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

July 26, 2022

Dear Stockholder:

You are cordially invited to attend this year's Annual Meeting of Stockholders of Organovo Holdings, Inc. on Wednesday, September 7, 2022 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/ONVO2022.**

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

On July 26, 2022, we mailed a Notice of Internet Availability of Proxy Materials (the "Notice") to our stockholders (other than those who previously requested electronic or paper delivery) containing instructions on how to access our proxy materials, including our Proxy Statement and Annual Report to Stockholders for the fiscal year ended March 31, 2022, over the internet. The Notice also provides instructions on how to vote online or by telephone and includes instructions on how you can receive a paper copy of the proxy materials by mail. If you receive your proxy materials by mail, the Annual Report, the Notice of 2022 Annual Meeting of Stockholders, the Proxy Statement, and proxy card will be enclosed.

The matters to be acted upon are described in the Notice of 2022 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, if you received paper copies of the proxy materials by mail, you can also vote by mail by following the instructions on your proxy card. If you 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 written in a cursive, flowing style.

Keith Murphy
Executive Chairman

ORGANOVO HOLDINGS, INC. NOTICE OF 2022 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON SEPTEMBER 7, 2022

To Our Stockholders:

The 2022 Annual Meeting of Stockholders (the “Annual Meeting”) of Organovo Holdings, Inc. (“we,” “us,” “our,” “Organovo” or the “Company”) will be held on Wednesday, September 7, 2022, 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/ONVO2022.** At the Annual Meeting, our stockholders will be asked:

1. To elect each of Douglas Jay Cohen and David Gobel as a Class II director to hold office until the 2025 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, 2023;
3. To approve, on an advisory basis, the compensation of our named executive officers;
4. To approve the Organovo Holdings, Inc. 2022 Equity Incentive Plan; and
5. To transact such other business as may properly be brought before the Annual Meeting or any adjournments or postponements thereof.

Our Board of Directors recommends a vote **FOR** each of the director nominees, and **FOR** proposals 2, 3 and 4 listed above. Stockholders of record at the close of business on July 15, 2022 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 instructions in the Notice of Internet Availability of Proxy Materials or the proxy card. If you hold your shares through an account with a brokerage firm, bank or other nominee, please follow the instructions you receive from them to vote your shares.

Important Notice Regarding Availability of Proxy Materials for the Annual Meeting: Our Notice of 2022 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

July 26, 2022



2022 Proxy Statement Summary

To assist you in reviewing the Proxy Statement for the Organovo Holdings, Inc. (“we,” “us,” “our,” “Organovo” or the “Company”) 2022 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 instructions in the Notice of Internet Availability of Proxy Materials or 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 7, 2022 at 9:00 a.m. (Pacific Daylight Time)
Place:	www.virtualshareholdermeeting.com/ONVO2022
Record Date:	July 15, 2022
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/ONVO2022, 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 Notice of Internet Availability or proxy card (if you requested and received a printed copy of the proxy materials) to access the Annual Meeting.</p>

Proposals and Voting Recommendations

	Board Vote Recommendation	Page References (for more detail)
Proposals:		
(1) Election of two Class II directors each to hold office until the 2025 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, 2023.	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. 2022 Equity Incentive Plan.	FOR	12 – 23

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
Review Board and Board Committee Independence and Qualifications	Annual
Board Self-Evaluation	Periodic
Review Board and Board Committee Independence and Qualifications	Annual
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 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. The Compensation Committee retained Anderson Pay Advisors LLC (“Anderson”) as its independent compensation consultants, to assist it in evaluating the Company’s executive compensation program for the fiscal year ended March 31, 2022 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 2022 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD SEPTEMBER 7, 2022

This Proxy Statement, along with a proxy card, is being made available to our stockholders on or about July 26, 2022

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 2022 Annual Meeting of Stockholders (the “Annual Meeting”) to be held virtually on Wednesday, September 7, 2022 at 9:00 a.m. (Pacific Daylight Time) via live webcast by visiting www.virtualshareholdermeeting.com/ONVO2022. References in this Proxy Statement to the “Company,” “Organovo,” “we,” “our” and “us” are to Organovo Holdings, Inc. and its subsidiaries.

In accordance with the rules of the Securities and Exchange Commission (the “SEC”), we are permitted to furnish proxy materials, including this Proxy Statement and our Annual Report for the fiscal year ended March 31, 2022 (the “Annual Report”), to stockholders by providing access to these documents through the internet instead of mailing printed copies. Most stockholders will not receive printed copies of the proxy materials unless requested. Instead, the Notice of Internet Availability of Proxy Materials provides instructions on how to access and review the proxy materials on the internet. The Notice of Internet Availability of Proxy Materials also provides instructions on how to cast your vote via the internet or by telephone. If you would like to receive a printed or email copy of our proxy materials, please follow the instructions for requesting the materials in the Notice of Internet Availability of Proxy Materials.

Record Date

Holders of shares of our common stock, our only class of issued and outstanding voting securities, at the close of business on July 15, 2022 (the “Record Date”) are entitled to vote on the proposals presented at the Annual Meeting. As of July 15, 2022, we had 8,711,953 issued and outstanding shares of common stock.

Quorum

The presence, in person or by proxy, of the holders of at least 2,903,985 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/ONVO2022, 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 Wednesday, September 7, 2022. 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 Notice of Internet Availability or proxy card (if you requested and received a printed copy of the proxy materials) 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/ONVO2022, 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 and 4.

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

1. To elect each of Douglas Jay Cohen and David Gobel as a Class II director to hold office until the 2025 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, 2023;
3. To approve, on a non-binding advisory basis, the compensation of our named executive officers; and
4. To approve the Organovo Holdings, Inc. 2022 Equity Incentive Plan (the “Plan”).

Our Board of Directors recommends a vote **FOR** each of the director nominees and **FOR** proposals 2, 3 and 4 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 Director

Under our certificate of incorporation, as amended (the “Certificate of Incorporation”), and bylaws, as amended (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. Cohen and Mr. Gobel 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 DOUGLAS JAY COHEN AND DAVID GOBEL AS CLASS II 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, 2023.

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 – Vote to Approve the Organovo Holdings, Inc. 2022 Equity Incentive Plan

If a quorum is present, the proposal to approve the Plan 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 ORGANOVO HOLDINGS, INC. 2022 EQUITY INCENTIVE PLAN.

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 Notice of Internet Availability of Proxy Materials and the proxy card at any time up until 11:59 p.m., Eastern Time, on September 6, 2022.
- **By Telephone:** by following the telephone voting instructions included on the Notice of Internet Availability of Proxy Materials and the proxy card at any time up until 11:59 p.m., Eastern Time, on September 6, 2022.
- **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

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 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, 2023, (iii) in favor of the non-binding advisory vote on the compensation of our named executive officers, and (iv) in favor of approving the Organovo Holdings, Inc. 2022 Equity Incentive Plan; and in the discretion of the proxy holders on any other matter that comes before the meeting.

If your shares are held by a broker, bank or other stockholder of record, in nominee name or otherwise, exercising fiduciary powers (typically referred to as being held in "street name"), you may receive a separate voting instruction form with this Proxy Statement. Your broker may vote your shares on 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 II directors, Proposal 3, the non-binding advisory vote on the compensation of our named executive officers, or Proposal 4, the approval of the Organovo Holdings, Inc. 2022 Equity Incentive Plan, 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 6, 2022, (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 6, 2022), or (iv) by virtually attending the Annual Meeting and voting electronically by going to www.virtualshareholdermeeting.com/ONVO2022 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, Notice 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. Cohen and Mr. Gobel has an interest in Proposal 1, the election of Mr. Cohen and Mr. Gobel as Class II directors, as each of them is currently a member of the Board. 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 and our executive officers will be eligible to receive awards under the Plan, and they therefore have an interest in Proposal 4

PROPOSAL 1: ELECTION OF DIRECTOR

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:

<u>2022 Annual Meeting</u>	<u>2023 Annual Meeting</u>	<u>2024 Annual Meeting</u>
Douglas Jay Cohen	Keith Murphy	Alison Tjosvold Milhous
David Gobel	Adam Stern	Vaidehi Joshi

Proposal to Elect Two Directors to Hold Office for Three Years until the 2025 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 2025 Annual Meeting of Stockholders and until his respective successor is duly elected and qualified.

<u>Name</u>	<u>Age</u>	<u>Director Since</u>	<u>Principal Occupation</u>	<u>Experience/ Qualifications</u>	<u>Current Committee Membership</u>	<u>Independent?</u>
Douglas Jay Cohen	51	2020	President and Chief Executive Officer of IR Medtek LLC	Leadership, Industry, Strategy, Corporate Finance	- Audit Committee - Compensation Committee - Nominating and Corporate Governance Committee	Yes
David Gobel	69	2020	Chief Executive Officer of Methuselah Fund LLC and Methuselah Foundation	Leadership, Industry, Strategy, Corporate Finance	- Compensation Committee - Nominating and Corporate Governance Committee - Science & Technology 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 25-27 in this Proxy Statement.

Vote Required

Under our Certificate of Incorporation and 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. Cohen and Mr. Gobel 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 DOUGLAS JAY COHEN AND DAVID GOBEL.

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 Douglas Jay Cohen and David Gobel.

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, 2023. 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, 2023. 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 2022 and Fiscal 2021.

	Fiscal Year 2022	Fiscal Year 2021
Audit fees	\$ 310,120	\$ 312,029
Audit-related fees	—	—
Tax fees	24,764	31,027
All other fees	—	—
Total	<u>\$ 334,884</u>	<u>\$ 343,056</u>

Audit Fees: For the fiscal years ended March 31, 2022 and 2021, 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, 2022 and 2021, 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, 2022 and 2021, 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, 2022 and 2021, 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, 2023.

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 2022 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. 2022 EQUITY INCENTIVE PLAN

At the Annual Meeting, our stockholders will be asked to approve the Organovo Holdings, Inc. 2022 Equity Incentive Plan (the “Plan”). The Board adopted the Plan on July 25, 2022, subject to approval by our stockholders at the Annual Meeting. If approved by our stockholders, the Plan will become effective as of the date of the Annual Meeting and will replace our current plan, the Organovo Holdings, Inc. 2012 Equity Incentive Plan (the “2012 Plan”), and we will cease granting awards under the 2012 Plan and any shares remaining available for future issuance under the 2012 Plan will be cancelled and will no longer be available for future issuance; however, the 2012 Plan will in any event continue to govern awards previously granted under it. An aggregate of 1,363,000 shares of our common stock have initially been reserved for issuance under the Plan. We commit to reduce the new Plan share reserve by the number of shares that we grant under the 2012 Plan and our Organovo Holdings, Inc. 2021 Inducement Equity Incentive Plan (our “2021 Inducement Plan”) between July 15, 2022 and September 7, 2022 (the Annual Meeting date), unless the proposal to adopt the Plan (this Proposal No. 4) is not approved by our stockholders at the Annual Meeting. In addition, if the Plan is approved by our stockholders at the Annual Meeting, we commit to reduce the aggregate number of shares of our common stock issuable pursuant to our 2021 Inducement Plan from 750,000 shares to 51,000 shares (which includes 50,000 shares of our common stock issuable pursuant to an outstanding option to purchase common stock with an exercise price of \$2.75 per share, leaving only 1,000 shares available for future issuance under our 2021 Inducement Plan).

The Board believes that the future success of the Company depends on our ability to attract and retain the best available employees and that the ability to grant equity awards is a necessary and powerful recruiting and retention tool for the Company. The Company’s personnel are our most valuable assets. We believe that equity awards motivate high levels of performance, align the interests of our personnel and stockholders by giving our personnel an opportunity to hold an ownership stake in the Company, and provide an effective means of recognizing their contributions to the success of the Company.

If our stockholders do not approve the Plan, the Plan will not become effective. In that case, the 2012 Plan will continue to be administered in its current form and will expire on July 26, 2028, unless sooner terminated by the Board. As discussed below, the Plan includes features that are designed to protect the interests of our stockholders and we therefore believe it is beneficial for our stockholders to approve the Plan and to discontinue the use of the 2012 Plan. As of July 15, 2022, an aggregate of 1,336,674 shares remain available for issuance under our equity incentive plans (excluding our 2016 Employee Stock Purchase Plan (the “ESPP”)), comprised of 636,674 shares available for issuance under the 2012 Plan and 700,000 shares available for issuance under our 2021 Inducement Plan. However, as noted above, if the Plan is approved by our stockholders at the Annual Meeting, we commit to reduce the aggregate number of shares of our common stock issuable pursuant to our 2021 Inducement Plan from 750,000 shares to 51,000 shares (which includes 50,000 shares of our common stock issuable pursuant to an outstanding option to purchase common stock with an exercise price of \$2.75 per share, leaving only 1,000 shares available for future issuance under our 2021 Inducement Plan). As of July 15, 2022, an aggregate of 1,291,460 shares were subject to outstanding awards granted pursuant to our equity incentive plans, comprised of stock options to purchase 1,277,330 shares and 14,130 shares subject to restricted stock unit awards. The per share weighted-average exercise price of the outstanding stock options is \$7.10 and the weighted average remaining term of the outstanding options was 8.48 years.

We Have Used our 2012 Plan and 2021 Inducement Plan Responsibly and Intend to Use the Plans Responsibly

We recognize the dilutive impact of our equity compensation on our stockholders and continuously strive to balance this concern with the competition for talent. If approved, the new shares reserved under the Plan would represent approximately 15.6% of our 8,711,953 outstanding shares as of July 15, 2022. Our Board believes the potential dilution to stockholders is reasonable and sustainable to meet our business goals. The 1,363,000 shares newly reserved for issuance under the Plan are expected to provide us with sufficient shares to cover the awards to be granted over the next 2.5 years, assuming we continue to grant awards consistent with our historical usage and current practices, as reflected in our recent historical burn rate under the 2012 Plan and the 2021 Inducement Plan as discussed below, and noting that future circumstances may require us to change our current equity grant practices. If the Plan is approved, the share reserve under the Plan could last for a longer or shorter period of time, depending upon our future equity grant practices, which we cannot predict with any degree of certainty at this time. In

determining the share reserve for the Plan, the Compensation Committee and the Board took into account, among other things, our stock price and volatility, share usage, burn rate and the existing terms of our outstanding awards.

Gross burn rate can be used by some to assess a company's use of equity compensation. Gross burn rate is defined as the number of shares underlying equity awards granted in a given fiscal year (excluding any RSUs assumed in acquisitions) divided by the number of shares of weighted average common stock outstanding ("CSO").

