committees pursuant to the New Director Compensation Framework and (ii) \$30,000 for service on a special committee of the Board that was established to consider one or more potential transactions with certain third parties.
- (3) Comprised solely of the compensation received by Mr. Murphy for his service as a member of the Board. Mr. Murphy’s additional compensation for Fiscal 2023 is included in the section entitled “Summary Compensation Table” on page 50 of this Proxy Statement.

EXECUTIVE OFFICERS

The following persons are our executive officers as of the date of this Proxy Statement and hold the positions set forth opposite their names as of July 28, 2023:

Name	Age	Position
Keith Murphy	51	Executive Chairman
Thomas Hess	59	President and Chief Financial Officer
Jeffrey Miner	61	Chief Scientific Officer
Thomas Jurgensen	66	General Counsel and Corporate Secretary

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

Thomas Hess, President and Chief Financial Officer, joined us in October 2021. Mr. Hess is currently employed by Danforth Advisors, LLC (“Danforth”), a professional financial consulting services firm. He has over twenty years of experience and has been with Danforth since September 2021. Mr. Hess recently served as Chief Financial Officer and Senior Vice President of Finance of Genomind, Inc., until his retirement in May 2021. From September 2011 until its sale in April 2014, Mr. Hess served as Chief Financial Officer and Executive Vice President of Finance of The Keane Organization. Mr. Hess also previously served in various other capacities including, but not limited to, Chief Financial Officer and Senior Vice President of Yaupon Therapeutics, Inc.; Chief Financial Officer and Vice President, Finance of Adolor Corporation; Corporate Controller of Vicuron Pharmaceuticals, Inc.; and Senior Manager, Accounting and Audit of KPMG. Mr. Hess received his B.S. in accounting from The Pennsylvania State University and his MBA from Katz Graduate School of Business, University of Pittsburgh and is a Certified Public Accountant in the State of Pennsylvania. He currently serves on the Alumni Council of Penn State.

Jeffrey Miner, Chief Scientific Officer, joined us in September 2020. Dr. Miner has held management and executive leadership positions in pharmaceutical and life sciences companies for more than 20 years. He has extensive biotech and pharmaceutical experience spanning discovery, preclinical, translational and clinical development. He currently serves as co-founder and Chief Scientific Officer for Viscient, a position he has held since June 2017. Prior to co-founding Viscient, Dr. Miner was Executive Director of Biology at AstraZeneca from January 2013 to January 2017, and Senior Director of Ardea Biosciences, a member of the AstraZeneca group, from January 2008 to January 2013. From 1993 to December 2007, he held positions of increasing responsibility, including Head of Molecular and Cellular Biology, at Ligand Pharmaceuticals. Dr. Miner has also been a Faculty Advisor and Molecular Biology Institute Associate at San Diego State University since 2005 and has served as a Board Member of the Scientific Advisory Board for ARTA Bioscience since 2008. Dr. Miner completed a post-doctoral fellowship at the University of California San Francisco in 1993 on glucocorticoid receptor gene regulation in Keith Yamamoto’s laboratory. He received his Ph.D. in Microbiology in 1989 from Oregon State University conducting graduate research in Virology in Dennis Hruby’s laboratory and he received his B.S. degree in Biology from The College of Idaho in 1984. Dr. Miner has drug discovery experience in the Inflammation, Oncology, Endocrine, Hepatology and Cardiovascular therapeutic areas and his work has led to, or enhanced, the development of multiple marketed medicines. His target areas of expertise include Nuclear Receptors, Kinases and Transporters. He has published more than 70 peer-reviewed articles and book chapters and is an inventor on multiple patents.

Thomas Jurgensen, General Counsel and Corporate Secretary, joined us in September 2020. Mr. Jurgensen has more than 30 years of corporate, transactional and intellectual property legal experience and is licensed to practice in California, Colorado, Minnesota and before the United States Patent and Trademark Office. Prior to joining us, Mr. Jurgensen was in private practice with Optima Law Group, APC in San Diego, California, serving as its Managing Shareholder since he founded the firm in February 2011 until May 2021. Optima Law Group serves a diverse base of life science and technology clients with a focus on early stage and emerging companies and also has offices in Boulder, Colorado. He previously served as Managing Shareholder and President of Catalyst Law Group in San Diego, California, from December 2003 to December 2010. From January 2001 to December 2003, he practiced corporate and intellectual property law with the firm of Blanchard, Krasner and French in La Jolla, California, while also serving as the Acting General Counsel of Ligand Pharmaceuticals, Inc. Prior to that, Mr. Jurgensen served as Vice President and General Counsel for The Salk Institute for Biological Studies in La Jolla, California, from January 1999 to December 2000; Vice President, General Counsel and Corporate Secretary for Molecular

Biosystems, Inc. in San Diego, California, from February 1997 to November 1998; and Assistant General Counsel at Ligand Pharmaceuticals, Inc. in San Diego, California, from March 1993 to February 1997. Mr. Jurgensen also was an Intellectual Property Attorney at Minnesota Mining and Manufacturing (3M) in St. Paul, Minnesota, and an Associate Attorney with the law firm of Merchant and Gould, PA in Minneapolis, Minnesota. Mr. Jurgensen has been a founder of numerous technology companies including Allylix, Inc. He has served in a number of executive roles at both private and public companies, including as CEO, President, Vice President, General Counsel and Secretary, and has served and still serves on selected private company boards of directors. Mr. Jurgensen received a Bachelor of Science degree in Biology with a Chemistry minor from the University of Wisconsin River Falls in May 1981. He then received his Master of Science degree in Animal Ecology from Iowa State University in Ames, Iowa, in December 1985 and conducted research in southern Chile under grants from the National Science Foundation and the Organization of American States. He received his law degree from the University of Oregon School of Law in May 1989 and was awarded Order of the Coif and served as Managing Editor on the Journal of Environmental Law and Litigation.

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 July 18, 2023 (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, as applicable), 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., 11555 Sorrento Valley Rd., Suite 100, San Diego, CA 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 July 18, 2023. In cases of holders who are not directors, director nominees and named executive officers, Schedules 13G or 13D filed with the SEC, as applicable (and, consequently, ownership reflected here), often reflect holdings as of a date prior to July 18, 2023. 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 60 days of July 18, 2023. These shares, however, are not deemed outstanding for the purpose of computing the percentage ownership of any other person or entity.

Applicable percentages are based on [] shares of common stock outstanding as of July 18, 2023, as adjusted as required by the rules promulgated by the SEC. We have deemed shares of our common stock subject to stock options that are currently exercisable or exercisable within 60 days of July 18, 2023, or issuable pursuant to restricted stock units that are subject to vesting conditions expected to occur within 60 days of July 18, 2023, to be outstanding and to be beneficially owned by the person holding the stock option or restricted stock units for the purpose of computing the percentage ownership of that person. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person or entity.

Name of Beneficial Owner	Beneficial Ownership(1)	
	Number of Common Shares	Percent of Common Shares
5% Stockholders		
Sumitomo Mitsui Trust Holdings, Inc.	454,752 (2)	[]%
Directors and Named Executive Officers		
Keith Murphy	[] (3)	[]%
Jeffrey Miner	[] (4)	[]%
Douglas Jay Cohen	[] (5)	[]%
David Gobel	[] (6)	[]%
Alison Tjosvold Milhous	[] (6)	[]%
Adam Stern	[] (6)	[]%
Thomas Jurgensen	[] (4)	[]%
Vaidehi Joshi	[] (7)	[]%
All current executive officers and directors as a group (8 persons)	[] (8)	[]%

* Less than one percent.

- (1) Beneficial ownership of shares and percentage ownership are determined in accordance with the rules of the SEC. Unless otherwise indicated and subject to community property laws where applicable, the individuals named in the table above have sole voting and investment power with respect to all shares of our common stock shown as beneficially owned by them.
- (2) Sumitomo Mitsui Trust Holdings, Inc. ("Sumitomo") filed a Schedule 13G/A with the SEC on February 3, 2023, reporting that it had shared voting power with respect to 454,752 shares, shared dispositive power with respect to 454,752 shares and beneficial ownership of an aggregate of 454,752 shares in its capacity as a parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G) under the Exchange Act and as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J) under the Exchange Act. Sumitomo's Schedule 13G/A also reported that Nikko Asset Management Co., Ltd. ("NAM") had shared voting power with respect to 454,752 shares, shared dispositive power with respect to 454,752 shares and beneficial ownership of an aggregate of 454,752 shares in its capacity as an investment advisor in accordance with Rule 13d-1(b)(1)(ii)(E) under the Exchange Act, as a parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G) under the Exchange Act and as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J) under the Exchange Act. The securities being reported in the Schedule 13G/A filed by each of Sumitomo and NAM, as parent holding companies, are owned, or may be deemed to be beneficially owned, by their subsidiary Nikko Asset Management Americas, Inc. ("Nikko"), which is classified as an investment advisor in accordance with Rule 13d-1(b)(1)(ii)(E) under the Exchange Act. Sumitomo's address is 1-4-1 Marunouchi, Chyoda-ku, Tokyo 100-8233, Japan. NAM's address is Midtown Tower, 9-7-1 Akasaka, Minato-ku, Tokyo 107-6242, Japan.

Nikko filed a Schedule 13G/A with the SEC on February 10, 2023, reporting that it had shared voting power with respect to 371,410 shares, shared dispositive power with respect to 454,752 shares and beneficial ownership of an aggregate of 454,752 shares in its capacity as an investment advisor in accordance with Rule 13d-1(b)(1)(ii)(E) under the Exchange Act. Nikko's address is 605 Third Avenue, 38th Floor, New York, NY 10158.

- (3) Represents [] shares of common stock held by Mr. Murphy and [] shares subject to options that are immediately exercisable or exercisable within 60 days of July 18, 2023.
- (4) Represents shares subject to options that are immediately exercisable or exercisable within 60 days of July 18, 2023.
- (5) Represents [] shares of common stock held by Mr. Cohen, [] shares held by Mr. Cohen's children and [] shares subject to options that are immediately exercisable or exercisable within 60 days of July 18, 2023.
- (6) Represents [] shares of common stock held and [] shares subject to options that are immediately exercisable or exercisable within 60 days of July 18, 2023.
- (7) Represents [] shares of common stock held and [] shares subject to options that are immediately exercisable or exercisable within 60 days of July 18, 2023.
- (8) Comprised of shares included under "Directors and Named Executive Officers".