Potential actual dilution to stockholders is often measured by analyzing the net burn rate. Net burn rate is defined as (i) the number of shares underlying equity awards granted in a given fiscal year minus shares subject to outstanding equity awards forfeited during the year and returned to the plan, divided by (ii) CSO. This measure indicates the rate at which we actually create potential future stockholder dilution. We have managed our net burn rate under the 2012 Plan and 2021 Inducement Plan to -1% in Fiscal 2020, 12% in Fiscal 2021, and 2% in Fiscal 2022. The low burn rate in Fiscal 2020 is due to a number of shares being returned to the 2012 Plan as a result of forfeitures of awards related to our restructuring efforts during Fiscal 2020. The increased burn rate in Fiscal 2021 is due to accelerated vesting for our former executives related to the change in control that occurred in September 2020. The burn rate in Fiscal 2022 represents the recent equity award activity under our current management and business initiatives, and we therefore believe that our Fiscal 2022 burn rate is most representative of our usage of the 2021 Plan and expected usage of the Plan (if approved by our stockholders) in the coming years.

The following table shows our gross and net burn rate over the past three fiscal years and the average CSO of those three years under the 2012 Plan and 2021 Inducement Plan.

	Fiscal 2020	Fiscal 2021	Fiscal 2022	Average
Restricted stock units ("RSUs") granted(1)	29,295	20,000	—	16,432
Performance-based restricted stock units ("PSUs") granted but not earned	301,391	—	—	100,464
PSUs earned	—	185,415	12,229	65,881
Options granted(2)	17,125	606,875	353,546	325,849
Performance options granted but not earned	—	145,000	182,500	109,167
Performance options earned	—	—	37,500	12,500
Total awards granted(3)	347,811	957,290	585,775	630,292
Weighted average common stock outstanding	6,477,808	6,902,000	8,703,596	7,361,135
Gross Burn Rate	5%	14%	7%	9%
Forfeitures of Options	237,184	117,400	374,530	243,038
Forfeitures of PSUs	111,682	—	—	37,227
Forfeitures of RSUs	81,070	6,248	—	29,106
Net Burn Rate	-1%	12%	2%	4%

(1) Excludes PSUs.

(2) Excludes performance options.

(3) Includes all categories above.

Key Features Designed to Protect Stockholders' Interests

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

- **Maximum Number of Shares/No Annual "Evergreen" Provision.** The maximum number of shares available for issuance under the Plan is fixed and cannot be increased without stockholder approval. There is no annual "evergreen" whereby the number of shares available under the Plan will be automatically increased each year.

- **Award Design Flexibility.** Different kinds of awards may be granted under the Plan, giving us the flexibility to design our equity incentives to complement the other elements of compensation and to support our attainment of strategic goals.
- **Performance-Based Awards.** The Plan permits the grant of performance-based stock awards that are payable only upon the attainment of specified performance criteria.
- **No Liberal Definition of Change in Control.** The Plan's definition of a change-in-control transaction provides that any award benefits triggered by such a transaction are contingent upon the actual consummation of the transaction, not merely its approval by our Board or stockholders.
- **No Single-Trigger Vesting Acceleration upon a Change in Control for Employees and Consultants.** Awards under the Plan will be treated in a change in control (as defined in the Plan) in the manner determined by the administrator, and except for awards granted to our non-employee directors for their service as non-employee directors, the terms of the Plan provide for no automatic vesting of awards upon a change in control unless the award is not assumed or substituted.
- **Repricing is Not Allowed Without Stockholder Approval.** The Plan does not permit awards to be repriced or exchanged for other awards unless stockholders approve the repricing or exchange.
- **Clawback.** Each award under the Plan and any other incentive compensation paid to a participant will be subject to our clawback policy that was in effect when the Plan was adopted and any clawback policy that we establish or amend to comply with applicable laws, and the administrator may require a participant to forfeit, return, or reimburse all or a portion of the award or other compensation and any amounts paid under the award or other compensation to comply with such clawback policy or applicable laws.
- **No Tax Gross-ups.** The Plan does not provide for any tax gross-ups.
- **No Liberal Share Counting or Recycling.** Shares used to pay the exercise price or purchase price of an award granted under the Plan or to satisfy tax withholding obligations for an award granted under the Plan will not become available for future grant under the Plan.
- **Fungible Share Counting.** The Plan provides that each share issued pursuant to a full value award reduces the number of shares available for grant under the Plan by 1.15 shares.
- **Limited Transferability.** Awards under the Plan generally may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner, unless otherwise approved by the administrator (on such terms as the administrator deems appropriate) or required by applicable laws.
- **Reasonable Annual Limits on Non-Employee Director Compensation.** The Plan sets limits on the total compensation that a non-employee director may receive for service as a non-employee director during each fiscal year.
- **No Dividends on Unvested Awards.** No dividends or other distributions may be paid with respect to any Shares underlying the unvested portion of an Award.
- **Minimum Vesting Requirement.** The Plan provides that Awards (other than cash-based Awards) may vest no earlier than the first anniversary of the grant date (or the date of commencement of employment or service, in the case of a grant made in connection with a participant's commencement of employment or service), subject to certain exceptions set forth in the Plan relating to (i) substituted awards, (ii) Shares delivered in lieu of fully vested cash obligations, (iii) Awards granted to non-employee directors that are not covered by clause (ii) above and that vest on the earlier of the one-year anniversary of the grant date and the day prior to the next Annual Meeting of Stockholders that occurs before such first anniversary, and (iv) Awards with respect to a maximum of 5% of the number of Shares authorized for issuance under the Plan.

Summary of the Plan

The following paragraphs summarize the principal features of the Plan and its operation. However, this summary is not a complete description of the provisions of the Plan and is qualified in its entirety by the specific language of the Plan. A copy of the Plan is provided as Appendix A to this proxy statement.

Purpose of the Plan

We adopted the Plan to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentives to employees, directors and consultants, and to promote the success of our business. These incentives can be provided through the grant of stock options, stock appreciation rights, restricted stock, restricted stock units, performance units, and performance shares.

Shares Available for Issuance

Subject to the adjustment provisions in the Plan, our stockholders are being asked to approve a number of shares for issuance under the Plan equal to (a) 1,363,000 new shares plus (b) any shares subject to awards granted under the 2012 Plan that, on or after the date our stockholders initially approve the Plan, expire or otherwise terminate without having been exercised or issued in full or that are forfeited to or repurchased by us due to failure to vest, with the maximum number of shares to be added under the foregoing clause equal to 1,241,460 shares. If we substitute equity awards for equity awards of acquired entities in connection with mergers, reorganizations, separations, or other transactions as described in the Plan, the grant of such substituted awards will not decrease the number of shares available for issuance under the Plan. Shares may be authorized, but unissued, or reacquired common stock. For purposes of the Plan, each share issued with respect to Awards, other than stock options or stock appreciation rights, will be counted against the aggregate share reserve as 1.15 shares. Each share issued with respect to a stock option or stock appreciation right will be counted against the aggregate share reserve as one share.

If an award granted under the Plan expires without having been exercised in full or is forfeited to or repurchased by us, then the expired, unexercised, forfeited, or repurchased shares subject to that award will become available for future grant or sale under the Plan. Upon exercise of a stock appreciation right settled in shares, the gross number of shares covered by the portion of the stock appreciation right so exercised will cease to be available under the Plan. Shares actually issued under the Plan under any award will not be returned to the Plan and will not become available for future grant or sale under the Plan; provided, however, that if unvested shares of restricted stock, restricted stock units, performance shares or performance units are repurchased by us or are forfeited to us, such shares will become available for future grant under the Plan. Shares used to pay the exercise price of an award or to satisfy tax withholding obligations related to an award will not become available for future grant or sale under the Plan. If an award is paid in cash rather than shares, such payment will not reduce the number of shares available for issuance under the Plan.

In the event of certain dividends or other distributions (whether in the form of cash, shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of shares or other securities or other change in the corporate structure affecting our shares, the Plan administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of shares that may be delivered under the Plan, and/or the number, class and price of shares of stock subject to outstanding awards, and the award grant limitations discussed above.

During the term of this Plan, we will at all times reserve and keep available a number of shares sufficient to satisfy the requirements of the Plan.

Limitations on Awards to Non-Employee Directors

The Plan also provides that no non-employee director may be paid compensation for service as a non-employee director in their capacity as a director that, in the aggregate, exceeds \$400,000 for any fiscal year of ours, increased to \$800,000 for the non-employee director for our fiscal year in which he or she joins our board of directors as a non-employee director. For these purposes, compensation includes equity awards (including any awards issued under the Plan), with the value of such equity awards measured based on their grant date fair value (determined under U.S. generally accepted accounting principles), and any other compensation (such as cash retainers or fees) for director service. Any award granted to a participant while he or she was an employee or a consultant (other than a non-employee director) will not count for this limitation.

Minimum Vesting Requirements

Any Awards that are payable in shares of our common stock under the Plan will vest no earlier than the first anniversary of the grant date of the Award (or the date of commencement of employment or service, in the case of a grant made in connection with a participant's commencement of employment or service), except that this limitation will not apply to: (i) substituted awards; (ii) shares of our common stock delivered in lieu of fully vested cash obligations; (iii) Awards granted to non-employee directors that are not covered by clause (ii) above and that vest on the earlier of the first anniversary of the grant date or the day prior to the next Annual Meeting of Stockholders that occurs before such first anniversary; and (iv) awards with respect to a maximum of 5% of the share reserved (subject to adjustment under the Plan). The administrator may also provide for accelerated vesting or exercisability of an award, including in connection with a participant's retirement, death, disability or in connection or following with a change in control.

Administration

Our Board, any committee of individuals satisfying applicable laws appointed by our Board, or any duly authorized committee of our Board will be the "administrator" of the Plan. Different administrators may administer the Plan with respect to different groups of service providers. To make grants to certain officers and key employees, the members of the committee must qualify as "non-employee directors" under Rule 16b-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

Subject to the terms of the Plan, the administrator has the authority to make any determinations and perform any actions that it deems necessary or advisable to administer the Plan, such as the authority to: determine the fair market value of a share, select the service providers who will receive awards; determine the number of shares covered by each award and the terms of each award; approve forms of award agreements for use with the Plan; interpret, modify or amend each award (subject to the repricing restrictions of the Plan), including to accelerate vesting or waive forfeiture restrictions; interpret the Plan; and delegate ministerial duties to any of our employees. The administrator may allow a participant to defer the receipt of payment of cash or delivery of shares otherwise due to such participant. The administrator may make rules and regulations relating to the Plan, including rules, regulations, and sub-plans to facilitate compliance with applicable non-U.S. laws, easing the administration of the Plan, and/or take advantage of tax-favorable treatment of awards granted to service providers outside the U.S., and may make all other determinations deemed necessary or advisable for administering the Plan.

Eligibility

All types of awards, other than incentive stock options, may be granted to our non-employee directors and to employees and consultants of ours or any parent or subsidiary corporation of ours. Incentive stock options may be granted only to employees of ours or any parent or subsidiary corporation of ours. As of July 15, 2022, we had approximately twenty employees (including one employee director), five non-employee directors and approximately one consultant that would be eligible to participate in the Plan.

Stock Options

An option gives a participant the right to purchase a specified number of shares for a fixed exercise price during a specified period. Each option granted under the Plan will be evidenced by an award agreement specifying the number of shares subject to the option and the other terms of the option, consistent with the Plan.

The exercise price per share of each option may not be less than the fair market value of a share on the date of grant (except, in the case of a nonstatutory stock option, as otherwise required by applicable laws). However, any incentive stock option granted to a person who at the time of grant owns stock representing more than 10% of the total combined voting power of all classes of our stock or any parent or subsidiary corporation of ours (a “10% stockholder”) must have an exercise price per share equal to at least 110% of the fair market value of a share on the date of grant. The aggregate fair market value of the shares (determined on the grant date) covered by incentive stock options which first become exercisable by any participant during any calendar year also may not exceed \$100,000. For this purpose, the fair market value of a share is generally the closing sales price of our stock, as reported on the primary stock exchange on which it is traded. On July 15, 2022, the closing price of a share on Nasdaq was \$2.71.

Options will be exercisable at such times or under such conditions as determined by the administrator and set forth in the award agreement. When a participant’s service ends, the unvested portion of the participant’s option generally expires. The vested portion of the option will remain exercisable for the period following the end of the participant’s service that was determined by the administrator and specified in the participant’s award agreement, and if no such period was specified in the award agreement, the vested portion of the option will remain exercisable for: (i) three months following the end of the participant’s service provider status for reasons other than death or disability or (ii) 12 months following the end of the participant’s service provider status due to death or disability. In addition, a participant’s award agreement may provide for an extension of the post-service exercise period if the participant’s service ends for reasons other than his or her death or disability and the exercise of the option following the termination of service would result in liability under Section 16(b) of the Exchange Act or would violate the registration requirements under the Securities Act of 1933, as amended (the “Securities Act”).

The term of an option will be specified in the award agreement, but the term of an option may not be more than 10 years (or five years for an incentive stock option granted to a 10% stockholder).

The administrator will determine the acceptable form(s) of consideration for exercising an option. An option will be deemed exercised when we receive the notice of exercise and full payment for the shares to be exercised, together with any amounts necessary to satisfy withholding obligations for tax-related items. At any time after the grant of an option, the administrator has the discretion to accelerate the time at which the option will vest or become exercisable.

Stock Appreciation Rights

A stock appreciation right gives a participant the right to receive the appreciation in the value of a share between the date an award is granted and the date it is exercised. Upon exercise of a stock appreciation right, the holder of the award will be entitled to receive an amount determined as the product of: (i) the difference between the fair market value of a share on the date of exercise and the exercise price per share and (ii) the number of shares covered by the exercised portion of the stock appreciation right. We may pay that amount in cash, shares, or a combination of both. Each stock appreciation right granted under the Plan will be evidenced by an award agreement specifying the exercise price and the other terms of the award.

The exercise price per share of each stock appreciation right may not be less than the fair market value of a share on the date of grant, unless otherwise required by applicable laws.

Stock appreciation rights will be exercisable at such times or under such conditions as determined by the administrator and set forth in the award agreement, but will in any event not have a term of greater than 10 years. The terms relating to the period of exercise of stock appreciation rights following the termination of a participant’s service are similar to those for options described above. At any time after the grant of a stock appreciation right, the

administrator has the discretion to accelerate the time at which the stock appreciation right will vest or become exercisable.

Restricted Stock Awards

Awards of restricted stock are rights to acquire or purchase shares that vest under the terms established by the administrator in its sole discretion. Unless the administrator provides otherwise, participants holding shares of restricted stock will have voting rights with respect to such shares without regard to vesting. After an award of restricted stock has been granted, the administrator has the discretion to reduce or waive any restrictions and to accelerate the time at which any restrictions will lapse or be removed.