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires our officers and directors, and persons who own more than 10% of a registered class of our equity securities, to file reports of ownership and changes in ownership with the SEC. Officers, directors, and greater than 10% stockholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. Based solely upon a review of the copies of such forms and amendments thereto, we believe that, during Fiscal 2023, none of our officers, directors, and greater than 10% beneficial owners failed to file on a timely basis the reports required by Section 16(a), with the exception of a late Form 4 for each of Keith Murphy, Thomas Jurgensen, and Jeffrey Miner to report the grant of options that was due on September 2, 2022 but was not filed until October 20, 2022.

EXECUTIVE COMPENSATION

The following discussion is designed to provide our 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 2023 (i.e., the period from April 1, 2022 to March 31, 2023).

This discussion summarizes the Compensation Committee's determination of how and why, in addition to what, compensation actions were taken for our Principal Executive Officer and our two other most highly compensated executive officers serving as of the end of Fiscal 2023, as follows:

- Keith Murphy, our Executive Chairman and Principal Executive Officer;
- Thomas Jurgensen, our General Counsel and Corporate Secretary; and
- Jeffrey Miner, our Chief Scientific Officer.

These three individuals are collectively referred to in this Proxy Statement as our "named executive officers".

Recent "Say-on-Pay" Votes

Our recent stockholder advisory votes, commonly referred to as a "Say-on-Pay" vote, to approve the compensation of our named executive officers for Fiscal 2022 (i.e., the period from April 1, 2021 to March 31, 2022) was approved by our stockholders, with approximately 92% of stockholder votes cast in favor of the proposal.

Following our 2022 Annual Meeting, our Executive Chairman, General Counsel, and Chief Financial Officer initiated significant stockholder engagement efforts in the second half of Fiscal 2023 (i.e., April 1, 2022 to March 31, 2023) to establish continuous monitoring of how our investors vote, obtain their views on key corporate governance and disclosure matters and determine how best to respond to feedback each year going forward. Specifically, we reached out to our stockholders representing over 95% of our institutional stock holdings (or approximately 26% of our then outstanding shares) multiple times. None of the stockholders indicated a need or desire to engage with the Company to discuss or express any concerns.

Going forward, we plan to continue to:

- at least annually, reach out to institutional stockholders representing a majority of the shares held by our institutional stockholders; and
- invite them to engage and participate in calls to discuss our executive compensation programs, their feedback and questions and how we may best address them.

One or more members of executive management are expected to be active participants on all such calls, as will one or more members of our Compensation Committee. All such feedback will be shared with our Board.

In evaluating potential changes to our executive compensation programs' structure and disclosure, the Compensation Committee will closely examine, and aim to understand further, our stockholders' feedback, including any common themes from our stockholders' feedback. The Compensation Committee will also seek the advice of independent compensation consultants with respect to the design of our executive compensation program.

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:

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

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 peer companies that are similarly situated, and with which we compete for talent. Selection criteria includes:

- Industry, specifically biotechnology and medical research,
- Company focus, with an emphasis on technology platforms,
- Stage of leading drug candidate, with an emphasis on Phase II/III,
- Market capitalization, targeting less than \$100 million,
- Number of employees, targeting less than 50 employees, and
- Location, specifically nationwide.

For Fiscal 2023, the Compensation Committee engaged Anderson, an independent compensation consultant, as the Compensation Committee’s advisor reporting directly to the chair of the Compensation Committee. The Compensation Committee determined that no conflict of interest exists that would preclude Anderson from serving as an independent consultant to the Compensation Committee.

The Compensation Committee requested Anderson 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 Anderson.

For Fiscal 2023, based on recommendations from Anderson, our Compensation Committee determined that our peer group should be modified to better reflect our current market valuation as well as the growing importance of our therapeutics program to our overall business model. With input from Anderson, our Compensation Committee added a group of companies focused on technology platforms, with comparable size, revenues, market valuations, and stage of leading drug candidate. Our Compensation Committee also replaced some of the companies previously included in our peer group because their market valuations had grown too high for direct comparison to our Company, and/or their business focus had become less relevant for direct comparison to our Company. Our Compensation Committee then used the compensation data from this revised peer group in setting executive compensation for Fiscal 2023.

The peer group for Fiscal 2023 included:

Advaxis	Celsion Corporation	Onconova Therapeutics, Inc.
Allena Pharmaceuticals*	Cidara Therapeutics, Inc.	OncoSec Medical Incorporated
Aprea Therapeutics, Inc.	CytRx Corporation	Pulmatrix, Inc.
aTyr Pharma, Inc.	Evoke Pharma, Inc.	Regulus Therapeutics Inc.
Bellicum Pharmaceuticals, Inc.	Idera Pharmaceuticals, Inc.	Seelos Therapeutics, Inc.
Brickell Biotech, Inc.	NightHawk Biosciences, Inc.	Soligenix, Inc.
Capricor Therapeutics, Inc.	Ocuphire Pharma, Inc.	Synthetic Biologics, Inc.

* Indicates addition to peer group from Fiscal 2022.

Determination of Executive Compensation

In addition to peer group data, the Compensation Committee considered relevant publicly available market data and surveys and the compensation reports it received from Anderson. The Compensation Committee also reviewed and considered the compensation recommendations of our Executive Chairman, the Company's overall performance during Fiscal 2023, the Company's financial status and operating runway, each executive officer's responsibilities and contribution to the Company's achievement of the Fiscal 2023 corporate goals, and each executive officer's individual performance during Fiscal 2023. 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 Anderson during Fiscal 2023 to serve as its independent compensation consultant. Anderson 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*** – Approximately 40% 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.
- ***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.
- ***No Single Trigger Change in Control Vesting***- We do not provide for the acceleration of vesting solely upon the occurrence of a change in control in our equity awards for our directors and executive officers.
- ***No Excise Tax Gross Ups*** – We do not include excise tax gross ups for any change in control payments.
- ***Director and Executive Officer Stock Ownership Guidelines*** – We have adopted stock ownership guidelines that require each director and executive officer to accumulate and hold a specified value of our stock within five years of most recently starting employment with us or becoming a director.

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 “2023 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 Anderson, 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.

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 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 Executive Chairman 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.

For Fiscal 2023, the Compensation Committee approved an approximate 6% cost of living adjustment for our executive officers compared to Fiscal 2022, including Mr. Jurgensen and Dr. Miner.

Pursuant to the terms of our consulting agreement with Multi Dimensional Bio Insight LLC (“MDBI”), a biotechnology consulting firm through which we retain Mr. Murphy, MDBI has the right, on an annual basis, to increase hourly consultant rates by up to 4%. From January 1, 2021 to May 1, 2022, the hourly rate for Mr. Murphy’s services was \$375, which was increased to \$413 effective May 1, 2022 and remained the same throughout the remainder of Fiscal 2023. The cash amount paid to MDBI increased from \$430,073 for Fiscal 2022 to \$543,781 for Fiscal 2023, with approximately a 19% increase in Mr. Murphy’s hours for Fiscal 2023 as compared to Fiscal 2022.

The base salaries of our named executive officers for Fiscal 2023 as compared to Fiscal 2022 are set forth in the following table:

Name and Title	Fiscal 2023 Base Salary	Fiscal 2022 Base Salary
Keith Murphy, <i>Executive Chairman</i> ⁽¹⁾	\$ 543,781	\$ 430,073
Thomas Jurgensen, <i>General Counsel and Corporate Secretary</i>	381,262	360,000
Jeffrey Miner, <i>Chief Scientific Officer</i>	238,292	225,000

(1) Mr. Murphy was appointed our Executive Chairman on September 15, 2020. The Company retains Mr. Murphy through MDBI, a biotechnology consulting firm, pursuant to the terms of a consulting agreement, pursuant to which Company has agreed to pay MDBI \$375-390 per hour of services provided by Mr. Murphy, with an annual increase in rates by up to 4%. The amounts reported under “Fiscal 2023 Base Salary” and “Fiscal 2022 Base Salary” are comprised of the actual amounts paid to MDBI for its consulting services. Mr. Murphy did not directly receive a base salary from the Company in Fiscal 2023 or Fiscal 2022. Mr. Murphy’s increase in base salary was primarily due to additional time commitment of Mr. Murphy in his consulting role as Executive Chairman of the Company.

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 2023, the Compensation Committee determined that the annual target bonus opportunity expressed as a percentage of base salary for each of

Mr. Jurgensen and Dr. Miner should be 40% of each of their respective base salaries. For Fiscal 2023, the Company also adopted an objectives and key results goal-setting framework (“OKRs”) used by individuals, teams, and the Company to define measurable goals and track their outcomes, originally developed and implemented by Andrew Grove at Intel. See: <http://www.whatmatters.com>. Each executive officer is eligible to receive an increase in his target bonus amount based on the achievement of individual and corporate OKRs.

As of the date of the filing of this proxy statement, the Compensation Committee has not yet determined the annual cash bonus amounts, if any, that will be awarded to our eligible named executive officers, Mr. Jurgensen and Dr. Miner, for Fiscal 2023. We expect the Compensation Committee to assess 2023 performance and determine the 2023 annual cash bonus awards for Mr. Jurgensen and Dr. Miner by September 2023. Once such annual cash bonus amounts, if any, have been determined, we will, in accordance with SEC rules and regulations, file a Current Report on Form 8-K or otherwise disclose the 2023 annual cash bonus amount within four business days after the Compensation Committee has assessed 2023 performance and determined the 2023 annual cash bonus awards for Mr. Jurgensen and/or Dr. Miner.

Mr. Murphy is retained through MDBI, a biotechnology consulting firm, pursuant to the terms of a consulting agreement. As such, Mr. Murphy is not eligible to receive a bonus for services provided during the fiscal year. The Compensation Committee believes that this situation best serves the Company’s interests because Mr. Murphy is a member of the Board of Directors and has strong incentives aligned with stockholders to improve the performance of the Company’s stock in the form of performance-based equity awards granted by Company that trigger upon reaching stock price target.