Restricted Stock Units

A restricted stock unit represent a right to receive cash or shares if the performance goals or other vesting criteria set by the administrator are achieved or the restricted stock unit otherwise vests. Each award of restricted stock units granted under the Plan will be evidenced by an award agreement specifying the number of shares subject to the award and other terms of the award.

The administrator may set vesting conditions based upon the achievement of company-wide, divisional, business unit or individual goals (such as continued employment or service), applicable U.S. or non-U.S. federal or state securities laws, or any other basis determined by the administrator, in its discretion.

After an award of restricted stock units has been granted, the administrator has the discretion to reduce or waive any restrictions or vesting criteria that must be met to receive a payout or to accelerate the time at which any restrictions will lapse or be removed. A participant will forfeit any unearned restricted stock units on the date specified in the participant's award agreement. The administrator in its sole discretion may pay earned restricted stock units in cash, shares, or a combination of both.

Performance Units and Performance Shares

Performance units and performance shares are awards that will result in a payment to a participant only if performance goals established by the administrator are achieved or the awards otherwise vest. Performance units will have an initial value established by the administrator on or before the date of grant. Each performance share will have an initial value equal to the fair market value of a share on the grant date. Performance units and performance shares will result in a payment to a participant only if the performance goals or other vesting criteria set by the administrator are achieved or the awards otherwise vest.

Each award of performance units or performance shares granted under the Plan will be evidenced by an award agreement specifying the performance period and other terms of the award. The administrator may set vesting criteria based upon the achievement of company-wide, divisional, business unit or individual goals (such as continued employment or service), applicable U.S. or non-U.S. federal or state securities laws, or any other basis determined by the administrator, in its discretion.

After an award of performance units or performance shares has been granted, the administrator has the discretion to accelerate, reduce or waive any performance objectives or other vesting provisions for such performance units or performance shares.

The administrator has the discretion to pay earned performance units or performance shares in the form of cash, shares (which will have an aggregate fair market value equal to the earned performance units or performance shares at the close of the performance period), or a combination of both.

A participant will forfeit any performance units or performance shares not earned and not vested as of the date specified in the participant's award agreement.

Transferability of Awards

Unless otherwise specified by the administrator or required by applicable laws, awards are not transferable other than by will or by the laws of descent or distribution. The administrator may permit an award to be transferred (i) under a domestic relations order, official marital settlement agreement, or other divorce or separation agreement, or (ii) to the extent permitted by Form S-8 under the Securities Act and any other applicable laws. Any individual or entity to whom an award is transferred will be subject to all of the terms and conditions applicable to the participant who transferred the award, including the terms and conditions in the Plan and the award agreement. If an award is unvested, then the service of the participant will continue to determine whether the award will vest and when it will terminate.

Dissolution or Liquidation

In the event of our proposed dissolution or liquidation, the administrator will notify each participant as soon as practicable prior to the effective date of such proposed transaction. An award will terminate immediately prior to consummation of such proposed action to the extent the award has not been previously exercised.

Merger or Change in Control

The Plan provides that, in the event of a merger or change in control, each award will be treated as the administrator determines without a participant's consent. The administrator will not be required to treat all awards, all awards held by a participant, all awards of the same type, or all portions of awards the same in the transaction.

If an option or stock appreciation right (or its applicable portion) is not assumed or substituted for, the administrator will notify the participant in writing or electronically that the option or stock appreciation right will be exercisable for a period of time determined by the administrator, in its sole discretion, and the option or stock appreciation right (or its applicable portion) will terminate upon the expiration of such period.

For awards granted to each of our non-employee directors, in the event of a change in control, (i) the non-employee director will fully vest in and have the right to exercise all of his or her outstanding options and stock appreciation rights, (ii) all restrictions on the non-employee director's restricted stock and restricted stock units will lapse, and (iii) with respect to the non-employee director's awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at target levels and all other terms and conditions will be deemed met, unless specifically provided otherwise under the applicable award agreement.

Forfeiture Events

Each award under the Plan and any other compensation paid or payable to a participant (including, but not limited to, equity awards issued outside of the Plan) will be subject to any clawback policy of ours, and the administrator also may specify in an award agreement that the participant's rights, payments and benefits regarding an award will be subject to reduction, cancellation, forfeiture, recoupment, reimbursement or reacquisition upon the occurrence of certain specified events. An award will be subject to the company's clawback policy in effect when the award is granted and any other clawback policy of ours as established and/or amended to comply with applicable laws (such as under the listing standards of any national securities exchange or association on which our securities are listed or as required by the Dodd-Frank Wall Street Reform and Consumer Protection Act). The administrator may require a participant to forfeit, return, or reimburse all or a portion of the award and any amounts paid under the award to comply with such clawback policy or applicable laws.

No recovery of compensation under a clawback policy or otherwise will constitute an event that triggers or contributes to any right of a participant to resign for "good reason" or "constructive termination" (or similar term) under any agreement with us or any of our parent or subsidiary corporations, unless the Plan provisions described in the prior paragraph specifically are mentioned and waived in an award agreement or other document.

Termination or Amendment

The administrator may amend, alter, suspend, or terminate the Plan at any time, provided that no amendment may be made without stockholder approval to the extent approval is necessary to comply with any applicable laws. No amendment, alteration, suspension, or termination may materially impair the rights of any participant with respect to his or her outstanding awards unless mutually agreed otherwise between the participant and the administrator. The Plan will continue until terminated by the administrator, but no incentive stock option may be granted after the tenth anniversary of the Plan's adoption by our board of directors.

Notwithstanding the prior paragraph, the Administrator may amend the terms of any one or more awards without an affected participant's consent even if it does materially impair the participant's rights, subject to the limitations of applicable laws, if any, if such amendment is done (i) in a manner expressly permitted under the Plan; (ii) to maintain the qualified status of the award as an incentive stock option under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"); (iii) to change the terms of an incentive stock option, if such change results in impairment of the award only because it impairs the qualified status of the award as an incentive stock option under Section 422 of the Code; (iv) to clarify the manner of exemption from, or to bring the award into compliance with, Section 409A of the Code; or (v) to comply with other applicable laws.

Summary of U.S. Federal Income Tax Consequences

The following summary is intended only as a general guide to the U.S. federal income tax consequences of participation in the Plan. The summary is based on existing U.S. laws and regulations, and there can be no assurance that those laws and regulations will not change. The summary is not complete and does not discuss the tax consequences upon a participant's death, or the income tax laws of any municipality, state, or non-U.S. country in which a participant may reside. Tax consequences for any particular participant may vary based on individual circumstances.

Incentive Stock Options

A participant recognizes no taxable income for regular income tax purposes because of the grant or exercise of an option that qualifies as incentive stock option under Section 422 of the Code. If a participant exercises the option and then later sells or otherwise disposes of the shares acquired through the exercise the option after both the two-year anniversary of the date the option was granted and the one-year anniversary of the exercise, the participant will recognize a capital gain or loss equal to the difference between the sale price of the shares and the exercise price.

However, if the participant disposes of such shares either on or before the two-year anniversary of the date of grant or on or before the one-year anniversary of the date of exercise (a "disqualifying disposition"), any gain up to the excess of the fair market value of the shares on the date of exercise over the exercise price generally will be taxed as ordinary income, unless the shares are disposed of in a transaction in which the participant would not recognize a loss (such as a gift). However, if the proceeds from the disqualifying disposition are less than the fair market value of the shares on the date of exercise, the amount of ordinary income recognized by the participant will not exceed the gain, if any, realized on the sale. Any gain in excess of that amount of ordinary income recognized by the participant will be a capital gain. If a loss is recognized, there will be no ordinary income, and such loss will be a capital loss.

For purposes of the alternative minimum tax, the difference between the option exercise price and the fair market value of the shares on the exercise date is treated as an adjustment item in computing the participant's alternative minimum taxable income in the year of exercise. In addition, special alternative minimum tax rules may apply to certain subsequent disqualifying dispositions of the shares or provide certain basis adjustments or tax credits.

Nonstatutory Stock Options

A participant generally recognizes no taxable income as the result of the grant of a nonstatutory stock option. However, upon exercising the option with respect to any shares, the participant normally recognizes ordinary income equal to the amount that the fair market value of such shares on such date exceeds the exercise price for such shares. If the participant is an employee, such ordinary income generally is subject to withholding of income and

employment taxes. Upon the sale of the shares acquired by exercising a nonstatutory stock option, any gain or loss (based on the difference between the sale price and the fair market value on the exercise date) will be taxed as capital gain or loss.

Stock Appreciation Rights

A participant generally recognizes no taxable income as the result of the grant of a stock appreciation right. However, upon exercising the stock appreciation right with respect to any shares, the participant normally recognizes ordinary income equal to the amount that the fair market value of such shares on such date exceeds the exercise price for such shares, regardless of whether the stock appreciation right is settled in cash or shares. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Upon the sale of the shares acquired by exercising a stock appreciation right, any gain or loss (based on the difference between the sale price and the fair market value on the exercise date) will be taxed as capital gain or loss.

Restricted Stock Awards

A participant acquiring shares of restricted stock generally will recognize ordinary income as the shares subsequently vest, in an amount equal to the excess of the fair market value of the shares on the vesting date over the purchase price paid by the participant for such shares (if any). If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. The participant may elect, under Section 83(b) of the Code, to accelerate the ordinary income tax event to the date of acquisition by filing an election with the Internal Revenue Service no later than thirty days after the date the shares are acquired. Upon the sale of shares acquired under a restricted stock award, any gain or loss, based on the difference between the sale price and the fair market value on the date the ordinary income tax event occurs, will be taxed as capital gain or loss.

Restricted Stock Unit Awards

There are no immediate tax consequences of receiving an award of restricted stock units. A participant who is awarded restricted stock units generally will recognize ordinary income equal to the fair market value of shares issued to such participant at the end of the applicable vesting period or, if later, the settlement date elected by the administrator or a participant. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Any additional gain or loss recognized upon any later disposition of any shares received will be taxed as capital gain or loss.

Performance Shares and Performance Unit Awards

A participant generally will recognize no income upon the grant of a performance share or a performance unit award. Upon the settlement of such awards, participants normally will recognize ordinary income in the year of receipt in an amount equal to the cash received and the fair market value of any cash or unrestricted shares received. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Upon the sale of any shares received, any gain or loss, based on the difference between the sale price and the fair market value on the date the ordinary income tax event occurs, will be taxed as capital gain or loss.

Section 409A

Section 409A provides certain requirements for non-qualified deferred compensation arrangements with respect to an individual's deferral and distribution elections and permissible distribution events. Awards granted under the Plan with a deferral feature will be subject to the requirements of Section 409A. If an award is subject to and fails to satisfy the requirements of Section 409A, the recipient of that award may recognize ordinary income on the amounts deferred under the award, when vested, which may be before the compensation is actually or constructively received. Also, if an award subject to Section 409A violates Section 409A's provisions, Section 409A imposes an additional 20% federal income tax on compensation recognized as ordinary income and potentially penalties and interest on such deferred compensation.

Tax Effect for Us

We generally will be entitled to a tax deduction in connection with an award under the Plan equal to the ordinary income realized by a participant when the participant recognizes such income (for example, the exercise of a nonstatutory stock option or the disqualifying disposition of shares acquired through the exercise of an incentive stock option) except to the extent such deduction is limited by applicable provisions of the Code. Special rules limit the deductibility of compensation paid to our chief executive officer and other “covered employees” as determined under Section 162(m) and applicable guidance. Under Section 162(m), the annual compensation paid to any of these specified executives will be deductible only to the extent that it does not exceed \$1,000,000.

THE SUMMARY ABOVE IS ONLY A SUMMARY OF THE EFFECT OF U.S. FEDERAL INCOME TAXATION ON PARTICIPANTS AND US WITH RESPECT TO AWARDS UNDER THE PLAN. IT IS NOT INTENDED TO BE COMPLETE AND MAY NOT DISCUSS THE IMPACT OF EMPLOYMENT OR OTHER TAX REQUIREMENTS, THE TAX CONSEQUENCES OF A PARTICIPANT’S DEATH, OR THE PROVISIONS OF THE INCOME TAX LAWS OF ANY MUNICIPALITY, STATE, OR NON-U.S. COUNTRY IN WHICH THE PARTICIPANT MAY RESIDE.

New Plan Benefits

The number of awards that a participant may receive under the Plan is in the discretion of the Administrator and therefore cannot be determined in advance. For illustrative purposes only, the following table sets forth the aggregate number of shares subject to equity awards granted under the Plan during the last fiscal year to (i) our named executive officers, (ii) all current executive officers (including our Executive Chairman), as a group, (iii) all directors who are not executive officers, as a group, and (iv) all employees who are not executive officers, as a group (even if not currently outstanding).

Name of Individual or Group and Position	Number of Shares Subject to Options	Weighted-Average Per Share Exercise Price	Number of Shares Subject to Stock Awards	Dollar Value of Shares Subject to Stock Awards⁽¹⁾
Keith Murphy, Executive Chairman	197,500	\$ 6.70	—	\$ —
Thomas Jurgensen, General Counsel and Corporate Secretary	52,023	\$ 6.70	—	\$ —
Jeffrey Miner, Chief Scientific Officer	92,023	\$ 6.70	—	\$ —
All current executive officers, as a group (4 persons)	341,546	\$ 6.70	—	\$ —
All current directors who are not current executive officers, as a group (5 persons)	105,000	\$ 5.62	—	\$ —
All employees who are not current executive officers, as a group	77,000	\$ 5.79	—	\$ —

(1) Amounts reflect the fair value of the stock as of March 31, 2022, the last day of Fiscal 2022.

All future grants under the Plan are within the discretion of the Board of Directors and the benefits of such grants are, therefore, not determinable.

Equity Compensation Plan Information

The following table sets forth additional information with respect to the shares of common stock that may be issued upon the exercise of options and other rights under our existing equity compensation plans and arrangements in effect as of March 31, 2022. The information includes the number of shares covered by, and the weighted average exercise price of, outstanding options and the number of shares remaining available for future grant, excluding the shares to be issued upon exercise of outstanding options.

Plan category	(A) Number of securities to be issued upon exercise/vesting of outstanding options, warrants, units and rights	(B) Weighted-average exercise price of outstanding options, warrants, units and rights	(C) Number of securities available for future issuance under Equity Compensation Plans (excluding securities reflected in column (A))
Equity compensation plans approved by security holders ⁽¹⁾	1,169,171 ⁽²⁾	\$ 7.56	769,768 ⁽³⁾
Equity compensation plans not approved by security holders ⁽⁴⁾	50,000 ⁽⁵⁾	\$ 2.75	700,000 ⁽⁶⁾

(1) Includes the 2012 Plan and the “ESPP”.

(2) Includes stock options to purchase 1,153,671 shares of common stock with a per share weighted-average exercise price of \$7.56. Also includes 15,500 restricted stock units with no exercise price.

(3) Comprised of 710,333 shares of common stock available for future awards under the 2012 Plan and 59,435 shares of common stock available for purchase under the ESPP.

(4) Comprised of our 2021 Inducement Plan.

(5) Comprised of stock options to purchase 50,000 shares of common stock with a per share exercise price of \$2.75 granted pursuant to our 2021 Inducement Plan.

(6) Comprised of 700,000 shares of common stock reserved for issuance pursuant to our 2021 Inducement Plan.

Vote Required

If a quorum is present, the proposal to approve the Plan 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. 2022 EQUITY INCENTIVE PLAN.

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 II directors, whose term will expire at our Annual Meeting, are Douglas Jay Cohen and David Gobel.

The Board has nominated Douglas Jay Cohen and David Gobel for election at the Annual Meeting as Class II directors, for a three-year term expiring at the 2025 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. Cohen and Mr. Gobel will be elected to the Board under the plurality voting standard if he receives any vote “FOR” his election. Each of Mr. Cohen and Mr. Gobel 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	50	Director and Executive Chairman	Class III
Adam Stern	58	Director	Class III
Douglas Jay Cohen	51	Director	Class II
David Gobel	69	Director	Class II
Alison Tjosvold Milhous	43	Director	Class I
Vaidehi Joshi	36	Director and Director of Discovery Biology	Class I

(1) As of July 26, 2022.

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 26, 2022)

Board Size:				
Total Number of Directors	6			
	Female	Male	Non-Binary	Did Not Disclose Gender
Gender Identity:				
Directors	2	3	0	1
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	3	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	1

Nominees as Class II Directors Continuing in Office Until the 2022 Annual Meeting of Stockholders

Douglas Jay Cohen, Director, has served on our Board since September 2020. 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 biobioholographic 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 has served as a board member of Leucadia Therapeutics since October 2015, 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.

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 Viscient Biosciences, Inc. (“Viscient”), 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 has served as a member of the board of directors of Kintara Therapeutics, Inc. since August 2020, and serves 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 management team within 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) and privately held Aerami Therapeutics Holdings Inc. and Western Acquisition Ventures Corp. 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 Executive Director of SEC and Internal Controls 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.

No Family Relationships

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

CORPORATE GOVERNANCE

Overview

We are committed to maintaining high standards of business conduct and corporate governance, which we believe are fundamental to the overall success of our business, serving our stockholders well and maintaining our integrity in the marketplace. Our Corporate Governance Guidelines and Code of Business Conduct, together with our Certificate of Incorporation, Bylaws and the charters of our Board committees (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. We have no lead independent director.

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 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 2012 Plan to our employees (other than executives and directors), consultants or advisors of our Company. During fiscal year 2022, the Equity Award Committee exercised its authority to grant equity awards by written consent two 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, 2022, 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 two times and acted by written consent twelve times during the fiscal year ended March 31, 2022; the Audit Committee met four times and acted by written consent one time during the fiscal year ended March 31, 2022; the Compensation Committee met one time and acted by written consent two times during the fiscal year ended March 31, 2022; and the Nominating and Corporate Governance Committee met one time and acted by written consent two times during the fiscal year ended March 31, 2022. The Science and Technology Committee was formed in June 2022, after the fiscal year ended March 31, 2022 and therefore did not meet or act by written consent during the fiscal year ended March 31, 2022.

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 2021 Annual Meeting of Stockholders, five 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 non-employee 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. Non-employee directors are required to beneficially hold a number of shares of the Company's common stock with a value equal to four times 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. All of our current executive officers or directors commenced their most recent services with us within the last two years and therefore none of our current officers or directors is 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. 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. There has been no change to the procedures set forth in our Bylaws by which stockholders may recommend nominees to our Board. For information concerning stockholder proposals, see “Stockholder Proposals for the 2022 Annual Meeting” below in this Proxy Statement.

Communications with the Board of Directors

The Board desires that the views of stockholders will be heard by the Board, its committees or individual directors, as applicable, and that appropriate responses will be provided to stockholders on a timely basis. Stockholders wishing to formally communicate with the Board, the independent directors as a group or any individual director may send communications directly to the Company at 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 Executive Chairman is retained through Multi Dimensional Bio Insight LLC, a biotechnology consulting firm, and is not employed by us and therefore is deemed to be a non-employee director for purposes of our non-employee director compensation policy.

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 non-employee director compensation program and the compensation paid to our non-employee directors.

In connection with establishing our non-employee director compensation for Fiscal 2022, 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 non-employee director compensation and incentive programs relative to the same peer group used in benchmarking the compensation for our executive officers.

Fiscal 2022 Director Compensation Framework

For Fiscal 2022, our non-employee director compensation program consisted of: (i) annual cash retainers for Board service and for service as the chair or member of one of the standing Board committees and (ii) equity awards granted on an annual basis to continuing non-employee directors immediately following the Annual Meeting of Stockholders or upon their initial appointment to the Board for new directors. Our directors are not entitled to any Board meeting fees or Board committee meeting fees.

Annual Cash Retainers. For Fiscal 2022, each of our directors was eligible to receive an annual cash retainer of \$66,300 for Board membership.

In addition, each of our non-employee directors was 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:

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

No additional meeting fees were paid to our non-employee directors for Fiscal 2022.

Annual Equity Awards. In addition to the annual cash retainers, for Fiscal 2022, each non-employee director continuing in office after the adjournment of the 2021 Annual Meeting of Stockholders received a stock option award (the "Annual Award") immediately following the adjournment of the annual meeting. The number of shares subject to the Annual Award was calculated by taking the number of shares of common stock equal to 0.04% of the outstanding shares of common stock of the Company as of the grant date of the Annual Award, with the number of shares subject to the option rounded up to the nearest 500 shares.

The Annual Awards have an exercise price equal to the closing market price of the Company's common stock on the date of the Annual Awards. Each Annual Award will vest in full on the earlier of (i) one year from the date of the

Annual Award or (ii) one day prior to the next Annual Meeting of Stockholders held by the Company, subject to acceleration in the event of the change of control.

Initial Long-Term Equity Awards. During Fiscal 2022, our non-employee director compensation program provided that upon joining the Board (whether by appointment or election by stockholders), a non-employee director will receive an initial stock option award (the “Initial Award”) equal to 0.04% of the outstanding shares of common stock of the Company as of the date of the director’s appointment or election to the Board. The new director would also receive an Annual Award calculated on the same basis as the Annual Award for an existing director, except that the initial Annual Award shall be pro-rated based on the date of the director’s appointment or election and the number of months remaining in the twelve-month period between the last regularly scheduled Annual Meeting held by the Company and the next regularly scheduled Annual Meeting to be held by the Company. The Initial Award and initial Annual Award would have an exercise price equal to the closing market price of the Company’s common stock on the date the awards are granted. Each such Initial Award will vest quarterly over a period of twelve quarters from the vesting commencement date, subject to acceleration in the event of the change of control. Each initial Annual Award shall vest in full on the earlier of (i) one year from the date of the Annual Award or (ii) one day prior to the next Annual Meeting of Stockholders held by the Company, subject to acceleration in the event of the 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 2022:

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards (\$)(1)	All Other Compensation (\$)(2)	Total (\$)
Douglas Jay Cohen	\$ 122,400	\$ —	\$ 88,825	\$ —	\$ 211,225
David Gobel	107,100	—	88,825	—	195,925
Alison Tjosvold Milhous	107,100	—	88,825	—	195,925
Adam Stern	96,900	—	88,825	—	185,725
Keith Murphy (3)	66,300	—	88,825	—	155,125
Vaidehi Joshi (4)	4,420	—	93,037	—	97,457

(1) These amounts represent the grant date fair value of stock option 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, 2022, as filed with the SEC on June 10, 2022.

(2) Excludes amounts reimbursed for reasonable travel to Board and Board committee meetings as well as Board Education.

(3) Comprised solely of the fees received by Mr. Murphy pursuant to his service as a member of the Board of Directors. Mr. Murphy’s additional compensation for Fiscal 2022 is included in the section entitled “Summary Compensation Table” on page 47 of this Proxy Statement.

(4) Ms. Joshi joined the Board on March 8, 2022.

Fiscal 2023 Director Compensation Framework

On July 25, 2022, our Board adopted a new director compensation framework, effective July 25, 2022 (the “New Director Compensation Framework”). The New Director Compensation Framework provides to both non-employee and employee directors (i) annual cash retainers for Board service and for service as the chair or member of one of the standing Board committees and (ii) equity awards granted on an annual basis to continuing directors immediately following the Annual Meeting of Stockholders or upon their initial appointment to the Board for new directors. 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 is eligible to receive an annual cash retainer of \$70,278 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:

Position	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee	Science and Technology Committee
Committee Chair	\$ 27,030	\$ 27,030	\$ 27,030	\$ 27,030
Committee Member (excluding Chair)	\$ 16,218	\$ 16,218	\$ 16,218	\$ 16,218

Annual Equity Awards. In addition to the annual cash retainers, each director continuing in office after the adjournment of the 2022 Annual Meeting of Stockholders will receive a stock option award (the “Annual Award”) immediately following the adjournment of the annual meeting. The number of shares subject to the Annual Award will be calculated by taking the number of shares of common stock equal to 0.04% of the outstanding shares of common stock of the Company as of the grant date of the Annual Award, with the number of shares subject to the option rounded up to the nearest 500 shares.

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

Initial Long-Term Equity Awards. Our director compensation program also provides that upon joining the Board (whether by appointment or election by stockholders), a director will receive an initial stock option award (the “Initial Award”) equal to 0.04% of the outstanding shares of common stock of the Company as of the date of the director’s appointment or election to the Board. The new director would also receive an Annual Award calculated on the same basis as the Annual Award for an existing director, except that the initial Annual Award shall be pro-rated based on the date of the director’s appointment or election and the number of months remaining in the twelve-month period between the last regularly scheduled Annual Meeting held by the Company and the next regularly scheduled Annual Meeting to be held by the Company. The Initial Award and initial Annual Award will have an exercise price equal to the closing market price of the Company’s common stock on the date the awards are granted. Each such Initial Award will vest quarterly over a period of twelve quarters from the vesting commencement date, subject to acceleration in the event of the change of control. Each initial Annual Award shall vest in full on the earlier of (i) one year from the date of the Annual Award or (ii) one day prior to the next Annual Meeting of Stockholders held by the Company, subject to acceleration in the event of the change of control.

Reimbursement. Our directors are entitled to reimbursement for their reasonable travel and lodging expenses for attending Board and Board committee meetings.

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 26, 2022:

Name	Age	Position
Keith Murphy	50	Executive Chairman
Thomas Hess	58	President and Chief Financial Officer
Jeffrey Miner	60	Chief Scientific Officer
Thomas Jurgensen	65	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. Mr. Hess is a seasoned executive with significant experience in managing and leading teams as well as overseeing the financial and operational responsibilities of private and publicly traded life sciences companies. 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 and is the Chairman of the Nittany Lion Club Annual Fund.

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 15, 2022 (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 15, 2022. 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 15, 2022. 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 15, 2022. 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 8,711,953 shares of common stock outstanding as of July 15, 2022, 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 15, 2022, or issuable pursuant to restricted stock units that are subject to vesting conditions expected to occur within 60 days of July 15, 2022, 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)	Percent of Common Shares
5% Stockholders	Number of Common Shares	
Sumitomo Mitsui Trust Holdings, Inc.	478,570 (2)	5.5%
Directors and Named Executive Officers		
Keith Murphy	169,548 (3)	1.9%
Thomas Jurgensen	31,630 (4)	*
Jeffrey Miner	61,005 (4)	*
Douglas Jay Cohen	32,417 (5)	*
David Gobel	20,417 (4)	*
Alison Tjosvold Milhous	20,417 (4)	*
Adam Stern	20,417 (4)	*
Vaidehi Joshi	5,834 (4)	*
All current executive officers and directors as a group (9 persons)	361,685 (6)	4.0%

* Less than one percent.

- (1) Beneficial ownership of shares and percentage ownership are determined in accordance with the rules of the SEC. Unless otherwise indicated and subject to community property laws where applicable, the individuals named in the table above have sole voting and investment power with respect to all shares of our common stock shown as beneficially owned by them.
- (2) Sumitomo Mitsui Trust Holdings, Inc. ("Sumitomo") filed a Schedule 13G/A with the SEC on February 4, 2022, reporting that it had shared voting power with respect to 478,570 shares, shared dispositive power with respect to 478,570 shares and beneficial ownership of an aggregate of 478,570 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 478,570 shares, shared dispositive power with respect to 478,570 shares and beneficial ownership of an aggregate of 478,570 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 14, 2022, reporting that it had shared voting power with respect to 371,410 shares, shared dispositive power with respect to 478,570 shares and beneficial ownership of an aggregate of 478,570 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 73,820 shares of common stock held by Mr. Murphy and 95,728 shares subject to options that are immediately exercisable or exercisable within 60 days of July 15, 2022.
- (4) Represents shares subject to options that are immediately exercisable or exercisable within 60 days of July 15, 2022.
- (5) Represents 10,000 shares of common stock held by Mr. Cohen, 2,000 shares held by Mr. Cohen's children and 20,417 shares subject to options that are immediately exercisable or exercisable within 60 days of July 15, 2022.
- (6) 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 2021, 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 3 for Thomas Hess that was due on October 18, 2021 but was not filed until November 1, 2021 due to a need to reset Mr. Hess' SEC filing codes, and a late Form 4 for David Gobel relating to the sale of an immaterial number of shares on November 19, 2021 that was due on November 23, 2021, which was reported on a Form 5 filing made on July 8, 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 2022 (i.e., the period from April 1, 2021 to March 31, 2022).

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 2022, 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" Vote

At our 2021 Annual Meeting of Stockholders, we held a stockholder advisory vote, commonly referred to as a "say-on-pay" vote, to approve the compensation of our named executive officers for Fiscal 2021 (i.e., the period from April 1, 2020 to March 31, 2021). We received approval from our stockholders, with approximately 68% of stockholder votes cast in favor of the proposal. For purposes of this vote regarding Fiscal 2021 named executive officer compensation, our group of named executive officers included former officers of the Company, who received severance payouts as a result of a change in control that occurred during Fiscal 2021 and none of whom were employed by the Company at the end of Fiscal 2021. Following our 2021 Annual Meeting of Stockholders, our Executive Chairman, General Counsel, and Chief Financial Officer contacted stockholders representing over 14% of our outstanding shares to engage with them and hear their views on our executive compensation program, including three of our larger institutional shareholders accounting for over 60% of our total institutional shareholding. During these calls, we discussed and addressed with our investors' concerns regarding our business strategy following the change in control that occurred in Fiscal 2021, the voting provision outcomes, and requests to provide additional background and context for our executive compensation program. Throughout this process, all stockholder feedback on compensation matters was presented and discussed with the Compensation Committee and shared with our Board, which has resulted in us providing additional disclosure in this year's proxy.