Equity-Based Incentive Awards. In addition to base salaries and annual performance-based cash incentives, the Compensation Committee has provided long-term, equity-based incentive awards to our executive officers. In determining the size and terms of the 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 granted the following awards for Fiscal 2023:

Name	Time-Based Option Awards (#)	Performance-Based Option Awards (#)	Stock Awards (#)	Time-Based Option Awards (\$) ⁽¹⁾	Performance-Based Option Awards (\$)	Stock Awards (\$)	Total (\$)
Keith Murphy	40,000	—	—	\$ 73,921	\$ —	\$ —	\$ 73,921
Thomas Jurgensen	40,000	—	—	73,921	—	—	73,921
Jeffrey Miner	40,000	—	—	73,921	—	—	73,921

(1) These amounts represent the grant date fair value of time-based stock option 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 5 – Stockholders’ Equity” of the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended March 31, 2023, as filed with the SEC on July 14, 2023.

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 Arrangement

As of November 10, 2020, the Company implemented a change in control arrangement, which provides that, in the event an executive is terminated in connection with a Change in Control: the executive will receive (a) in the case of our Executive Chairman, 18 months of base salary or consulting fees, as applicable, and (b) in the case of our other executives, 12 months of base salary.

Potential Payments upon Termination or Change in Control

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, 2023 based upon certain designated events.

Name	Cash Severance (\$)	Health and Other Insurance Benefits (\$)	Stock Options (Unvested and Accelerated) (\$)	Restricted Stock Units (Unvested and Accelerated) (\$)	Fiscal Year 2022 Total (\$)(1)
Keith Murphy					
Termination in connection with a Change in Control	\$ 1,288,560	\$ —	\$ —	\$ —	\$ 1,288,560
Thomas Jurgensen					
Termination in connection with a Change in Control	\$ 381,263	\$ —	\$ —	\$ —	\$ 381,263
Jeffrey Miner					
Termination in connection with a Change in Control	\$ 238,292	\$ —	\$ —	\$ —	\$ 238,292

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.

Summary Compensation Table

The following table summarizes the total compensation paid to or earned by each named executive officer for Fiscal 2023 and Fiscal 2022.

Name and Principal Position	Year or Period	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$) ⁽¹⁾	Non-Equity Incentive Plan Compensation (\$) ⁽²⁾	All Other Compensation (\$)	Total (\$)
Keith Murphy ⁽³⁾	2023	543,781	—	—	73,921	—	3,746 ⁽⁴⁾	621,448
Executive Chairman	2022	430,073	—	—	829,672	—	400	1,260,144
Thomas Jurgensen	2023	381,263	—	—	73,921	— ⁽⁵⁾	10,790 ⁽⁶⁾	465,974
General Counsel and Corporate Secretary	2022	360,000	—	—	264,054	180,000	8,029 ⁽⁶⁾	812,083
Jeffrey Miner	2023	238,292	—	—	73,921	— ⁽⁵⁾	3,540 ⁽⁶⁾	315,753

Chief Scientific Officer	2022	225,000	—	—	443,247	78,750	—	747,027
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- (1) These amounts represent the grant date fair value of time-based stock option 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 5 – Stockholders’ Equity” of the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended March 31, 2023, as filed with the SEC on July 14, 2023.
- (2) 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.
- (3) Mr. Murphy was appointed our Executive Chairman on September 15, 2020. The amounts reported under “Salary” are comprised of the amounts paid to MDBI for its consulting services. Mr. Murphy did not receive a base salary from the Company in Fiscal 2023 or Fiscal 2022. Mr. Murphy also received compensation for services as a member of the Board of Directors, which is included in the section entitled “Director Compensation Table” on page 39 of this Proxy Statement.
- (4) This amount includes \$1,996 for expense reimbursements, \$1,200 for administrative services and \$550 for office rent.
- (5) Does not include for Fiscal 2023 the amount of any annual cash bonus that may be awarded to the named executive officer as the Compensation Committee has not, as of the date of the filing of this proxy statement, yet determined the annual cash bonus amount, if any, that will be awarded to the named executive officer for Fiscal 2023. See above under “Executive Compensation – Components of Executive Compensation – Performance-Based Cash Incentive Awards” for a discussion of the target bonus amount for the named executive officer for Fiscal 2023. We expect the Compensation Committee to assess 2023 performance and determine the 2023 annual cash bonus award, if any, for the named executive officer by September 2023. Once such annual cash bonus amount, if any, has been determined, we will, in accordance with Securities and Exchange Commission rules and regulations, file a Current Report on Form 8-K or otherwise disclose the 2023 annual cash bonus amount within four business days after the Compensation Committee has assessed 2023 performance and determined the 2023 annual cash bonus award for the named executive officer.
- (6) These amounts consist of 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.”

Outstanding Equity Awards at Fiscal Year End

The following table shows certain information regarding outstanding equity awards as of March 31, 2023 for our named executive officers:

Name	Option Awards				Stock Awards	
	No. of Securities Underlying Unexercised Options (#) Exercisable	No. of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	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	40,622 ⁽¹⁾	24,378	\$ 7.64	9/15/2030	10,000 ⁽⁵⁾	\$ 21,900
	22,500 ⁽²⁾	22,500	10.27	3/8/2031		
	— ⁽³⁾	60,000	10.27	3/8/2031		
	— ⁽⁴⁾	60,000	10.27	3/8/2031		
	— ⁽⁷⁾	60,000	6.70	10/7/2031		
	— ⁽⁸⁾	60,000	6.70	10/7/2031		
	30,000 ⁽⁹⁾	—	6.70	10/7/2031		
	— ⁽¹⁰⁾	30,000	6.70	10/7/2031		
	5,000 ⁽¹²⁾	35,000	2.36	8/31/2032		
	Thomas Jurgensen	12,500 ⁽¹⁾	7,500	7.64		
19,688 ⁽⁶⁾		15,312	10.27	3/8/2031		
16,258 ⁽¹¹⁾		35,765	6.70	10/7/2031		
5,000 ⁽¹²⁾		35,000	2.36	8/31/2032		
Jeffrey Miner	62,500 ⁽¹⁾	37,500	7.64	9/15/2030		
	— ⁽³⁾	12,500	10.27	3/8/2031		
	— ⁽⁴⁾	12,500	10.27	3/8/2031		
	16,258 ⁽¹¹⁾	35,765	6.70	10/7/2031		
	— ⁽⁷⁾	12,500	6.70	10/7/2031		
	— ⁽⁸⁾	12,500	6.70	10/7/2031		
	7,500 ⁽⁹⁾	—	6.70	10/7/2031		
	— ⁽¹⁰⁾	7,500	6.70	10/7/2031		
5,000 ⁽¹²⁾	35,000	2.36	8/31/2032			

- (1) 25% of the option shares vested and became exercisable on September 15, 2021 and the remaining shares vest in 12 equal quarterly installments thereafter.

- (2) 25% of the option shares vested and became exercisable on March 8, 2022 and the remaining shares vest in 12 equal quarterly installments thereafter.
- (3) The option becomes exercisable, if at all, if the 45-day moving average closing price of Organovo Holdings, Inc.'s common stock on The Nasdaq Stock Market LLC exceeds \$20.00 per share.
- (4) The option becomes exercisable, if at all, if the 45-day moving average closing price of Organovo Holdings, Inc.'s common stock on The Nasdaq Stock Market LLC exceeds \$25.00 per share.
- (5) 25% of the shares subject to the restricted stock unit vested on March 8, 2022 and the remaining shares vest in 12 equal quarterly installments thereafter.
- (6) 25% of the option shares vested and became exercisable on December 31, 2021 and the remaining shares vest in 12 equal quarterly installments thereafter.
- (7) The option becomes exercisable, if at all, if the 45-day moving average closing price of Organovo Holdings, Inc.'s common stock on The Nasdaq Stock Market LLC exceeds \$30.00 per share.
- (8) The option becomes exercisable, if at all, if the 45-day moving average closing price of Organovo Holdings, Inc.'s common stock on The Nasdaq Stock Market LLC exceeds \$35.00 per share.
- (9) The option became exercisable when the Company revenue hit \$1.5 million per year based on three quarters of results.
- (10) The option becomes exercisable, if at all, when the Company closes a 7-figure cash up front deal with a major pharmaceutical company.
- (11) The option shares vest in 16 equal quarterly installments beginning October 7, 2021.
- (12) The option shares vest in 16 equal quarterly installments beginning August 31, 2022.

ITEM 402(V) PAY VERSUS PERFORMANCE

As required by Section 953(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 402(v) of Regulation S-K, we are providing the following disclosure about the relationship between compensation actually paid for our principal executive officer (“PEO”) and non-PEO named executive officers (“Non-PEO NEOs”) and certain financial performance of the Company. As a smaller reporting company, we are permitted to, and have elected to, provide scaled disclosure. The disclosure included in this section does not necessarily align with how the Company or the Compensation Committee view the relationship between the Company's performance and executive compensation. For additional information about our pay for performance compensation philosophy and how we seek to align executive compensation with the Company's performance, please refer to "Executive Compensation" beginning on page 45.

Tabular Disclosure of Pay Versus Performance

The following table presents the pay versus performance information for our named executive officers. The amounts set forth in the table below under the headings "Compensation Actually Paid to PEO" and "Average Compensation Actually Paid to Non-PEO NEOs" have been calculated in a manner consistent with Item 402(v) of Regulation S-K. Use of the term "compensation actually paid" is required by the SEC's rules and, as a result of the calculation methodology required by the SEC, such amounts differ from compensation actually received by such individuals included in the table. Our Executive Chairman is our principal executive officer and is referred to as PEO in the headers of the following tables.