Additional Stockholder Engagement Following 2020 and 2021 "Say-on-Pay" Votes

Following disappointing "Say-on-Pay" votes in 2020 (approximately 65% support) and 2021 (approximately 68% support), we plan to initiate for fiscal 2023 significant additional stockholder engagement efforts to better understand the reasons for how our investors voted, to obtain their views on key corporate governance and disclosure matters and to determine how best to respond to that feedback going forward.

We plan to reach out to institutional stockholders representing at least 16% of our total shares outstanding to invite them to participate in calls to discuss our executive compensation programs. We plan to reach out to institutional stockholders representing at least 16% of our total shares outstanding, corresponding to all of our institutional shareholders, to invite them to participate in calls to discuss our executive compensation programs and any other concerns they may have. David Gobel, the independent chair of our Compensation Committee, will directly engage with investors who respond to our outreach program. 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' concerns, including the 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. Our

Compensation Committee is committed to implementing compensation programs that are aligned with the interests of our stockholders.

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 2022, 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 2022, 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 2022.

The peer group for Fiscal 2022 included:

Advaxis	Cidara Therapeutics, Inc.	OncoSec Medical Incorporated
Apra 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.
Celsion Corporation	Onconova Therapeutics, Inc.	

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 2022, the Company's financial status and operating runway, each executive officer's responsibilities and contribution to the Company's achievement of the Fiscal 2022 corporate goals, and each executive officer's individual performance during Fiscal 2022. 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 2022 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 35-50% of the Total Direct Compensation our executive officers can earn is performance and incentive based, thereby aligning the interests of our executive officers with our stockholders' interests.
- ***Stock Ownership Guidelines*** – The Compensation Committee established stock ownership guidelines to further align our executive officers' interests with those of our stockholders. The guidelines require each of our named executive officers to acquire and hold a meaningful ownership interest in our Company.
- ***Compensation Risk Assessment*** – The Compensation Committee oversees and evaluates an annual risk assessment of the Company's compensation program. The Compensation Committee believes that the performance goals established for incentives do not encourage excessive risk-taking or have the potential to encourage behavior that may have a material adverse effect on the Company.

- **Prohibitions on Hedging, Pledging and Margin Activities** – Our insider trading policy prohibits hedging transactions by Company employees. Under the policy, all short-term, speculative or hedging transactions in Organovo securities are prohibited by all employees. In addition, the policy specifically prohibits the use of Organovo securities for pledging and margin activities.

The Compensation Committee believes that the program and policies described above demonstrate the Company’s commitment to, and consistent execution of, an effective performance-oriented executive compensation program. Please see our “2022 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.

Base Salary. The Compensation Committee has provided, and will continue to provide, our executive officers with a base salary to compensate them for services provided during the fiscal year. In addition to benchmark data from our peer group, our Compensation Committee considers the Company’s overall performance during the 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.

Due to the Company’s change in control in Fiscal 2021, the Compensation Committee and Board determined that it was in the best interests of the Company and its stockholders to freeze at Fiscal 2021 levels the salaries of Mr. Jurgensen and Dr. Miner for Fiscal 2022. 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% effective January 1 of each year. From September 15, 2020 to December 31, 2020, the hourly rate for Mr. Murphy’s services was \$375, which was increased to \$390 effective January 1, 2021 and remained the same throughout Fiscal 2022.

The base salaries of our named executive officers for Fiscal 2022 as compared to Fiscal 2021 are set forth in the following table (which does not reflect actual amounts received in Fiscal 2022 or Fiscal 2021):

Name and Title	Fiscal 2022 Base Salary	Fiscal 2021 Base Salary	Increase
Keith Murphy, <i>Executive Chairman</i> (1)	\$ 430,073	\$ 354,080	21.5%
Thomas Jurgensen, <i>General Counsel and Corporate Secretary</i>	360,000	360,000	0.0%
Jeffrey Miner, <i>Chief Scientific Officer</i>	225,000	225,000	0.0%

(1) Mr. Murphy was appointed our Executive Chairman on September 15, 2020. The Company retained 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. The amounts reported under “Fiscal 2022 Base Salary” and “Fiscal 2021 Base 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 2022 or Fiscal 2021.

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 2022, the Compensation

Committee determined that the annual target bonus opportunity expressed as a percentage of base salary for Mr. Jurgensen and Dr. Miner should be 40% and 35% of each of their respective base salaries. Each executive officer is eligible to receive an increase in his target bonus amount based on the achievement of individual and corporate goals. If the base performance level is met for a corporate goal, the Compensation Committee has the discretion to assign zero percentage to that performance goal or a bonus percentage on an interpolated basis between zero and 100%, resulting in an actual bonus significantly less than the Executive's target bonus. For performance above a performance goal, the bonus percentage for that performance goal may exceed the target bonus. 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.

For fiscal year 2023 the Company is adopting 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>. Accordingly, the Compensation Committee approved bonus payments for Fiscal 2022 as follows:

Name and Title	Percentage of Goal	Fiscal 2022 Bonus Award
Keith Murphy, <i>Executive Chairman</i> (1)	0%	—
Thomas Jurgensen, <i>General Counsel and Corporate Secretary</i>	50%	\$ 180,000
Jeffrey Miner, <i>Chief Scientific Officer</i>	35%	78,750

(1) Mr. Murphy is retained through MDBI, a biotechnology consulting firm, pursuant to the terms of a consulting agreement, pursuant to which the Company has agreed to pay MDBI \$375-390 per hour of services provided. As such, Mr. Murphy is not eligible to receive a bonus for services provided during the fiscal year.

Equity-Based Incentive Awards. In addition to base salaries and annual performance-based cash incentives, the Compensation Committee generally provides long-term, equity-based incentive awards to our executive officers. For Fiscal 2022, these grants consisted of option awards and performance-based option awards. 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 2022:

Name	Stock Option Awards (#)	Stock Awards (#)	Option Awards (\$)(1)	Stock Awards (\$)	Total (\$)
Keith Murphy (2)	180,000	—	\$ 829,672	\$ —	\$ 829,672
Thomas Jurgensen (3)	52,023	—	264,054	—	264,054
Jeffrey Miner (4)	92,023	—	443,248	—	443,248

(1) These amounts represent the grant date fair value of time-based and performance-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, 2022, as filed with the SEC on June 10, 2022.

(2) Of the 180,000 stock options granted to Mr. Murphy, 120,000 have vesting criteria based on market conditions, specifically related to the Company's stock price, 30,000 stock options granted have vesting criteria based on the Company recognizing \$1.5 million of revenue per year based on three quarters of results, and the remaining 30,000 stock options granted have vesting criteria relating to the Company closing a seven-figure cash up front deal with a major pharmaceutical company. See "Outstanding Equity Awards at Fiscal Year End" table below for additional details.

(3) The 52,023 stock options granted to Mr. Jurgensen are time-based annual awards.

(4) Of the 92,023 stock options granted to Dr. Miner, 25,000 have vesting criteria based on market conditions, specifically related to the Company's stock price, 7,500 stock options granted have vesting criteria based on the Company recognizing \$1.5 million of revenue per year based on three quarters of results, 7,500 stock options granted have vesting criteria relating to the Company closing a seven-figure cash up front deal with a major pharmaceutical company, and the remaining 52,023 stock options are time-based annual awards. See "Outstanding Equity Awards at Fiscal Year End" table below for additional details.

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 (“CIC”): 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, 2022 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 of Control	\$ 1,216,800	\$ —	\$ —	\$ —	\$ 1,216,800
Thomas Jurgensen					
Termination in connection with a Change of Control	\$ 360,000	\$ —	\$ —	\$ —	\$ 360,000
Jeffrey Miner					
Termination in connection with a Change of Control	\$ 225,000	\$ —	\$ —	\$ —	\$ 225,000

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 2022 and Fiscal 2021.

Name and Principal Position	Year or Period	Salary (\$)	Bonus (\$)	Stock Awards (\$)(1)	Option Awards (\$)(2)	Non-Equity Incentive Plan Compensation (\$)(3)	All Other Compensation (\$)(4)	Total (\$)
Keith Murphy(5)	2022	430,073	—	—	829,672	—	400—	1,260,144
Executive Chairman	2021	354,080	—	205,400	1,801,165	—	—	2,360,645
Thomas Jurgensen	2022	360,000	—	—	264,054	180,000	8,029	812,083
General Counsel and Corporate Secretary(6)	2021	264,025	—	—	430,821	34,338	837	695,683
Jeffrey Miner	2022	225,000	—	—	443,247	78,750	—	747,027
Chief Scientific Officer(7)	2021	120,288	—	—	833,028	42,101	—	953,317

(1) These amounts represent the grant date fair value of time-based and performance-based restricted stock unit 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, 2022, as filed with the SEC on June 10, 2022.

(2) 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, 2022, as filed with the SEC on June 10, 2022.

(3) 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.

(4) These amounts include 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."

(5) 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 2022 or Fiscal 2021. 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 35 of this Proxy Statement.

- (6) Mr. Jurgensen was appointed our General Counsel and Corporate Secretary on September 15, 2020. Mr. Jurgensen's "All Other Compensation" for Fiscal 2022 includes \$8,029 for the Company's matching contribution to the 401(k) plan.
- (7) Dr. Miner was appointed our Chief Scientific Officer on September 15, 2020.

Outstanding Equity Awards at Fiscal Year End

The following table shows certain information regarding outstanding equity awards as of March 31, 2022 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	24,374(1)	40,626	\$ 7.64	9/15/2030	15,000(5)	\$ 56,400			
	11,250(2)	33,750	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					
	Thomas Jurgensen	7,500(1)	12,500	7.64			9/15/2030		
		10,938(6)	24,062	10.27			3/8/2031		
3,252(11)		48,771	6.70	10/7/2031					
Jeffrey Miner	37,500(1)	62,500	7.64	9/15/2030					
	—(3)	12,500	10.27	3/8/2031					
	—(4)	12,500	10.27	3/8/2031					
	3,252(11)	48,771	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					

- (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 becomes exercisable, if at all, when the Company revenue hits \$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.

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, 2022, filed with the SEC on June 10, 2022. The information contained in this report shall not be deemed to be “soliciting material” or to be “filed” with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933, as amended, or the 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, 2022 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, 2021, 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, 2022 and March 31, 2021, the Company incurred approximately \$47,000 and \$38,000 in consulting expenses from Viscient, respectively. Additionally, for the years ended March 31, 2022 and March 31, 2021, the Company provided approximately \$48,000 and \$0 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 made available to stockholders, in accordance with SEC rules, by providing access to these documents on the internet instead of mailing printed copies. Most stockholders will not receive printed copies of the proxy materials unless requested. Instead, the notice provides instructions on how to access and review the proxy materials on the internet. The notice also provides instructions on how to cast your vote via the internet or by telephone. If you would like to receive a printed or email copy of our proxy materials, please follow the instructions for requesting the materials in the notice. The Company may consider the engagement of a proxy solicitation firm. Our directors, officers and employees may also solicit proxies by mail, telephone and personal contact, but they will not receive any additional compensation for these activities.

STOCKHOLDER PROPOSALS FOR 2023 ANNUAL MEETING

Stockholders interested in submitting a proposal for consideration at our 2023 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 2023 Annual Meeting is March 28, 2023, 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., July 26, 2022). Accordingly, in order for a stockholder proposal to be considered for inclusion in our proxy materials for the 2023 Annual Meeting, any such stockholder proposal must be received by our Corporate Secretary on or before March 28, 2023, and comply with the procedures and requirements set forth in Rule 14a-8 under the Securities Exchange Act of 1934, as well as the applicable requirements of our Bylaws. Any stockholder proposal received after March 28, 2023 will be considered untimely and will not be included in our proxy materials. In addition, stockholders interested in submitting a proposal outside of Rule 14a-8 must properly submit such a proposal in accordance with our Bylaws.

Our Bylaws require advance notice of business to be brought before a stockholders' meeting, including nominations of persons for election as directors. To be timely, notice to our Corporate Secretary must be received at our principal executive offices not less than 45 days but not more than 75 days prior to the one-year anniversary of the date on which the Company first mailed its proxy materials or a notice of availability of proxy materials (whichever is earlier) for the Annual Meeting (i.e., July 26, 2022) 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 2023 Annual Meeting, such a proposal must be received by the Company on or after May 12, 2023 but no later than June 11, 2023. If the date of the 2023 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 the 120th day prior to such Annual Meeting and not later than the close of business on the later of (i) the 90th day prior to such Annual Meeting or (ii) the 10th day following the day on which the public announcement of the date of such Annual Meeting is first made.

HOUSEHOLDING OF ANNUAL MEETING MATERIALS

We have adopted "householding," a procedure approved by the SEC under which stockholders who share an address will receive a single copy of the Notice of Internet Availability and, if applicable, 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 Notice of Internet Availability and, if applicable, 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 Notice of Internet Availability and, if applicable, 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 Notice of Internet Availability and, if applicable, 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

¹ March 28, 2023 is the deadline assuming a July 26, 2022 proxy statement mailing date (120 days before the anniversary of the date this proxy statement is released to stockholders).

The Company filed an Annual Report on Form 10-K for the year ended March 31, 2022 with the SEC on June 10, 2022 (the “Annual Report”). A copy of the Company’s Annual Report 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

ORGANOVO HOLDINGS, INC.
 11555 TORRENTO 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 6, 2022. 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.virtualshareholdmeeting.com/ONVO2022

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 6, 2022. 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:

D88939-P76238

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

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

ORGANOVO HOLDINGS, INC.

The Board of Directors recommends you vote FOR the following:

- To elect each of Douglas Jay Cohen and David Gobel as a Class II director to hold office until the 2025 Annual Meeting of Stockholders and until his respective successor is elected and qualified.

Nominees:	For	Withhold
1a. Douglas Jay Cohen	<input type="checkbox"/>	<input type="checkbox"/>
1b. David Gobel	<input type="checkbox"/>	<input type="checkbox"/>

The Board of Directors recommends you vote FOR proposals 2, 3 and 4.

	For	Against	Abstain
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, 2023.	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>
4. To approve the Organovo Holdings, Inc. 2022 Equity Incentive Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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.

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.

Signature [PLEASE SIGN WITHIN BOX]	Date	Signature (Joint Owners)	Date

You are cordially invited to attend our 2022 Annual Meeting of Stockholders, to be held virtually via live webcast at www.virtualshareholdermeeting.com/ONVO2022 at 9:00 a.m. Pacific Time on September 7, 2022.

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.

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**ORGANOVO HOLDINGS, INC.
Annual Meeting of Stockholders
September 7, 2022, 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 7, 2022, via live webcast at www.virtualshareholdermeeting.com/ONVO2022 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 AND 4.

Continued and to be signed on reverse side

Your **Vote** Counts!

ORGANOVO HOLDINGS, INC.

2022 Annual Meeting
Vote by September 6, 2022
11:59 PM ET

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



D88951-P76238

You invested in ORGANOVO HOLDINGS, INC. and it's time to vote!

You have the right to vote on proposals being presented at the Annual Meeting. **This is an important notice regarding the availability of proxy material for the stockholder meeting to be held on September 7, 2022.**

Get informed before you vote

View the Notice and Proxy Statement and Annual Report online OR you can receive a free paper or email copy of the material(s) by requesting prior to August 24, 2022. If you would like to request a copy of the material(s) for this and/or future stockholder meetings, you may (1) visit www.ProxyVote.com, (2) call 1-800-579-1639 or (3) send an email to sendmaterial@proxyvote.com. If sending an email, please include your control number (indicated below) in the subject line. Unless requested, you will not otherwise receive a paper or email copy.



For complete information and to vote, visit www.ProxyVote.com

Control #

Smartphone users

Point your camera here and vote without entering a control number



Vote Virtually at the Meeting*

September 7, 2022
9:00 a.m. Pacific Time

Virtually at:
www.virtualshareholdermeeting.com/ONVO2022

*Please check the meeting materials for any special requirements for meeting attendance.

THIS IS NOT A VOTABLE BALLOT

This is an overview of the proposals being presented at the upcoming stockholder meeting. Please follow the instructions on the reverse side to vote these important matters.

Voting Items	Board Recommends
1. To elect each of Douglas Jay Cohen and David Gobel as a Class II director to hold office until the 2025 Annual Meeting of Stockholders and until his respective successor is elected and qualified.	
Nominees:	
1a. Douglas Jay Cohen	✔ For
1b. David Gobel	✔ For
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, 2023.	✔ For
3. To approve, on an advisory basis, the compensation of our named executive officers.	✔ For
4. To approve the Organovo Holdings, Inc. 2022 Equity Incentive Plan.	✔ For
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.	

Prefer to receive an email instead? While voting on www.ProxyVote.com, be sure to click "Sign up for E-delivery".

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Appendix A

ORGANOVO HOLDINGS, INC. 2022 EQUITY INCENTIVE PLAN

1. Purpose of the Plan. The purpose of this Plan is to:

- to attract and retain the best available personnel for positions of substantial responsibility,
- to provide additional incentive to Employees, Directors and Consultants, and
- to promote the success of the Company's business.

The Plan permits the grant of Incentive Stock Options, Nonstatutory Stock Options, Restricted Stock, Restricted Stock Units, Stock Appreciation Rights, Performance Units and Performance Shares.

2. Definitions. The following definitions are used in this Plan:

- (a) "Administrator" means the Board or any of its Committees as will be administering the Plan, in accordance with Section 4 of the Plan.
- (b) "Applicable Laws" means the legal and regulatory requirements relating to the administration of equity-based awards and issuance of shares of Common Stock, including under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any non-U.S. country or jurisdiction where Awards are, or will be, granted under the Plan. Reference to a specific section of an Applicable Law or regulation related to that section shall include such section or regulation, any valid regulation or other official guidance issued under that section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding that section or regulation.
- (c) "Award" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares.
- (d) "Award Agreement" means the written or electronic agreement between the Company and Participant setting forth the terms and provisions applicable to an Award granted under the Plan. The Award Agreement is subject to the terms and conditions of the Plan.
- (e) "Board" means the Board of Directors of the Company.
- (f) "Change in Control" means the occurrence of any of the following events:
 - (i) Change in Ownership of the Company. A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than 50% of the total voting power of the stock of the Company; provided, however, that for purposes of this subsection, if any one Person is already considered to own more than 50% of the total voting power of the stock of the Company, the acquisition of additional stock by such Person will not be considered a Change in Control; or
 - (ii) Change in Effective Control of the Company. A change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any 12-month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election.

For purposes of this subsection (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

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

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

Further and for the avoidance of doubt, a transaction will not constitute a Change in Control if: (x) its primary purpose is to change the jurisdiction of the Company's incorporation, or (y) its primary purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

- (g) "Code" means the U.S. Internal Revenue Code of 1986.
- (h) "Committee" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board, or a duly authorized committee of the Board, in accordance with Section 4 hereof.
- (i) "Common Stock" means the common stock of the Company.
- (j) "Company" means Organovo Holdings, Inc., a Delaware corporation, or any successor thereto.
- (k) "Consultant" means any person, including an advisor, engaged by the Company or a Parent or Subsidiary of the Company to render bona fide services to such entity, provided the services (i) are not in connection with the offer or sale of securities in a capital-raising transaction, and (ii) do not directly promote or maintain a market for the Company's securities, in each case, within the meaning used with respect to Form S-8 promulgated under the Securities Act, and provided, further, that a Consultant will include only those persons to whom the issuance of Shares may be registered under Form S-8 promulgated under the Securities Act.
- (l) "Director" means a member of the Board.
- (m) "Disability" means total and permanent disability as defined in Section 22(e)(3) of the Code, provided that in the case of Awards other than Incentive Stock Options, the Administrator in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

- (n) “Employee” means any person, including Officers and Inside Directors, providing services as an employee to the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director’s fee by the Company will be sufficient to constitute “employment” by the Company.
- (o) “Exchange Act” means the U.S. Securities Exchange Act of 1934.
- (p) “Exchange Program” means a program under which (i) outstanding Awards are surrendered or cancelled in exchange for awards of the same type (which may have higher or lower exercise prices and different terms), awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator and/or (iii) the exercise price of an outstanding Award is reduced. As described in Section 4(i), the Administrator may not institute an Exchange Program.
- (q) “Fair Market Value” means, as of any date, the value of Common Stock determined as follows:
 - (i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market of The Nasdaq Stock Market or the New York Stock Exchange, its Fair Market Value will be the closing sales price for such stock (or, the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported by such source as the Administrator deems reliable;
 - (ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for the Common Stock on the day of determination (or the closing bid, if no sales were reported), as reported by such source as the Administrator deems reliable; or
 - (iii) In the absence of an established market for the Common Stock, the Fair Market Value will be determined in good faith by the Administrator.

If the Fair Market Value is to be determined under subsection (i) or (ii) above and the determination date for the Fair Market Value occurs on a day other than a Trading Day, the Fair Market Value will be the price as determined under subsection (i) or (ii) above, as applicable, on the immediately preceding Trading Day, unless otherwise determined by the Administrator. In addition, for purposes of determining the fair market value of shares for any reason other than the determination of the exercise price of Options or Stock Appreciation Rights, fair market value will be determined by the Administrator in a manner compliant with Applicable Laws and applied consistently for such purpose. Note that the determination of fair market value for purposes of withholding Tax-Related Items may be made in the Administrator’s sole discretion subject to Applicable Laws and is not required to be consistent with the determination of Fair Market Value for other purposes.

- (r) “Fiscal Year” means the fiscal year of the Company.
- (s) “Full-Value Awards” means any Awards that result in the Company transferring the full value of any underlying Share granted pursuant to an Award, but shall not include Options and Stock Appreciation Rights.
- (t) “Incentive Stock Option” means an Option that is intended to qualify, and actually qualifies, as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.
- (u) “Inside Director” means a Director who is an Employee.
- (v) “Nonstatutory Stock Option” means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

- (w) “Officer” means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.
- (x) “Option” means a stock option granted pursuant to the Plan.
- (y) “Outside Director” means a Director who is not an Employee.
- (z) “Parent” means a “parent corporation” of the Company, whether now or hereafter existing, as defined in Section 424(e) of the Code.
- (aa) “Participant” means the holder of an outstanding Award.
- (bb) “Performance Share” means an Award denominated in Shares which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine pursuant to Section 10.
- (cc) “Performance Unit” means an Award denominated in Shares or cash, which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine and which may be settled for cash, Shares or other securities or a combination of the foregoing pursuant to Section 10.
- (dd) “Period of Restriction” means the period (if any) during which the transfer of Shares of Restricted Stock are subject to restrictions and therefore, the Shares are subject to a substantial risk of forfeiture. Such restrictions may be based on the passage of time, the achievement of target levels of performance, or the occurrence of other events as determined by the Administrator.
- (ee) “Plan” means this Organovo Holdings, Inc. 2022 Equity Incentive Plan.
- (ff) “Restricted Stock” means Shares issued pursuant to a Restricted Stock award under Section 7 of the Plan, or issued pursuant to the early exercise of an Option.
- (gg) “Restricted Stock Unit” means a bookkeeping entry representing an amount equal to the Fair Market Value of one Share, granted pursuant to Section 8. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.
- (hh) “Rule 16b-3” means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.
- (ii) “Section 16(b)” means Section 16(b) of the Exchange Act.
- (jj) “Section 409A” means Section 409A of the Code.
- (kk) “Securities Act” means the U.S. Securities Act of 1933.
- (ll) “Service Provider” means an Employee, Director or Consultant.
- (mm) “Share” means a share of the Common Stock, as adjusted in accordance with Section 14 of the Plan.
- (nn) “Stock Appreciation Right” means an Award, granted alone or in connection with an Option, that pursuant to Section 9 is designated as a Stock Appreciation Right.
- (oo) “Subsidiary” means a “subsidiary corporation” of the Company whether now or hereafter existing, as defined in Section 424(f) of the Code.

- (pp) “Substituted Award” means an Award granted in substitution for an equity award of an acquired entity in connection with a merger, reorganization, separation or other transaction to which Section 424(a) of the Code applies.
- (qq) “Tax-Related Items” means any U.S. and non-U.S. federal, state, or local taxes (including, without limitation, income tax, social insurance, payroll tax, fringe benefits tax, payment on account and any other tax-related items) related to a Participant’s participation in the Plan and legally applicable or deemed applicable to the Participant, or have been transferred to the Participant.
- (rr) “Trading Day” means a day that the primary stock exchange, national market system, or other trading platform, as applicable, upon which the Common Stock is listed is open for trading.

3. Stock Subject to the Plan.

- (a) Stock Subject to the Plan. Subject to the provisions of Section 14 of the Plan, the maximum aggregate number of Shares that may be issued under the Plan is (i) 1,363,000 Shares, plus (ii) any Shares subject to awards granted under the Company’s Amended and Restated 2012 Equity Incentive Plan, as amended, that, on or after the date stockholders initially approve the Plan, expire or otherwise terminate without having been exercised or issued in full or are forfeited to or repurchased by the Company due to failure to vest, with the maximum number of Shares to be added to the Plan pursuant to clause (ii) equal to 1,241,460 Shares. In addition, Shares may become available for issuance under the Plan pursuant to Section 3(c). The Shares may be authorized, but unissued, or reacquired Common Stock. If the Committee grants Substituted Awards in substitution for equity awards outstanding under a plan maintained by an entity acquired by or consolidated with the Company, the grant of those Substituted Awards will not decrease the number of Shares available for issuance under the Plan.
- (b) Share Conversion Ratio. Any Shares that are subject to Options, Stock Appreciation Rights or other Awards that are not Full-Value Awards shall be counted against the numerical limits of Section 3(a) as one Share for every Share subject thereto. Any Shares subject to Full-Value Awards on the date of grant shall be counted against the numerical limits of Section 3(a) as 1.15 Shares for every one Share subject thereto. To the extent that a Share that was subject to an Award that counted as 1.15 Shares against the Plan reserve pursuant to the preceding sentence is recycled back into the Plan under Section 3(c), the Plan shall be credited with 1.15 Shares.
- (c) Lapsed Awards. If an Award expires without having been exercised in full, or, with respect to Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares, is forfeited to or repurchased by the Company, then the unpurchased Shares (or for Awards other than Options or Stock Appreciation Rights, the forfeited or repurchased Shares) that were subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). Upon exercise of a Stock Appreciation Right settled in Shares, the gross number of Shares covered by the portion of the Stock Appreciation Right so exercised will cease to be available under the Plan. Shares that actually have been issued under the Plan under any Award will not be returned to the Plan and will not become available for future distribution under the Plan; provided, however, that if unvested Shares of Restricted Stock, Restricted Stock Units, Performance Shares or Performance Units are repurchased by the Company or are forfeited to the Company, such Shares will become available for future grant under the Plan. Shares used to pay the exercise price or purchase price of an Award or to satisfy the tax withholding obligations related to an Award will not become available for future grant or sale under the Plan. To the extent an Award under the Plan is paid out in cash rather than Shares, such cash payment will not reduce the number of Shares available for issuance under the Plan. Notwithstanding the foregoing and, subject to adjustment as provided in Section 14, the maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal the aggregate Share number stated in Section 3(a), plus, to the extent allowable under Section 422 of the Code and the Treasury Regulations promulgated thereunder, any Shares that become available for issuance under the Plan pursuant to this Section 3(c).

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

4. Administration of the Plan.

(a) Procedure.

- (i) General. The Plan will be administered by (A) the Board or (B) a Committee constituted to satisfy Applicable Laws. The Board or Committee will be the Administrator. Different Administrators may administer the Plan with respect to different groups of Service Providers. The Board may retain the authority to concurrently administer the Plan with a Committee and may, at any time, revoke the delegation of some or all authority previously delegated.
- (ii) Rule 16b-3. To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, the transactions contemplated hereunder will be structured to satisfy the requirements for exemption under Rule 16b-3.