Fiscal Year	Summary Compensation Table Total for PEO ⁽¹⁾ (\$)	Compensation Actually Paid to PEO ⁽²⁾ (\$)	Average Summary Compensation Table Total for Non-PEO NEOs ⁽³⁾ (\$)	Average Compensation Actually Paid to Non-PEO NEOs ⁽²⁾ (\$)	Value of Initial Fixed \$100 Investment Based on Total Shareholder Return ("TSR") ⁽⁴⁾ (\$)	Net Loss (in thousands) ⁽⁵⁾ (\$)
2023	621,448	368,248	390,863	301,185	22.72	(17,259)
2022	1,260,144	(24,883)	779,555	262,422	39.00	(11,448)

- (1) Represents the amounts of total compensation reported for Mr. Murphy (our Executive Chairman) for each corresponding year in the "Total" column of the Summary Compensation Table. Please refer to "Executive Compensation - Summary Compensation Table" for additional details.
- (2) Represents the amount of compensation actually paid as computed in accordance with Item 402(v) of Regulation S-K. Please refer to the table below for adjustments made to the total compensation for our PEO and average total compensation for our Non-PEO NEOs each year to determine the compensation actually paid:

	PEO		Average of Non-PEO NEOs	
	2023	2022	2023	2022
Summary Compensation Table Total	\$ 621,448	\$ 1,260,144	\$ 390,863	\$ 779,555
Less: Grant Date Fair Value of Equity Awards as reported in Summary Compensation Table ^(a)	73,921	829,672	73,921	353,651
Adjusted fair value of equity awards				
Fair value at year-end of awards granted during the year that are outstanding and unvested	60,894	492,234	60,894	188,923
Change in fair value at year-end of awards granted in prior years that are outstanding and unvested from prior year-end	(47,955)	(1,290,498)	(15,523)	(492,366)
Fair value at vesting date of equity awards granted during the year that vested during the year	7,691	62,791	7,691	17,260
Change in fair value at vesting date of equity awards granted in prior years that vested during the year from prior year-end	(199,909)	280,118	(68,819)	122,701
Compensation Actually Paid	\$ 368,248	\$ (24,883)	\$ 301,185	\$ 262,422

- (a) Represents the total of the amounts reported in the "Stock Awards" and "Option Awards" columns in the Summary Compensation Table for the applicable year.
- (3) Represents the average of the amounts reported for the NEOs as a group (excluding our PEO) in the "Total" column of the Summary Compensation Table for each applicable fiscal year. The NEOs (excluding our PEO) included for purposes of calculating the average amounts in each applicable fiscal year are Mr. Jurgensen and Dr. Miner. The "Total" column of the Summary Compensation Table for Fiscal

2023 does not include the amount of any annual cash bonus that may be awarded to Mr. Jurgensen and/or Dr. Miner as the Compensation Committee has not, as of the date of the filing of this proxy statement, yet determined the annual cash bonus amounts, if any, that will be awarded Mr. Jurgensen and/or Dr. Miner for Fiscal 2023. See above under “Executive Compensation – Components of Executive Compensation – Performance-Based Cash Incentive Awards” for a discussion of the target bonus amount for the named executive officers for Fiscal 2023. We expect the Compensation Committee to assess 2023 performance and determine the 2023 annual cash bonus awards, if any, for the named executive officers by September 2023.

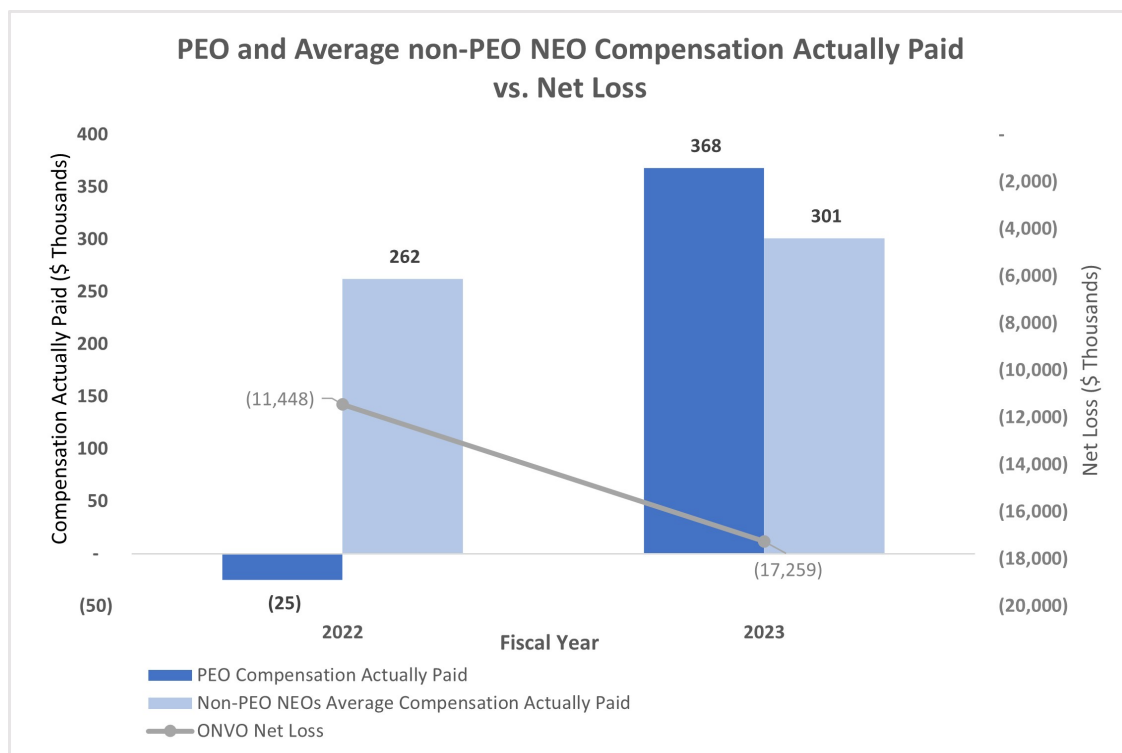
- (4) TSR is determined based on the value of an initial fixed investment of \$100 on March 31, 2021. Cumulative TSR is calculated by dividing (i) the sum of the cumulative amount of dividends for the measurement period, assuming dividend reinvestment, and the difference between the Company’s stock price at the end and the beginning of the measurement period by (ii) the Company’s stock price at the beginning of the measurement period.
- (5) Represents the net loss attributable to the Company for each applicable fiscal year as reported in our audited financial statements included in our Annual Report on Form 10-K for the year ended March 31, 2023, as filed with the SEC on July 14, 2023.

Narrative Disclosure to Pay Versus Performance Table

In accordance with Item 402(v) of Regulation S-K, we are providing the following descriptions of the relationship between the information presented in the Pay Versus Performance table above.

Compensation Actually Paid and Net Loss

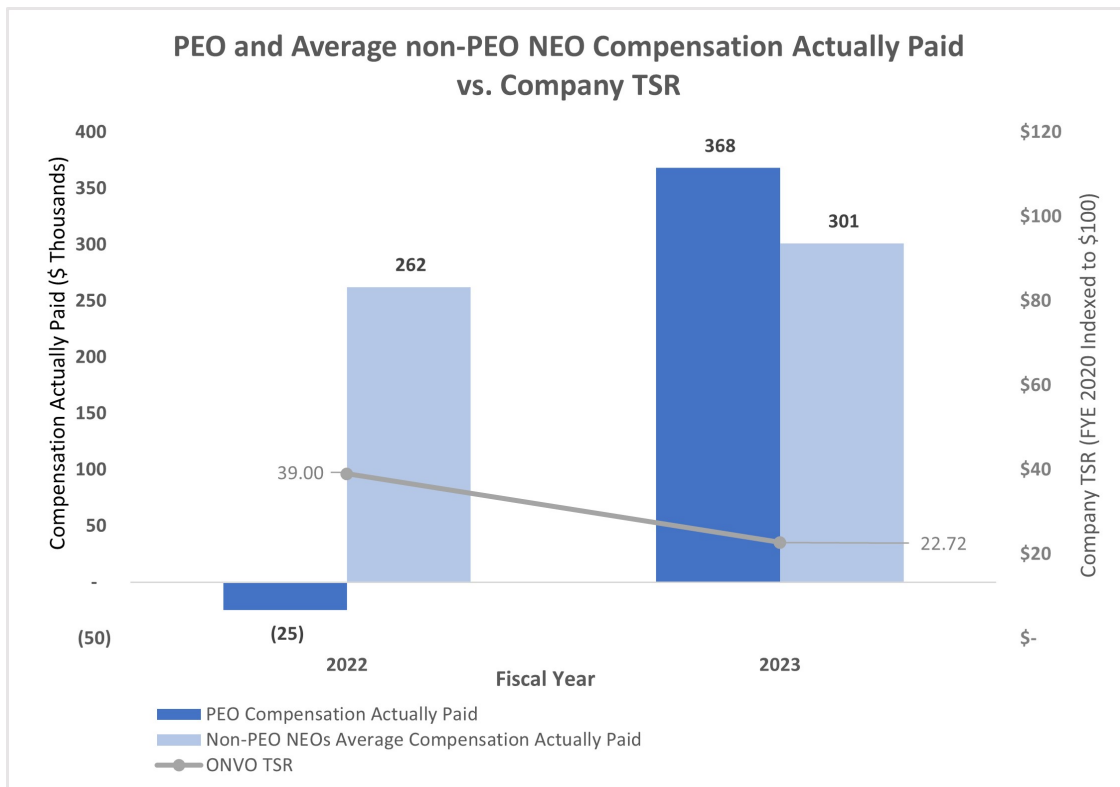
The graph below shows the relationship between the compensation actually paid to our PEO, the average of compensation actually paid to our non-PEO NEOs and our net loss during the two most recently completed fiscal years.



We do not use net loss as a performance measurement in our executive compensation. As a pre-commercial stage company, we do not believe there is any meaningful relationship between our net loss and compensation actually paid to our NEOs during the periods presented.

Compensation Actually Paid and Cumulative TSR

The following graph sets forth the relationship between compensation actually paid to our PEO, the average of compensation actually paid to our non-PEO NEOs and the Company's cumulative TSR over the two most recently completed fiscal years.



All information provided above under the "Pay Versus Performance" heading will not be deemed to be incorporated by reference into any filing of the Company under the Securities Act or the Exchange Act whether made before or after the date hereof and irrespective of any general incorporation language in any such filing, except to the extent the Company specifically incorporates such information by reference.

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, 2023, filed with the SEC on July 14, 2023. 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 or the Exchange Act except to the extent that the Company specifically incorporates it by reference in such filing.

The Audit Committee currently consists of three directors, each of whom is an “independent director” as defined under the listing standards for the Nasdaq Capital 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. 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. Management has the responsibility for the financial statements and the reporting process, including internal control systems. Our independent registered public accounting firm, Mayer Hoffman McCann P.C. (“MHM”), 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 MHM to review the financial statements included in the Form 10-K. The Audit Committee discussed with a representative of MHM the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board (“PCAOB”) and the SEC. In addition, the Audit Committee met with MHM, with and without management present, to discuss the overall scope of MHM’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 MHM required by applicable requirements of the PCAOB regarding MHM’s communications with the Audit Committee concerning independence, and has discussed with MHM its independence, and satisfied itself as to the independence of MHM.