(b) Powers of the Administrator. Subject to the Plan, any limitations on delegations specified by the Board, and any requirements imposed by Applicable Laws, the Administrator will have the authority, in its sole discretion, to make any determinations and perform any actions deemed necessary or advisable to administer the Plan including to:

- (i) determine the Fair Market Value;
- (ii) select the Service Providers to whom Awards may be granted hereunder;
- (iii) determine the number of Shares to be covered by each Award granted hereunder;
- (iv) approve forms of Award Agreements for use under the Plan;
- (v) determine the terms and conditions, not inconsistent with the terms of the Plan, of any Award granted hereunder. The terms and conditions include, but are not limited to, the exercise price, the time or times when Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions and any restriction or limitation regarding any Award or the Shares relating to an Award;
- (vi) establish, amend and rescind rules and regulations and adopt sub-plans relating to the Plan, including rules, regulations and sub-plans for the purposes of facilitating compliance with non-U.S. laws, easing the administration of the Plan and/or taking advantage of tax-favorable treatment for Awards granted to Service Providers outside the U.S.;
- (vii) interpret the Plan and make any decision necessary to administer the Plan;
- (viii) interpret, modify or amend each Award (subject to Section 17(c) of the Plan), including without limitation the discretionary authority to extend the post-termination exercisability period of Awards;
- (ix) allow Participants to satisfy tax withholding obligations in a manner prescribed in Section 15 of the Plan;
- (x) authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Award previously granted by the Administrator;
- (xi) delegate ministerial duties to any of the Company's employees;

- (xii) temporarily suspend the exercisability of an Award if the Administrator deems such suspension to be necessary or appropriate for administrative purposes;
 - (xiii) allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that otherwise would be due to the Participant under an Award; and
 - (xiv) make all other determinations deemed necessary or advisable for administering the Plan.
- (c) Grant Date. The grant date of an Award (“Grant Date”) will be the date that the Administrator makes the determination granting such Award or may be a later date if such later date is designated by the Administrator on the date of the determination or under an automatic grant policy. Notice of the determination will be provided to each Participant within a reasonable time after the Grant Date.
- (d) Waiver. The Administrator may waive any terms, conditions or restrictions.
- (e) Fractional Shares. Except as otherwise provided by the Administrator, any fractional Shares that result from the adjustment of Awards will be cancelled. Any fractional Shares that result from vesting percentages will be accumulated and vested on the date that an accumulated full Share is vested.
- (f) Electronic Delivery. The Company may deliver by e-mail or other electronic means (including posting on a website maintained by the Company or its agent) all documents relating to the Plan or any Award and all other documents that the Company is required to deliver to its security holders (including prospectuses, annual reports and proxy statements).
- (g) Choice of Law; Choice of Forum. The Plan, all Awards and all determinations made and actions taken under the Plan, to the extent not otherwise governed by the laws of the United States, will be governed by the laws of the State of Delaware without giving effect to principles of conflicts of law. For purposes of litigating any dispute that arises under this Plan, a Participant’s acceptance of an Award is his or her consent to the jurisdiction of the State of Delaware, and agreement that any such litigation will be conducted in Delaware Court of Chancery, or the federal courts for the United States for the District of Delaware, and no other courts, regardless of where a Participant’s services are performed.
- (h) Effect of Administrator’s Decision. The Administrator’s decisions, determinations and interpretations will be final and binding on all Participants and any other holders of Awards and will be given the maximum deference permitted by Applicable Laws.
- (i) Exchange Program. The Administrator may not institute an Exchange Program.
5. Eligibility. Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Shares and Performance Units may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.
6. Stock Options.
- (a) Grant of Options. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Options to Service Providers in such amounts as the Administrator determines in its sole discretion.
 - (b) Stock Option Agreement. Each Option will be evidenced by an Award Agreement that will specify the exercise price, the number of Shares subject to the Option, the exercise restrictions, if any, applicable to the Option, and such other terms and conditions as the Administrator determines in its sole discretion.

- (c) Limitations. Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Participant during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds \$100,000, such Options will be treated as Nonstatutory Stock Options. For purposes of this Section 6(c), Incentive Stock Options will be taken into account in the order in which they were granted. The Fair Market Value of the Shares will be determined as of the time the Option with respect to such Shares is granted.
- (d) Term of Option. The term of each Option will be stated in the Award Agreement. The term of an Option will be 10 years from the Grant Date or such shorter term as may be provided in the Award Agreement. Moreover, in the case of an Incentive Stock Option granted to a Participant who, at the time the Incentive Stock Option is granted, owns stock representing more than 10% of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option will be five years from the Grant Date or such shorter term as may be provided in the Award Agreement.
- (e) Option Exercise Price and Consideration.
- (i) Exercise Price. The per share exercise price for the Shares to be issued pursuant to exercise of an Option will be determined by the Administrator, subject to the following:
- (1) In the case of an Incentive Stock Option
- (A) granted to an Employee who, at the time the Incentive Stock Option is granted, owns stock representing more than 10% of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price will be no less than 110% of the Fair Market Value per Share on the Grant Date.
- (B) granted to any Employee other than an Employee described in paragraph (A) immediately above, the per Share exercise price will be no less than 100% of the Fair Market Value per Share on the Grant Date.
- (2) In the case of a Nonstatutory Stock Option, the per Share exercise price will be determined by the Administrator and may no less than 100% of the Fair Market Value per Share on the Grant Date unless otherwise required by Applicable Laws.
- (3) Notwithstanding the foregoing, Options may be granted with a per Share exercise price of less than 100% of the Fair Market Value per Share on the Grant Date pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code.
- (ii) Waiting Period and Exercise Dates. At the time an Option is granted, the Administrator will fix the period within which the Option may be exercised and will determine any conditions that must be satisfied before the Option may be exercised.
- (iii) Form of Consideration. The Administrator will determine the acceptable form of consideration for exercising an Option, including the method of payment. In the case of an Incentive Stock Option, the Administrator will determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of: (1) cash; (2) check or wire transfer; (3) promissory note, to the extent permitted by Applicable Laws; (4) other Shares, provided that such Shares have a fair market value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option will be exercised and provided that accepting such Shares will not result in any adverse accounting

consequences to the Company, as the Administrator determines in its sole discretion; (5) consideration received by the Company under a broker-assisted (or other) cashless exercise program (whether through a broker or otherwise) implemented by the Company in connection with the Plan; (6) net exercise, under which Shares are withheld from otherwise deliverable Shares that has been approved by the Board or a Committee; (7) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws; or (8) any combination of the foregoing methods of payment.

(f) Exercise of Option.

- (i) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder will be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Award Agreement. Notwithstanding the foregoing, at any time after the grant of an Option, the Administrator, in its sole discretion, may accelerate the time at which the Option will vest or become exercisable. An Option may not be exercised for a fraction of a Share.

An Option will be deemed exercised when the Company receives: (i) notice of exercise (in accordance with the procedures that the Administrator may specify from time to time) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised (together with any amounts necessary to satisfy withholding obligations for Tax-Related Items). Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Award Agreement and the Plan. Shares issued upon exercise of an Option will be issued in the name of the Participant or, if requested by the Participant and approved by the Administrator, in the name of the Participant and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to an Option, notwithstanding the exercise of the Option. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 14 of the Plan.

Exercising an Option in any manner will decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

- (ii) Termination of Relationship as a Service Provider. If a Participant ceases to be a Service Provider, other than upon the cessation of the Participant's Service Provider status as the result of the Participant's death or Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of cessation of the Participant's Service Provider status (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for three months following cessation of the Participant's Service Provider status. Unless otherwise provided by the Administrator, if on the date of cessation of the Participant's Service Provider status the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If, after cessation of the Participant's Service Provider status, the Participant does not exercise his or her Option within the time specified in the Award Agreement or herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.
- (iii) Disability of Participant. If a Participant ceases to be a Service Provider as a result of the Participant's Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent the Option is vested on the date of cessation of the Participant's Service Provider status (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for 12 months following cessation of the Participant's Service Provider status. Unless otherwise provided by the Administrator, if on the date of cessation of the Participant's Service Provider status the Participant is not vested as to his or her entire Option, the Shares

covered by the unvested portion of the Option will revert to the Plan. If, after cessation of the Participant's Service Provider status, the Participant does not exercise his or her Option within the time specified in the Award Agreement or herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

- (iv) Death of Participant. If a Participant dies while a Service Provider, the Option may be exercised following the Participant's death within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of death (but in no event may the Option be exercised later than the expiration of the term of such Option as set forth in the Award Agreement), by the Participant's designated beneficiary, provided the Administrator has permitted the designation of a beneficiary and provided such beneficiary has been designated prior to the Participant's death in a form acceptable to the Administrator. If the Administrator has not permitted the designation of a beneficiary or if no such beneficiary has been designated by the Participant, then such Option may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Option is transferred pursuant to the Participant's will or in accordance with the laws of descent and distribution. In the absence of a specified time in the Award Agreement, the Option will remain exercisable for 12 months following the Participant's death. Unless otherwise provided by the Administrator, if at the time of death, the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will immediately revert to the Plan. If the Option is not so exercised within the time specified in the Award Agreement or herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.
- (v) Tolling Expiration. A Participant's Award Agreement may also provide that:
 - (1) if the exercise of the Option following the cessation of the Participant's status as a Service Provider (other than upon the Participant's death or Disability) would result in liability under Section 16(b), then the Option will terminate on the earlier of (A) the expiration of the term of the Option set forth in the Award Agreement, or (B) the 10th day after the last date on which such exercise would result in liability under Section 16(b); or
 - (2) if the exercise of the Option following the cessation of the Participant's status as a Service Provider (other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of Shares would violate the registration requirements under the Securities Act, then the Option will terminate on the earlier of (A) the expiration of the term of the Option or (B) the expiration of a period of 30 days after the cessation of the Participant's status as a Service Provider during which the exercise of the Option would not be in violation of such registration requirements.

7. Restricted Stock.

- (a) Grant of Restricted Stock. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Shares of Restricted Stock to Service Providers in such amounts as the Administrator determines in its sole discretion.
- (b) Restricted Stock Agreement. Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify any Period of Restriction, the number of Shares granted, and such other terms and conditions as the Administrator determines in its sole discretion. Unless the Administrator determines otherwise, the Company as escrow agent will hold Shares of Restricted Stock until the restrictions on such Shares have lapsed.

- (c) Transferability. Except as provided in this Section 7 of the Award Agreement, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of any applicable Period of Restriction.
- (d) Other Restrictions. The Administrator, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate.
- (e) Removal of Restrictions. Except as otherwise provided in this Section 7, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan will be released from escrow as soon as practicable after the last day of any applicable Period of Restriction or at such other time as the Administrator may determine. Notwithstanding the foregoing, at any time after the grant of an Option, the Administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed.
- (f) Voting Rights. During any applicable Period of Restriction, Service Providers holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.
- (g) Return of Restricted Stock to Company. On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed will revert to the Company and again will become available for grant under the Plan.

8. Restricted Stock Units.

- (a) Grant. Restricted Stock Units may be granted at any time and from time to time as determined by the Administrator. After the Administrator determines that it will grant Restricted Stock Units under the Plan, it will advise the Participant in an Award Agreement of the terms, conditions and restrictions related to the grant, including the number of Restricted Stock Units.
- (b) Restricted Stock Unit Agreement. Each Award of Restricted Stock Units will be evidenced by an Award Agreement that will specify vesting criteria, the number of Restricted Stock Units granted and such other terms and conditions as the Administrator determines in its sole discretion.
- (c) Vesting Criteria and Other Terms. The Administrator will set vesting criteria in its discretion, which, depending on the extent to which the criteria are met, will determine the number of Restricted Stock Units that will be paid out to the Participant. The Administrator may set vesting criteria based upon the achievement of Company-wide, divisional, business unit or individual goals (including, but not limited to, continued employment or service), applicable U.S. or non-U.S. federal or state securities laws or any other basis determined by the Administrator in its discretion.
- (d) Earning Restricted Stock Units. Upon meeting the applicable vesting criteria, the Participant will be entitled to receive a payout as determined by the Administrator. Notwithstanding the foregoing, at any time after the grant of Restricted Stock Units, the Administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.
- (e) Form and Timing of Payment. Payment of earned Restricted Stock Units will be made as soon as practicable after the date(s) determined by the Administrator and set forth in the Award Agreement. The Administrator, in its sole discretion, may settle earned Restricted Stock Units only in cash, Shares, or a combination of both.
- (f) Cancellation. On the date set forth in the Award Agreement, all unearned Restricted Stock Units will be forfeited to the Company.

9. Stock Appreciation Rights.

- (a) Grant of Stock Appreciation Rights. Subject to the terms and conditions of the Plan, a Stock Appreciation Right may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion.
- (b) Stock Appreciation Right Agreement. Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Stock Appreciation Right (which shall not exceed 10 years), the conditions of exercise, and such other terms and conditions as the Administrator determines in its sole discretion. Notwithstanding the foregoing, at any time after the grant of a Stock Appreciation Right, the Administrator, in its sole discretion, may accelerate the time at which the Stock Appreciation Right will vest or become exercisable.
- (c) Number of Shares. The Administrator will have complete discretion to determine the number of Stock Appreciation Rights granted to any Service Provider.
- (d) Exercise Price and Other Terms. The per share exercise price for the Shares to be issued pursuant to exercise of a Stock Appreciation Right will be determined by the Administrator and will be no less than 100% of the Fair Market Value per Share on the Grant Date. Otherwise, the Administrator, subject to the provisions of the Plan, will have complete discretion to determine the terms and conditions of Stock Appreciation Rights granted under the Plan.
- (e) Expiration of Stock Appreciation Rights. A Stock Appreciation Right granted under the Plan will expire upon the date as determined by the Administrator, in its sole discretion, and set forth in the Award Agreement. Notwithstanding the foregoing, the tolling and expiration rules of Section 6(f) relating to exercise also will apply to Stock Appreciation Rights. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to a Stock Appreciation Right, notwithstanding the exercise of the Stock Appreciation Right. The Company will issue (or cause to be issued) such Shares promptly after the Stock Appreciation Right is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Stock Appreciation Rights are issued, except as provided in Section 14 of the Plan.
- (f) Payment of Stock Appreciation Right Amount. Upon exercise of a Stock Appreciation Right, a Participant will be entitled to receive payment from the Company in an amount determined as the product of:
 - (i) The difference between the Fair Market Value of a Share on the date of exercise over the exercise price; and
 - (ii) The number of Shares with respect to which the Stock Appreciation Right is exercised.

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

10. Performance Units and Performance Shares.

- (a) Grant of Performance Units/Shares. Performance Units and Performance Shares may be granted to Service Providers at any time and from time to time, as will be determined by the Administrator, in its sole discretion. The Administrator will have complete discretion in determining the number of Performance Units and Performance Shares granted to each Participant.
- (b) Value of Performance Units/Shares. Each Performance Unit will have an initial value that is established by the Administrator on or before the Grant Date. Each Performance Share will have an initial value equal to the Fair Market Value of a Share on the Grant Date.