Conclusion

Based on the above review, discussions, and representations received, the Audit Committee recommended to the Board of Directors that the audited financial statements for the fiscal year ended March 31, 2023 be included in the Company’s Form 10-K and filed with the SEC.

The Audit Committee of the Board of Directors:

Alison Tjosvold Milhous (Chair)

Douglas Jay Cohen

Adam Stern

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Since April 1, 2022, there have not been any transactions or series of similar transactions to which we were or are a party in which the amount involved exceeded or exceeds the lesser of \$120,000 or one percent of the average of our total assets at fiscal year-end for the last two completed fiscal years, 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 (i) the transactions described below and (ii) the compensation arrangements with our executive officers and non-employee directors described in “Executive Compensation” and “Director Compensation,” respectively.

Intercompany Agreement with Viscient

Viscient is an entity for which Keith Murphy, our Executive Chairman and member of our Board, serves as the Chief Executive Officer and President. Dr. Jeffrey Miner, the Company’s Chief Scientific Officer, is also the Chief Scientific Officer of Viscient, and Thomas Jurgensen, the Company’s General Counsel, previously served as outside legal counsel to Viscient through his law firm, Optima Law Group, APC. In addition, Messrs. Stern, Cohen and Gobel (through the Methuselah Foundation and the Methuselah Fund) have invested funds through a convertible promissory note in Viscient, but do not serve as an employee, officer or director of Viscient.

On December 28, 2020, the Company entered into an intercompany agreement (the “Intercompany Agreement”) with Viscient and Organovo, Inc., the Company’s wholly-owned subsidiary, which included an asset purchase agreement for certain lab equipment. Pursuant to the Intercompany Agreement, the Company agreed to provide Viscient certain services related to 3D bioprinting technology which includes, but is not limited to, histology services, cell isolation, and proliferation of cells and Viscient agreed to provide the Company certain services related to 3D bioprinting technology, including bioprinter training, bioprinting services, and qPCR assays, in each case on payment terms specified in the Intercompany Agreement and as may be further determined by the parties. In addition, the Company and Viscient each agreed to share certain facilities and equipment, and, subject to further agreement, to each make certain employees available for specified projects for the other party at prices to be determined in good faith by the parties. The Company evaluated the accounting for the Intercompany Agreement and concluded that any services provided by Viscient to the Company will be expensed as incurred, and any compensation for services provided by the Company to Viscient will be considered a reduction of personnel related expenses. Any services provided to Viscient do not fall under Financial Accounting Standards Board Topic 606 (“Revenue from Contracts with Customers”) as the Intercompany Agreement is not a contract with a customer. For the years ended March 31, 2023 and 2022, the Company incurred approximately zero and \$47,000 in consulting expenses from Viscient, respectively. Additionally, for the years ended March 31, 2023 and 2022, the Company provided approximately \$59,000 and \$48,000 of histology services to Viscient, respectively.

Related Party Transaction Policy and Procedures

Pursuant to our written 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 a committee of 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 terms of the transaction, the nature of the related party’s interest in the transaction, the significance of the transaction to us and the related party, the nature of the related party’s relationship with us and whether the transaction would be likely to impair (or create an appearance of impairing) the judgement of a director or executive officer to act in our best interest. 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 mailed and made available to stockholders, in accordance with SEC rules, by providing access to these documents on the internet in addition to mailing printed copies. 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 2024 ANNUAL MEETING

Stockholders interested in submitting a proposal for consideration at our 2024 Annual Meeting must do so by sending the proposal to our Corporate Secretary at Organovo Holdings, Inc., 11555 Sorrento Valley Rd., Suite 100, San Diego, CA 92121. Under the SEC's proxy rules, the deadline for submission of proposals to be included in our proxy materials for the 2024 Annual Meeting is [___], 2024, which is not more than 120 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 Annual Meeting (i.e., [___], 2024). Accordingly, in order for a stockholder proposal to be considered for inclusion in our proxy materials for the 2024 Annual Meeting, any such stockholder proposal must be received by our Corporate Secretary on or before [___], 2024, and comply with the procedures and requirements set forth in Rule 14a-8 under the Exchange Act, as well as the applicable requirements of our Bylaws. Any stockholder proposal received after [___], 2024 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. Stockholders interested in nominating a person for election as directors must also comply with the regulations under Exchange Act Rule 14a-19 ("Rule 14a-19"), which requires, among other things, that such notice include a statement that such person intends to solicit the holders of shares representing at least 67% of the voting power of shares entitled to vote on the election of directors.

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 later than 5:00 p.m. Pacific Time on the 45th day nor earlier than 9:00 a.m. Pacific Time on the 75th day 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 Annual Meeting (i.e., [___], 2024) 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 2024 Annual Meeting, such a proposal must be received by the Company on or after 9:00 a.m. Pacific Time on [___], 2024 but no later than 5:00 p.m. Pacific Time on [___], 2024. Additionally, pursuant to Rule 14a-19, nominations of persons for elections as directors must also be postmarked or electronically submitted no later than [___], 2024. If the date of the 2024 Annual Meeting is advanced by more than 30 days, or delayed by more than 60 days, from the one-year anniversary date of the Annual Meeting, notice must be received no earlier than 5:00 p.m. Pacific Time on the 120th day prior to such Annual Meeting and not later than 5:00 p.m. Pacific Time 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 for the fiscal year ended March 31, 2023 (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 Report,

Proxy Statement and Notice, you may do so by making a written or oral request to: Organovo Holdings, Inc., 11555 Sorrento Valley Rd., Suite 100, San Diego, CA 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.proxyvote.com.

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 copy of the Annual Report, Proxy Statement and 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: Stephen Jones, 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, 2023 with the SEC on July 14, 2023 (the "Annual Report"). A copy of the Company's Annual Report has been mailed to the stockholders of record and will also be made available (without exhibits), free of charge, to interested stockholders upon written request to Organovo Holdings, Inc., 11555 Sorrento Valley Rd., Suite 100, San Diego, CA 92121, Attention: Corporate Secretary. The Annual Report 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, appearing to read 'Thomas Jurgensen', with a long horizontal flourish extending to the right.

Thomas Jurgensen
General Counsel and Corporate Secretary

Annex A

Organovo Holdings, Inc.

2023 Employee Stock Purchase Plan
Adopted by the Board of Directors: July 12, 2023
Approved by the Stockholders: [____], 2023
Effective Date: [____], 2023

1. General; Purpose.

a. The Plan provides a means by which Eligible Employees of the Company and certain Designated Companies may be given an opportunity to purchase shares of Common Stock. The Plan permits the Company to grant a series of Purchase Rights to Eligible Employees under an Employee Stock Purchase Plan. In addition, the Plan permits the Company to grant a series of Purchase Rights to Eligible Employees that do not meet the requirements of an Employee Stock Purchase Plan.

b. The Plan includes two components: a 423 Component and a Non-423 Component. The Company intends (but makes no undertaking or representation to maintain) the 423 Component to qualify as an Employee Stock Purchase Plan. The provisions of the 423 Component, accordingly, will be construed in a manner that is consistent with the requirements of Section 423 of the Code. Except as otherwise provided in the Plan or determined by the Board, the Non-423 Component will operate and be administered in the same manner as the 423 Component.

c. The Company, by means of the Plan, seeks to retain the services of such Employees, to secure and retain the services of new Employees and to provide incentives for such persons to exert maximum efforts for the success of the Company and its Related Corporations.

2. Administration.

a. The Board or the Committee will administer the Plan. References herein to the Board shall be deemed to refer to the Committee except where context dictates otherwise.

b. The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

i. To determine how and when Purchase Rights will be granted and the provisions of each Offering (which need not be identical).

ii. To designate from time to time (A) which Related Corporations will be eligible to participate in the Plan as Designated 423 Corporations, (B) which Related Corporations or Affiliates will be eligible to participate in the Plan as Designated Non-423 Corporations, or (C) which Designated Companies will participate in each separate Offering (to the extent that the Company makes separate Offerings).

iii. To construe and interpret the Plan and Purchase Rights, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan, in a manner and to the extent it deems necessary or expedient to make the Plan fully effective.

iv. To settle all controversies regarding the Plan and Purchase Rights granted under the Plan.

v. To suspend or terminate the Plan at any time as provided in Section 12.

vi. To amend the Plan at any time as provided in Section 12.

vii. Generally, to exercise such powers and to perform such acts as it deems necessary or expedient to promote the best interests of the Company and its Related Corporations and to carry out the intent that the Plan be treated as an Employee Stock Purchase Plan with respect to the 423 Component.

viii. To adopt such rules, procedures and sub-plans as are necessary or appropriate to permit or facilitate participation in the Plan by Employees who are foreign nationals or employed or located outside the United States. Without limiting the generality of, and consistent with, the foregoing, the Board specifically is authorized to adopt rules, procedures, and sub-plans regarding, without limitation, eligibility to participate in the Plan, the definition of eligible "earnings," handling and making of Contributions, establishment of bank or trust accounts to hold Contributions, payment of interest, conversion of local currency, obligations to pay payroll tax, determination of beneficiary designation requirements, withholding procedures and handling of share issuances, any of which may vary according to applicable requirements, and which, if applicable to a Designated Non-423 Corporation, do not have to comply with the requirements of Section 423 of the Code.

c. The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. Further, to the extent not prohibited by Applicable Law, the Board or Committee may, from time to time, delegate some or all of its authority under the Plan to one or more officers of the Company or other persons or groups of persons as it deems necessary, appropriate or advisable under conditions or limitations that it may set at or after the time of the delegation. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revert in the Board some or all of the powers previously delegated. Whether or not the Board has delegated administration of the Plan to a Committee, the Board will have the final power to determine all questions of policy and expediency that may arise in the administration of the Plan.

d. All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

3. Shares of Common Stock Subject to the Plan.

a. Subject to the provisions of Section 11(a) relating to Capitalization Adjustments, the maximum number of shares of Common Stock that may be issued under the Plan will not exceed 45,000 shares of Common Stock. For the avoidance of doubt, up to the maximum number of shares of Common Stock reserved under this Section 3(a) may be used to satisfy purchases of Common Stock under the 423 Component and any remaining portion of such maximum number of shares may be used to satisfy purchases of Common Stock under the Non-423 Component.

b. If any Purchase Right granted under the Plan terminates without having been exercised in full, the shares of Common Stock not purchased under such Purchase Right will again become available for issuance under the Plan.

c. The stock purchasable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market.

4. Grant of Purchase Rights; Offering.

a. The Board may, from time to time, grant or provide for the grant of Purchase Rights to Eligible Employees under an Offering (consisting of one or more Purchase Periods) on an Offering Date or Offering Dates selected by the Board. Each Offering will be in such form and will contain such terms and conditions as the Board will deem appropriate, and, with respect to the 423 Component, will comply with the requirement of Section 423(b)(5) of the Code that all Employees granted Purchase Rights will have the same rights and privileges. The terms and conditions of an Offering shall be incorporated by reference into the Plan and treated as part of the Plan. The provisions of separate Offerings need not be identical, but each Offering will include (through incorporation of the provisions of this Plan by reference in the document comprising the Offering or otherwise) the period during which

the Offering will be effective, which period will not exceed 27 months beginning with the Offering Date, and the substance of the provisions contained in Sections 5 through 8, inclusive.

b. If a Participant has more than one Purchase Right outstanding under the Plan, unless he or she otherwise indicates in forms delivered to the Company or a third party designated by the Company (each, a “*Company Designee*”): (i) each form will apply to all of his or her Purchase Rights under the Plan, and (ii) a Purchase Right with a lower exercise price (or an earlier-granted Purchase Right, if different Purchase Rights have identical exercise prices) will be exercised to the fullest possible extent before a Purchase Right with a higher exercise price (or a later-granted Purchase Right if different Purchase Rights have identical exercise prices) will be exercised.

c. The Board will have the discretion to structure an Offering so that if the Fair Market Value of a share of Common Stock on the first Trading Day of a new Purchase Period within that Offering is less than or equal to the Fair Market Value of a share of Common Stock on the Offering Date for that Offering, then (i) that Offering will terminate immediately as of that first Trading Day, and (ii) the Participants in such terminated Offering will be automatically enrolled in a new Offering beginning on the first Trading Day of such new Purchase Period.

5. Eligibility.

a. Purchase Rights may be granted only to Employees of the Company or, as the Board may designate in accordance with Section 2(b), to Employees of a Related Corporation or an Affiliate. Except as provided in Section 5(b) or as required by Applicable Law, an Employee will not be eligible to be granted Purchase Rights unless, on the Offering Date, the Employee has been in the employ of the Company or the Related Corporation or an Affiliate, as the case may be, for such continuous period preceding such Offering Date as the Board may require, but in no event will the required period of continuous employment be equal to or greater than two years. In addition, the Board may (unless prohibited by Applicable Law) provide that no Employee will be eligible to be granted Purchase Rights under the Plan unless, on the Offering Date, such Employee’s customary employment with the Company, the Related Corporation, or the Affiliate is more than 20 hours per week and more than five months per calendar year or such other criteria as the Board may determine consistent with Section 423 of the Code with respect to the 423 Component. The Board may also exclude from participation in the Plan or any Offering Employees who are “highly compensated employees” (within the meaning of Section 423(b)(4)(D) of the Code) of the Company or a Related Corporation or a subset of such highly compensated employees.

b. The Board may provide that each person who, during the course of an Offering, first becomes an Eligible Employee will, on a date or dates specified in the Offering which coincides with the day on which such person becomes an Eligible Employee or which occurs thereafter, receive a Purchase Right under that Offering, which Purchase Right will thereafter be deemed to be a part of that Offering. Such Purchase Right will have the same characteristics as any Purchase Rights originally granted under that Offering, as described herein, except that:

i. the date on which such Purchase Right is granted will be the “Offering Date” of such Purchase Right for all purposes, including determination of the exercise price of such Purchase Right;

ii. the period of the Offering with respect to such Purchase Right will begin on its Offering Date and end coincident with the end of such Offering; and

iii. the Board may provide that if such person first becomes an Eligible Employee within a specified period of time before the end of the Offering, he or she will not receive any Purchase Right under that Offering.

c. No Employee will be eligible for the grant of any Purchase Rights if, immediately after any such Purchase Rights are granted, such Employee owns stock possessing 5% or more of the total combined voting power or value of all classes of stock of the Company or of any Related Corporation. For purposes of this Section 5(c), the rules of Section 424(d) of the Code will apply in determining the stock ownership of any Employee, and stock that such Employee may purchase

under all outstanding Purchase Rights and options will be treated as stock owned by such Employee.

d. As specified by Section 423(b)(8) of the Code, an Eligible Employee may be granted Purchase Rights only if such Purchase Rights, together with any other rights granted under all Employee Stock Purchase Plans of the Company and any Related Corporations, do not permit such Eligible Employee's rights to purchase stock of the Company or any Related Corporation to accrue at a rate which, when aggregated, exceeds US \$25,000 of Fair Market Value of such stock (determined at the time such rights are granted, and which, with respect to the Plan, will be determined as of their respective Offering Dates) for each calendar year in which such rights are outstanding at any time.

e. Officers of the Company and any Designated Company, if they are otherwise Eligible Employees, will be eligible to participate in Offerings under the Plan. Notwithstanding the foregoing, the Board may (unless prohibited by Applicable Law) provide in an Offering that Employees who are highly compensated Employees within the meaning of Section 423(b)(4)(D) of the Code will not be eligible to participate.

f. Notwithstanding anything in this Section 5 to the contrary, in the case of an Offering under the Non-423 Component, an Eligible Employee (or group of Eligible Employees) may be excluded from participation in the Plan or an Offering if the Board has determined, in its sole discretion, that participation of such Eligible Employee(s) is not advisable or practical for any reason.

6. Purchase Rights; Purchase Price.

a. On each Offering Date, each Eligible Employee, pursuant to an Offering made under the Plan, will be granted a Purchase Right to purchase up to that number of shares of Common Stock purchasable either with a percentage or with a maximum dollar amount, as designated by the Board, but in either case not exceeding 15% of such Employee's earnings (as defined by the Board in each Offering) during the period that begins on the Offering Date (or such later date as the Board determines for a particular Offering) and ends on the date stated in the Offering, which date will be no later than the end of the Offering.

b. The Board will establish one or more Purchase Dates during an Offering on which Purchase Rights granted for that Offering will be exercised and shares of Common Stock will be purchased in accordance with such Offering.

c. In connection with each Offering made under the Plan, each Eligible Employee may purchase up to 500 shares of Common Stock (or such lesser number of shares determined by the Board prior to the commencement of the Offering) and the Board may specify (i) a maximum number of shares of Common Stock that may be purchased by any Participant on any Purchase Date during such Offering, (ii) a maximum aggregate number of shares of Common Stock that may be purchased by all Participants pursuant to such Offering and/or (iii) a maximum aggregate number of shares of Common Stock that may be purchased by all Participants on any Purchase Date under the Offering. If the aggregate purchase of shares of Common Stock issuable upon exercise of Purchase Rights granted under the Offering would exceed any such maximum aggregate number, then, in the absence of any Board action otherwise, a pro rata (based on each Participant's accumulated Contributions) allocation of the shares of Common Stock (rounded down to the nearest whole share) available will be made in as nearly a uniform manner as will be practicable and equitable.

d. The purchase price of shares of Common Stock acquired pursuant to Purchase Rights will be not less than the lesser of:

- i.** an amount equal to 85% of the Fair Market Value of the shares of Common Stock on the Offering Date; or
- ii.** an amount equal to 85% of the Fair Market Value of the shares of Common Stock on the applicable Purchase Date.

7. Participation; Withdrawal; Termination.

a. An Eligible Employee may elect to participate in an Offering and authorize payroll deductions as the means of making Contributions by completing and delivering to the Company or a Company Designee, within the time specified in the Offering, an enrollment form provided by the Company or Company Designee. The enrollment form will specify the amount of Contributions not to exceed the maximum amount specified by the Board. Each Participant's Contributions will be credited to a bookkeeping account for such Participant under the Plan and will be deposited with the general funds of the Company except where Applicable Law requires that Contributions be deposited with a third party. If permitted in the Offering, a Participant may begin such Contributions with the first payroll occurring on or after the Offering Date (or, in the case of a payroll date that occurs after the end of the prior Offering but before the Offering Date of the next new Offering, Contributions from such payroll will be included in the new Offering). If permitted in the Offering, a Participant may thereafter reduce (including to zero) or increase his or her Contributions. If required under Applicable Law or if specifically provided in the Offering, in addition to or instead of making Contributions by payroll deductions, a Participant may make Contributions through payment by cash, check or wire transfer prior to a Purchase Date.

b. During an Offering, a Participant may cease making Contributions and withdraw from the Offering by delivering to the Company or a Company Designee a withdrawal form provided by the Company. The Company may impose a deadline before a Purchase Date for withdrawing. Upon such withdrawal, such Participant's Purchase Right in that Offering will immediately terminate and the Company will distribute as soon as practicable to such Participant all of his or her accumulated but unused Contributions and such Participant's Purchase Right in that Offering shall thereupon terminate. A Participant's withdrawal from that Offering will have no effect upon his or her eligibility to participate in any other Offerings under the Plan, but such Participant will be required to deliver a new enrollment form to participate in subsequent Offerings.

c. Unless otherwise required by Applicable Law, Purchase Rights granted pursuant to any Offering under the Plan will terminate immediately if the Participant either (i) is no longer an Employee for any reason or for no reason (subject to any post-employment participation period required by Applicable Law) or (ii) is otherwise no longer eligible to participate. The Company will distribute as soon as practicable to such individual all of his or her accumulated but unused Contributions.

d. Unless otherwise determined by the Board, a Participant whose employment transfers or whose employment terminates with an immediate rehire (with no break in service) by or between the Company and a Designated Company or between Designated Companies will not be treated as having terminated employment for purposes of participating in the Plan or an Offering; however, if a Participant transfers from an Offering under the 423 Component to an Offering under the Non-423 Component, the exercise of the Participant's Purchase Right will be qualified under the 423 Component only to the extent such exercise complies with Section 423 of the Code. If a Participant transfers from an Offering under the Non-423 Component to an Offering under the 423 Component, the exercise of the Purchase Right will remain non-qualified under the Non-423 Component. The Board may establish different and additional rules governing transfers between separate Offerings within the 423 Component and between Offerings under the 423 Component and Offerings under the Non-423 Component.

e. During a Participant's lifetime, Purchase Rights will be exercisable only by such Participant. Purchase Rights are not transferable by a Participant, except by will, by the laws of descent and distribution, or, if permitted by the Company, by a beneficiary designation as described in Section 10.

f. Unless otherwise specified in the Offering or as required by Applicable Law, the Company will have no obligation to pay interest on Contributions.