- (c) Performance Objectives and Other Terms. The Administrator will set performance objectives or other vesting provisions (including, without limitation, continued status as a Service Provider) in its discretion which, depending on the extent to which they are met, will determine the number or value of Performance Units/Shares that will be paid out to the Service Providers. The time period during which the performance objectives or other vesting provisions must be met will be called the “Performance Period.” Each Award of Performance Units/Shares will be evidenced by an Award Agreement that will specify the Performance Period, and such other terms and conditions as the Administrator determines in its sole discretion. The Administrator may set performance objectives based upon the achievement of Company-wide, divisional, business unit or individual goals (including, but not limited to, continued employment or service), applicable U.S. or non-U.S. federal or state securities laws, or any other basis determined by the Administrator in its discretion.
- (d) Earning of Performance Units/Shares. After the applicable Performance Period has ended, the holder of Performance Units/Shares will be entitled to receive a payout of the number of Performance Units/Shares earned by the Participant over the Performance Period, to be determined as a function of the extent to which the corresponding performance objectives or other vesting provisions have been achieved. Notwithstanding the foregoing, at any time after the grant of a Performance Unit/Share, the Administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such Performance Unit/Share.
- (e) Form and Timing of Payment of Performance Units/Shares. Payment of earned Performance Units/Shares will be made as soon as practicable after the expiration of the applicable Performance Period. The Administrator, in its sole discretion, may pay earned Performance Units/Shares in the form of cash, in Shares (which have an aggregate Fair Market Value equal to the value of the earned Performance Units/Shares at the close of the applicable Performance Period) or in a combination thereof.
- (f) Cancellation of Performance Units/Shares. On the date set forth in the Award Agreement, all unearned or unvested Performance Units/Shares will be forfeited to the Company, and again will be available for grant under the Plan.

11. Award Limitations.

- (a) Outside Director Award Limitations. No Outside Director may be paid compensation for service as an Outside Director in their capacity as a Director, that, in the aggregate, exceeds \$400,000, increased to \$800,000 for such Outside Director for the Fiscal Year in which he or she joins the Board as an Outside Director. Compensation includes equity awards, including any Awards issued under this Plan, the value of which will be based on their grant date fair value determined in accordance with U.S. generally accepted accounting principles and any other compensation (including without limitation any cash retainers or fees). Any Awards or other compensation paid or provided to an individual for his or her services as an Employee, or for his or her services as a Consultant (other than as an Outside Director), will not count for purposes of the limitation under this Section 11(a).
- (b) Dividends and Other Distributions. No dividends or other distributions shall be paid with respect to any Shares underlying any unvested portion of an Award.
- (c) Minimum Vesting Requirements. Notwithstanding any other provision of the Plan to the contrary, Awards granted under the Plan that are payable in shares of Common Stock shall vest no earlier than the first anniversary of the date on which the Award was granted (or the date of commencement of employment or service, in the case of a grant made in connection with a Participant’s commencement of employment or service); provided, that the foregoing minimum vesting requirement does not apply to: (i) Substituted Awards, (ii) shares of Common Stock delivered in lieu of fully vested cash-based obligations, (iii) Awards granted to Outside Directors that are not covered by clause (ii) above and that vest on the earlier of the one-year anniversary of the date on which the Award was granted and the next annual meeting of stockholders and (iv) Awards with

respect to a maximum of 5% of the maximum number of shares of Common Stock that may be granted under the Plan pursuant to Section 3(a) (subject to adjustment under Section 14). Notwithstanding the foregoing minimum vesting requirement, the Administrator may, in its discretion, provide for accelerated vesting or exercisability of an Award, in connection with a Participant's retirement, death, Disability or in connection with or following a Change in Control, in the terms of an Award Agreement or otherwise.

12. Leaves of Absence/Transfer Between Locations. Unless the Administrator provides otherwise or Applicable Laws require otherwise, vesting of Awards will be suspended during any unpaid leave of absence. A Participant will not cease to be an Employee in the case of (i) any leave of absence approved by the Company or the Participant's employer or (ii) transfers between locations of the Company or between the Company, its Parent or any of its Subsidiaries. For purposes of Incentive Stock Options, no such leave may exceed three months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company or the Participant's employer is not so guaranteed, then six months following the first day of such leave any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.
13. Transferability of Awards.
- (a) General Rule. Unless determined otherwise by the Administrator, or otherwise required by Applicable Laws, an Award may not be sold, pledged, assigned, hypothecated, transferred or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, the Award will be limited by any additional terms and conditions imposed by the Administrator. Any unauthorized transfer of an Award will be void.
 - (b) Domestic Relations Orders. If approved by the Administrator, an Award may be transferred pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulations Section 1.421-1(b)(2). An Incentive Stock Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.
 - (c) Limited Transfers for the Benefit of Family Members. The Administrator may permit an Award or Share issued under this Plan to be assigned or transferred subject to the applicable limitations, set forth in the General Instructions to Form S-8 Registration Statement under the Securities Act, if applicable, and any other Applicable Laws. For the avoidance of doubt, no Award may be assigned or transferred to a third-party financial institution.
 - (d) Permitted Transferees. Any individual or entity to whom an Award is transferred will be subject to all of the terms and conditions applicable to the Participant who transferred the Award, including the terms and conditions in this Plan and the Award Agreement. If an Award is unvested, then the service of the Participant will continue to determine whether the Award will vest and when it will terminate.
14. Adjustments; Dissolution or Liquidation; Merger or Change in Control; Death.
- (a) Adjustments. In the event that any extraordinary dividend or other extraordinary distribution (whether in the form of cash, Shares, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, reclassification, repurchase, or exchange of Shares or other securities of the Company or other change in the corporate structure of the Company affecting the Shares occurs (other than any ordinary dividends or other ordinary distributions), the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of shares of stock that may be delivered under the Plan and/or the

number, class and price of shares of stock covered by each outstanding Award, and the numerical Share limits in Section 3 of the Plan.

- (b) Dissolution or Liquidation. In the event of a proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.
- (c) Merger or Change in Control. In the event of a merger of the Company with or into another corporation or other entity or a Change in Control, each outstanding Award will be treated as the Administrator determines (subject to the provisions of the following paragraph) without a Participant's consent, including, without limitation, that each Award be assumed or an equivalent option or right substituted by the successor corporation or its Parent. The Administrator will not be obligated to treat all Awards, all Awards held by a Participant, all Awards of the same type or all portions of Awards, similarly.

If an Option or Stock Appreciation Right (or portion thereof) is not assumed or substituted for in the event of a merger or Change in Control, the Administrator will notify the Participant in writing or electronically that such Option or Stock Appreciation Right (or its applicable portion) will be exercisable for a period of time determined by the Administrator in its sole discretion, and the Option or Stock Appreciation Right (or its applicable portion) will terminate upon the expiration of such period.

For the purposes of this Section 14(c), an Award will be considered assumed if, following the merger or Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the merger or Change in Control, the consideration (whether stock, cash or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of an Option or Stock Appreciation Right or upon the payout of a Restricted Stock Unit, Performance Unit or Performance Share, for each Share subject to such Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or Change in Control.

Notwithstanding anything in this Section 14(c) to the contrary, and unless otherwise provided in an Award Agreement or other written agreement between the Participant and the Company or any of its Subsidiaries or Parents, as applicable, an Award that vests, is earned or paid-out upon the satisfaction of one or more performance goals will not be considered assumed if the Company or its successor modifies any of such performance goals without the Participant's consent; provided, however, a modification to such performance goals only to reflect the successor corporation's post-Change in Control corporate structure will not be deemed to invalidate an otherwise valid Award assumption.

Notwithstanding anything in this Section 14(c) to the contrary, if a payment under an Award Agreement is subject to Section 409A and if the change in control definition contained in the Award Agreement or other written agreement related to the Award does not comply with the definition of "change in control" for purposes of a distribution under Section 409A, then any payment of an amount that otherwise is accelerated under this Section will be delayed until the earliest time that such payment would be permissible under Section 409A without triggering any penalties applicable under Section 409A.

- (d) Outside Director Awards. With respect to Awards granted to Outside Directors for their service as Outside Directors, in the event of a Change in Control, such Participants will fully vest in and have the right to exercise Options and/or Stock Appreciation Rights as to all of the Shares underlying such Awards, including those Shares which would not be vested or exercisable, all restrictions on such Participants' Restricted Stock and Restricted Stock Units will lapse, and, with respect to such Participants' Awards with performance-based vesting, all performance goals or other vesting criteria

will be deemed achieved at 100% of target levels and all other terms and conditions met, unless specifically provided otherwise under the applicable Award Agreements or other written agreements between the Participants and the Company or any of its Subsidiaries or Parents, as applicable.

15. Tax Matters.

- (a) Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof) or such earlier time as any withholding obligations for Tax-Related Items are due, the Company (or any of its Subsidiaries, Parents or affiliates employing or retaining the services of a Participant, as applicable) will have the power and the right to deduct or withhold, or require a Participant to remit to the Company (or any of its Subsidiaries, Parents or affiliates, as applicable), an amount sufficient to satisfy any Tax-Related Items required to be withheld with respect to such Award (or exercise thereof).
- (b) Withholding Arrangements. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy such withholding obligation for Tax-Related Items, in whole or in part by (without limitation) (i) paying cash, check or other cash equivalents, (ii) electing to have the Company withhold otherwise deliverable Shares having a fair market value equal to the minimum statutory amount applicable in a Participant's jurisdiction or such greater amount as the Administrator may determine (including up to a maximum statutory amount) if such amount would not have adverse accounting consequences, as the Administrator determines in its sole discretion, (iii) delivering to the Company already-owned Shares having a fair market value equal to the minimum statutory amount applicable in a Participant's jurisdiction or such greater amount as the Administrator may determine (including up to a maximum statutory amount), in each case, provided the delivery of such Shares will not result in any adverse accounting consequences, as the Administrator determines in its sole discretion, (iv) selling a sufficient number of Shares otherwise deliverable to the Participant through such means as the Administrator may determine in its sole discretion (whether through a broker or otherwise) to cover the amount of the withholding obligation for Tax-Related Items, (v) having the Company or a Parent or Subsidiary withhold from wages or any other cash amount due or to become due to the Participant and payable by the Company or any Parent or Subsidiary, (vi) any other method of withholding determined by the Administrator or (vii) any combination of the foregoing methods of payment. The withholding amount will be deemed to include any amount which the Administrator agrees may be withheld at the time the election is made, not to exceed the amount determined by using the maximum statutory rates applicable in a Participant's jurisdiction with respect to the Award on the date that the amount of Tax-Related Items to be withheld is to be determined or such greater amount as the Administrator may determine if such amount would not have adverse accounting consequences, as the Administrator determines in its sole discretion. The fair market value of the Shares to be withheld or delivered will be determined as of the date that the amount of Tax-Related Items to be withheld is calculated.
- (c) Compliance With Section 409A. Awards will be designed and operated in such a manner that they are either exempt from the application of, or comply with, the requirements of Section 409A such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Plan and each Award Agreement under the Plan is intended to meet the requirements of Section 409A, or be exempt therefrom, and will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Administrator. To the extent that an Award or payment, or the settlement or deferral thereof, is subject to Section 409A the Award will be granted, paid, settled or deferred in a manner that will meet the requirements of Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Section 409A. In no event will the Company or any of its Subsidiaries or Parents have any obligation or liability under the terms of this Plan to reimburse, indemnify, or hold harmless any Participant or any other person in respect of Awards, for any taxes, interest or penalties imposed, or other costs incurred, as a result of Section 409A.

16. Miscellaneous.

- (a) Stockholder Approval and Term of Plan. The Plan will become effective upon its approval by the Company's stockholders within 12 months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws. The Plan will continue in effect until terminated earlier under Section 17 of the Plan, but no Incentive Stock Options may be granted after 10 years from the date the Plan is adopted by the Board.
- (b) Legal Compliance. Shares will not be issued pursuant an Award unless the exercise or vesting of such Award and the issuance and delivery of such Shares will comply with Applicable Laws and will be further subject to the approval of counsel for the Company with respect to such compliance.
- (c) Investment Representations. As a condition to the exercise or vesting of an Award, the Company may require the person exercising or vesting in such Award to represent and warrant at the time of any such exercise or vesting that the Shares are being acquired only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.
- (d) Inability to Obtain Authority. If the Company determines it to be impossible or impracticable to obtain authority from any regulatory body having jurisdiction or to complete or comply with the requirements of any registration or other qualification of the Shares under any U.S. state or federal law or non-U.S. law or under the rules and regulations of the U.S. Securities and Exchange Commission, the stock exchange on which Shares of the same class are then listed or any other governmental or regulatory body, which authority, registration, qualification or rule compliance is deemed by the Company's counsel to be necessary or advisable for the issuance and sale of any Shares hereunder, the Company will be relieved of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority, registration, qualification or rule compliance will not have been obtained.
- (e) No Effect on Employment or Service. Neither the Plan nor any Award will confer upon a Participant any right with respect to continuing the Participant's relationship as a Service Provider, nor interfere in any way with the Participant's right or the right of the Company and its Subsidiaries or Parents, as applicable, to terminate such relationship at any time, with or without cause, to the extent permitted by Applicable Laws.
- (f) Forfeiture Events. The Administrator may specify in an Award Agreement that the Participant's rights, payments and benefits with respect to an Award will be subject to reduction, cancellation, forfeiture, recoupment, reimbursement or reacquisition upon the occurrence of certain specified events, in addition to any otherwise applicable vesting or performance conditions of an Award. Notwithstanding any provisions to the contrary under this Plan, an Award and any other compensation paid or payable to a Participant (including, but not limited to, equity awards issued outside of this Plan) (such compensation, "Other Compensation") will be subject to the Company's clawback policy in effect as of the adoption of this Plan, and will be subject to any other clawback policy of the Company as may be established and/or amended from time to time to comply with Applicable Laws (including without limitation pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as may be required by the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act) (the "Clawback Policy"). The Administrator may require a Participant to forfeit, return or reimburse the Company all or a portion of the Award or Other Compensation and any amounts paid thereunder pursuant to the terms of the Clawback Policy or as necessary or appropriate to comply with Applicable Laws. Unless this subsection (f) specifically is mentioned and waived in an Award Agreement or other document, no recovery of compensation under a Clawback Policy or otherwise will constitute an event that triggers or contributes to any right of a Participant to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company or any Parent or Subsidiary.

17. Amendment and Termination of the Plan.

- (a) Amendment and Termination. The Administrator, at any time, may amend, alter, suspend or terminate the Plan.
- (b) Stockholder Approval. The Company will obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.
- (c) Consent of Participants Generally Required. Subject to Section 17(d) below, no amendment, alteration, suspension or termination of the Plan or an Award under it will materially impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it regarding Awards granted under the Plan prior to such termination.
- (d) Exceptions to Consent Requirement.
 - (i) A Participant's rights will not be deemed to have been impaired by any amendment, alteration, suspension or termination if the Administrator, in its sole discretion, determines that the amendment, alteration, suspension or termination taken as a whole, does not materially impair the Participant's rights, and
 - (ii) Subject to the limitations of Applicable Laws, if any, the Administrator may amend the terms of any one or more Awards without the affected Participant's consent even if it does materially impair the Participant's right if such amendment is done:
 - (1) in a manner expressly permitted under the Plan;
 - (2) to maintain the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code;
 - (3) to change the terms of an Incentive Stock Option, if such change results in impairment of the Award only because it impairs the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code;
 - (4) to clarify the manner of exemption from, or to bring the Award into compliance with, Section 409A; or
 - (5) to comply with other Applicable Laws.