8. Exercise of Purchase Rights.

a. On each Purchase Date, each Participant's accumulated Contributions will be applied to the purchase of shares of Common Stock, up to the maximum number of shares of Common Stock permitted by the Plan and the applicable Offering, at the purchase price specified in the Offering. No fractional shares will be issued unless specifically provided for in the Offering.

b. Unless otherwise provided in the Offering, if any amount of accumulated Contributions remains in a Participant's account after the purchase of shares of Common Stock on the final Purchase Date of an Offering, then such remaining amount will not roll over to the next Offering and will instead be distributed in full to such Participant after the final Purchase Date of such Offering without interest (unless otherwise required by Applicable Law).

c. No Purchase Rights may be exercised to any extent unless the shares of Common Stock to be issued upon such exercise under the Plan are covered by an effective registration statement pursuant to the Securities Act and the Plan is in material compliance with all applicable U.S. federal and state, foreign and other securities, exchange control and other laws applicable to the Plan. If on a Purchase Date the shares of Common Stock are not so registered or the Plan is not in such compliance, no Purchase Rights will be exercised on such Purchase Date, and the Purchase Date will be delayed until the shares of Common Stock are subject to such an effective registration statement and the Plan is in material compliance, except that the Purchase Date will in no event be more than 27 months from the Offering Date. If, on the Purchase Date, as delayed to the maximum extent permissible, the shares of Common Stock are not registered and the Plan is not in material compliance with all Applicable Laws, as determined by the Company in its sole discretion, no Purchase Rights will be exercised and all accumulated but unused Contributions will be distributed to the Participants without interest (unless the payment of interest is otherwise required by Applicable Law).

9. Covenants of the Company.

The Company will seek to obtain from each U.S. federal or state, foreign or other regulatory commission, agency or other Governmental Body having jurisdiction over the Plan such authority as may be required to grant Purchase Rights and issue and sell shares of Common Stock thereunder unless the Company determines, in its sole discretion, that doing so is not practical or would cause the Company to incur costs that are unreasonable. If, after commercially reasonable efforts, the Company is unable to obtain the authority that counsel for the Company deems necessary for the grant of Purchase Rights or the lawful issuance and sale of Common Stock under the Plan, and at a commercially reasonable cost, the Company will be relieved from any liability for failure to grant Purchase Rights and/or to issue and sell Common Stock upon exercise of such Purchase Rights.

10. Designation of Beneficiary.

a. The Company may, but is not obligated to, permit a Participant to submit a form designating a beneficiary who will receive any shares of Common Stock and/or Contributions from the Participant's account under the Plan if the Participant dies before such shares and/or Contributions are delivered to the Participant. The Company may, but is not obligated to, permit the Participant to change such designation of beneficiary. Any such designation and/or change must be on a form approved by the Company.

b. If a Participant dies, and in the absence of a valid beneficiary designation, the Company will deliver any shares of Common Stock and/or Contributions to the executor or administrator of the estate of the Participant. If no executor or administrator has been appointed (to the knowledge of the Company), the Company, in its sole discretion, may deliver such shares of Common Stock and/or Contributions, without interest (unless the payment of interest is otherwise required by Applicable Law), to the Participant's spouse, dependents or relatives, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

11. Adjustments Upon Changes in Common Stock; Corporate Transactions.

a. In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and number of securities subject to, and the purchase price applicable to outstanding Offerings and Purchase Rights and (iii) the class(es) and number of securities that are the subject of the purchase limits under each ongoing Offering. The Board will make these adjustments, and its determination will be final, binding and conclusive.

b. In the event of a Corporate Transaction, then: (i) any surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) may assume or continue outstanding Purchase Rights or may substitute similar rights (including a right to acquire the same

consideration paid to the stockholders in the Corporate Transaction) for outstanding Purchase Rights, or (ii) if any surviving or acquiring corporation (or its parent company) does not assume or continue such Purchase Rights or does not substitute similar rights for such Purchase Rights, then (A) the Participants' accumulated Contributions will be used to purchase shares of Common Stock (rounded down to the nearest whole share) within ten business days (or such other period specified by the Board) prior to the Corporate Transaction under the outstanding Purchase Rights, and the Purchase Rights will terminate immediately after such purchase, or (B) the Board, in its discretion, may terminate any outstanding Offerings, cancel the outstanding Purchase Rights and refund the Participants' accumulated Contributions.

12. Amendment, Termination or Suspension of the Plan.

a. The Board may amend the Plan at any time in any respect the Board deems necessary or advisable. However, except as provided in Section 11(a) relating to Capitalization Adjustments, stockholder approval will be required for any amendment of the Plan for which stockholder approval is required by Applicable Law.

b. The Board may suspend or terminate the Plan at any time. No Purchase Rights may be granted under the Plan while the Plan is suspended or after it is terminated.

Any benefits, privileges, entitlements and obligations under any outstanding Purchase Rights granted before an amendment, suspension or termination of the Plan will not be materially impaired by any such amendment, suspension or termination except (i) with the consent of the person to whom such Purchase Rights were granted, (ii) as necessary to facilitate compliance with any laws, listing requirements, or governmental regulations (including, without limitation, the provisions of Section 423 of the Code and the regulations and other interpretive guidance issued thereunder relating to Employee Stock Purchase Plans) including without limitation any such regulations or other guidance that may be issued or amended after the date the Plan is adopted by the Board, or (iii) as necessary to obtain or maintain favorable tax, listing, or regulatory treatment. To be clear, the Board may amend outstanding Purchase Rights without a Participant's consent if such amendment is necessary to ensure that the Purchase Right and/or the Plan complies with the requirements of Section 423 of the Code with respect to the 423 Component or with respect to other Applicable Laws. Notwithstanding anything in the Plan or any Offering Document to the contrary, the Board will be entitled to: (i) establish the exchange ratio applicable to amounts withheld in a currency other than U.S. dollars; (ii) permit Contributions in excess of the amount designated by a Participant in order to adjust for mistakes in the Company's processing of properly completed Contribution elections; (iii) establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that amounts applied toward the purchase of Common Stock for each Participant properly correspond with amounts withheld from the Participant's Contributions; (iv) amend any outstanding Purchase Rights or clarify any ambiguities regarding the terms of any Offering to enable the Purchase Rights to qualify under and/or comply with Section 423 of the Code with respect to the 423 Component; and (v) establish other limitations or procedures as the Board determines in its sole discretion advisable that are consistent with the Plan. The actions of the Board pursuant to this paragraph will not be considered to alter or impair any Purchase Rights granted under an Offering as they are part of the initial terms of each Offering and the Purchase Rights granted under each Offering.

13. Tax Qualification; Tax Withholding.

a. Although the Company may endeavor to (i) qualify a Purchase Right for special tax treatment under the laws of the United States or jurisdictions outside of the United States or (ii) avoid adverse tax treatment, the Company makes no representation to that effect and expressly disavows any covenant to maintain special or to avoid unfavorable tax treatment, notwithstanding anything to the contrary in this Plan. The Company will be unconstrained in its corporate activities without regard to the potential negative tax impact on Participants.

b. Each Participant will make arrangements, satisfactory to the Company and any applicable Related Corporation, to enable the Company or the Related Corporation to fulfill any withholding obligation for Tax-Related Items. Without limitation to the foregoing, in the Company's sole discretion and subject to Applicable Law, such withholding obligation may be satisfied in whole or in part by (i) withholding from the Participant's salary or any other cash payment due to the Participant from the Company or a Related Corporation; (ii) withholding from the proceeds of the sale of shares of Common Stock acquired under the Plan, either through a voluntary sale or a mandatory sale arranged by the

Company; or (iii) any other method deemed acceptable by the Board. The Company shall not be required to issue any shares of Common Stock under the Plan until such obligations are satisfied.

14. **Effective Date of Plan.**

The Plan will become effective upon the Effective Date. No Purchase Rights will be exercised unless and until the Plan has been approved by the stockholders of the Company, which approval must be within 12 months before or after the date the Plan is adopted (or if required under Section 12(a) above, materially amended) by the Board.

15. **Miscellaneous Provisions.**

- a. Proceeds from the sale of shares of Common Stock pursuant to Purchase Rights will constitute general funds of the Company.
- b. A Participant will not be deemed to be the holder of, or to have any of the rights of a holder with respect to, shares of Common Stock subject to Purchase Rights unless and until the Participant's shares of Common Stock acquired upon exercise of Purchase Rights are recorded in the books of the Company (or its transfer agent).
- c. The Plan and Offering do not constitute an employment contract. Nothing in the Plan or in the Offering will in any way alter the at will nature of a Participant's employment or amend a Participant's employment contract, if applicable, or be deemed to create in any way whatsoever any obligation on the part of any Participant to continue in the employ of the Company or a Related Corporation or an Affiliate, or on the part of the Company, a Related Corporation or an Affiliate to continue the employment of a Participant.
- d. The provisions of the Plan will be governed by the laws of the State of Delaware without resort to that state's conflicts of laws rules.
- e. If any particular provision of the Plan is found to be invalid or otherwise unenforceable, such provision will not affect the other provisions of the Plan, but the Plan will be construed in all respects as if such invalid provision were omitted.
- f. If any provision of the Plan does not comply with Applicable Law, such provision shall be construed in such a manner as to comply with Applicable Law.

16. **Definitions.**

As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

- a. **"423 Component"** means the part of the Plan, which excludes the Non-423 Component, pursuant to which Purchase Rights that satisfy the requirements for an Employee Stock Purchase Plan may be granted to Eligible Employees.
- b. **"Affiliate"** means any entity, other than a Related Corporation, whether now or subsequently established, which is at the time of determination, a "parent" or "subsidiary" of the Company as such terms are defined in Rule 405 promulgated under the Securities Act. The Board may determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.
- c. **"Applicable Law"** means the Code and any applicable U.S. or non-U.S. securities, federal, state, foreign, material local or municipal or other law, statute, constitution, principle of common law, resolution, ordinance, code, edict, decree, rule, listing rule, regulation, judicial decision, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Body (including under the authority of any applicable self-regulating organization such as The Nasdaq Stock Market LLC, New York Stock Exchange or the Financial Industry Regulatory Authority, Inc.).
- d. **"Board"** means the board of directors of the Company.
- e. **"Capitalization Adjustment"** means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Purchase Right

after the date the Plan is adopted by the Board without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other similar equity restructuring transaction, as that term is used in Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

f. “*Code*” means the U.S. Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

g. “*Committee*” means a committee of one or more members of the Board to whom authority has been delegated by the Board in accordance with Section 2(c).

h. “*Common Stock*” means the common stock of the Company.

i. “*Company*” means Organovo Holdings, Inc., a Delaware corporation.

j. “*Contributions*” means the payroll deductions and other additional payments specifically provided for in the Offering that a Participant contributes to fund the exercise of a Purchase Right. A Participant may make additional payments into his or her account if specifically provided for in the Offering, and then only if the Participant has not already had the maximum permitted amount withheld during the Offering through payroll deductions. In no event may payroll deductions exceed 15% of the Participant’s base wages.

k. “*Corporate Transaction*” means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

i. a sale or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its subsidiaries;

ii. a sale or other disposition of more than 50% of the outstanding securities of the Company;

iii. a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

iv. a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

l. “*Designated 423 Corporation*” means any Related Corporation selected by the Board to participate in the 423 Component.

m. “*Designated Company*” means any Designated Non-423 Corporation or Designated 423 Corporation, provided, however, that at any given time, a Related Corporation participating in the 423 Component shall not be a Related Corporation participating in the Non-423 Component.

n. “*Designated Non-423 Corporation*” means any Related Corporation or Affiliate selected by the Board to participate in the Non-423 Component.

o. “*Director*” means a member of the Board.

p. “*Effective Date*” means the date as of which the Plan is adopted by the Board and approved by the stockholders of the Company in accordance with Section 14.

q. “*Eligible Employee*” means an Employee who meets the requirements set forth in the document(s) governing the Offering for eligibility to participate in the Offering, provided that such Employee also meets the requirements for eligibility to participate set forth in the Plan.

r. **“Employee”** means any person, including an Officer or Director, who is “employed” for purposes of Section 423(b)(4) of the Code by the Company or a Related Corporation, or solely with respect to the Non-423 Component, an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an “Employee” for purposes of the Plan.

s. **“Employee Stock Purchase Plan”** means a plan that grants Purchase Rights intended to be options issued under an “employee stock purchase plan,” as that term is defined in Section 423(b) of the Code.

t. **“Exchange Act”** means the U.S. Securities Exchange Act of 1934, as amended and the rules and regulations promulgated thereunder.

u. **“Fair Market Value”** means, as of any date, the value of the Common Stock determined as follows:

i. If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock will be the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in such source as the Board deems reliable. Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing sales price on the last preceding date for which such quotation exists.

ii. In the absence of such markets for the Common Stock, the Fair Market Value will be determined by the Board in good faith in compliance with Applicable Laws and regulations and, to the extent applicable as determined in the sole discretion of the Board, in a manner that complies with Sections 409A of the Code.

v. **“Governmental Body”** means any: (a) nation, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or regulatory body, or quasi-governmental body of any nature (including any governmental division, department, administrative agency or bureau, commission, authority, instrumentality, official, ministry, fund, foundation, center, organization, unit, body or entity and any court or other tribunal, and for the avoidance of doubt, any tax authority) or other body exercising similar powers or authority; or (d) self-regulatory organization (including The Nasdaq Stock Market LLC, New York Stock Exchange, and the Financial Industry Regulatory Authority, Inc.).

w. **“Non-423 Component”** means the part of the Plan, which excludes the 423 Component, pursuant to which Purchase Rights that are not intended to satisfy the requirements for an Employee Stock Purchase Plan may be granted to Eligible Employees.

x. **“Offering”** means the grant to Eligible Employees of Purchase Rights, with the exercise of those Purchase Rights automatically occurring at the end of one or more Purchase Periods. The terms and conditions of an Offering will generally be set forth in the **“Offering Document”** approved by the Board for that Offering.

y. **“Offering Date”** means a date selected by the Board for an Offering to commence.

z. **“Officer”** means a person who is an officer of the Company or a Related Corporation within the meaning of Section 16 of the Exchange Act.

aa. **“Participant”** means an Eligible Employee who holds an outstanding Purchase Right.

bb. **“Plan”** means this Organovo Holdings, Inc. 2023 Employee Stock Purchase Plan, as amended from time to time, including both the 423 Component and the Non-423 Component.

cc. **“Purchase Date”** means one or more dates during an Offering selected by the Board on which Purchase Rights will be exercised and on which purchases of shares of Common Stock will be carried out in accordance with such Offering.

dd. “*Purchase Period*” means a period of time specified within an Offering, generally beginning on the Offering Date or on the first Trading Day following a Purchase Date, and ending on a Purchase Date. An Offering may consist of one or more Purchase Periods.

ee. “*Purchase Right*” means an option to purchase shares of Common Stock granted pursuant to the Plan.

ff. “*Related Corporation*” means any “parent corporation” or “subsidiary corporation” of the Company whether now or subsequently established, as those terms are defined in Sections 424(e) and (f), respectively, of the Code.

gg. “*Securities Act*” means the U.S. Securities Act of 1933, as amended.

hh. “*Tax-Related Items*” means any income tax, social insurance, payroll tax, fringe benefit tax, payment on account or other tax-related items arising out of or in relation to a Participant’s participation in the Plan, including, but not limited to, the exercise of a Purchase Right and the receipt of shares of Common Stock or the sale or other disposition of shares of Common Stock acquired under the Plan.

ii. “*Trading Day*” means any day on which the exchange(s) or market(s) on which shares of Common Stock are listed, including but not limited to the New York Stock Exchange, the Nasdaq Global Select Market, the Nasdaq Global Market, the Nasdaq Capital Market or any successors thereto, is open for trading.

Annex B

Proposed Amendment to Article IX of our Certificate of Incorporation

The following language shows the changes to our Certificate of Incorporation that would result from the proposed amendment to reflect new Delaware law provisions regarding officer exculpation, if approved, with additions indicated by underlining.

ARTICLE IX

To the fullest extent permitted by the DGCL, as it presently exists or may hereafter be amended from time to time, a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

To the fullest extent permitted by the DGCL, as it presently exists or may hereafter be amended from time to time, an officer of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as an officer. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of officers, then the liability of an officer of the corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Neither any amendment nor repeal of this Article, nor the adoption of any provision of this corporation's Certificate of Incorporation inconsistent with this Article, shall eliminate or reduce the effect of this Article in respect of any matter occurring, or any cause of action, suit or proceeding accruing or arising or that, but for this Article, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

ORGANOVO HOLDINGS, INC.
11555 SORRENTO VALLEY ROAD, SUITE 100
SAN DIEGO, CA 92121



VOTE BY INTERNET
Before The Meeting - Go to www.proxyvote.com or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time on September 13, 2023. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/ONVO2023

You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time September 13, 2023. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

V20760-P95819

KEEP THIS PORTION FOR YOUR RECORDS
DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

<p>ORGANOVO HOLDINGS, INC. The Board of Directors recommends you vote FOR the following:</p>											
1.	To elect each of Keith Murphy and Adam Stern as a Class III director to hold office until the 2026 Annual Meeting of Stockholders and until his respective successor is elected and qualified.										
	<table border="0"> <tr> <td>Nominees:</td> <td>For</td> <td>Withhold</td> </tr> <tr> <td>1a. Keith Murphy</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>1b. Adam Stern</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	Nominees:	For	Withhold	1a. Keith Murphy	<input type="checkbox"/>	<input type="checkbox"/>	1b. Adam Stern	<input type="checkbox"/>	<input type="checkbox"/>	
Nominees:	For	Withhold									
1a. Keith Murphy	<input type="checkbox"/>	<input type="checkbox"/>									
1b. Adam Stern	<input type="checkbox"/>	<input type="checkbox"/>									
<p>The Board of Directors recommends you vote FOR proposals 2, 3, 4 and 5.</p>											
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, 2024.	<input type="checkbox"/>	<input type="checkbox"/>								
3.	To approve, on an advisory basis, the compensation of our named executive officers.	<input type="checkbox"/>	<input type="checkbox"/>								
4.	To approve the Organovo Holdings, Inc. 2023 Employee Stock Purchase Plan.	<input type="checkbox"/>	<input type="checkbox"/>								
5.	To approve an amendment to our Certificate of Incorporation, as amended, to reflect new Delaware law provisions regarding officer exculpation.	<input type="checkbox"/>	<input type="checkbox"/>								
<p>NOTE: In their discretion, the proxies are authorized to vote upon such other business as may properly come before the meeting or any adjournment thereof.</p>											
<p>Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.</p>											
<input type="text"/> Signature [PLEASE SIGN WITHIN BOX]		<input type="text"/> Date									
<input type="text"/> Signature (Joint Owners)		<input type="text"/> Date									

You are cordially invited to attend our 2023 Annual Meeting of Stockholders, to be held virtually via live webcast at www.virtualshareholdermeeting.com/ONVO2023 at 9:00 a.m. Pacific Time on September 14, 2023.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:
The Notice and Proxy Statement and Annual Report are available at www.proxyvote.com.

V20761-P95819

**ORGANOVO HOLDINGS, INC.
Annual Meeting of Stockholders
September 14, 2023, 9:00 a.m. Pacific Time
This proxy is solicited by the Board of Directors**

The undersigned hereby appoints Keith Murphy and Tom Jurgensen, or either of them, as proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this proxy, all of the shares of Common Stock of ORGANOVO HOLDINGS, INC. that the undersigned is entitled to vote at the Annual Meeting of Stockholders to be held at 9:00 a.m. Pacific Time on September 14, 2023, via live webcast at www.virtualshareholdermeeting.com/ONVO2023 and any adjournment or postponement thereof.

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED IN THE MANNER DIRECTED HEREIN. IF NO SUCH DIRECTION IS MADE, THIS PROXY WILL BE VOTED "FOR" THE NOMINEES FOR THE BOARD OF DIRECTORS LISTED IN PROPOSAL 1 ON THE REVERSE SIDE AND "FOR" PROPOSALS 2, 3, 4 AND 5.

This Proxy is governed by the laws of the State of Delaware.

Continued and to be signed on reverse side

