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 $\ \square$

Check the appropriate box:

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

Organovo Holdings, Inc.

(Name of Registrant as Specified In Its Charter)

Not Applicable

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

☑ No fee required.

- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies:
 - (2) Aggregate number of securities to which transaction applies:
 - (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
 - (4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

□ Fee paid previously with preliminary materials.

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

- (1) Amount Previously Paid:
- (2) Form, Schedule or Registration Statement No.
- (3) Filing Party:
- (4) Date Filed:

ORGANOVO HOLDINGS, INC. 440 STEVENS AVENUE SUITE 200 SOLANA BEACH, CA 92075

VOTE BY INTERNET Before The Meeting - Go to <u>www.proxyvote.com</u>

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time on September 13, 2021. Have your proxy card in hand when you access the veb site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/ONVO2021

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 pm. Eastern Time September 13, 2021. 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, do Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

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

_				D57723-P59479	KEEP THIS P	ORTION	FOR YOU	r record
	THIS PRO	OXY CARD IS	S VALID ONLY	WHEN SIGNED AND DATED.	DETACH AND	RETURN	THIS POP	TION ONL
RGAN	NOVO HOLDINGS, INC.							
	Board of Directors recommends you vote FOR the owing:						_	
1.	To elect Alison Tjosvold Milhous as Class I director to hold office until the 2024 Annual Meeting of Stockholders and until a successor is elected and qualified. Nominee:	For	Withhold					I
	1a. Alison Tjosvold Milhous	п	Ο					
	ra. Alison hosvoid telinous	U	U					
The	Board of Directors recommends you vote FOR propos	sals 2, 3 and 4	k.			For /	Against	Abstain
2	To ratify the appointment of Mayer Hoffman McCan March 31, 2022.	n P.C. as our	independent re	gistered public accounting firm for the fiscal	year ending	D	D	Ο
3	To hold a non-binding advisory vote on the compensation	n of our name	d executive office	ers.		Ο	D	Ο
I.,	To approve an amendment and restatement of the Organ authorized for issuance thereunder by 900,000 shares.	novo Holdings,	Inc. Amended ar	nd Restated 2012 Equity Plan to increase the num	ber of shares	0	Ο	0
^p lea adm	TE: In their discretion, the proxies are authorized to vote upo se sign exactly as your name(s) appear(s) hereon. When inistrator, or other fiduciary, please give full title as such onally. All holders must sign. If a corporation or partnershi artnership name by authorized officer.				nent thereof.			
	autorized officer.							
Sigr	ature [PLEASE SIGN WITHIN BOX] Date			Signature (Joint Owners)	Date			

You are cordially invited to attend our 2021 Annual Meeting of Stockholders, to be held virtually via live webcast at www.virtualshareholdermeeting.com/ONVO2021 at 9:00 a.m. Pacific Time on September 14, 2021.

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.

				D57724-P59479
	Annual September 1	ANOVO HOLDIN Meeting of Sto 14, 2021, 9:00 a. plicited by the B	ckholders	
o appoint his subst his proxy, all of the t the Annual Meetii	eby appoints Keith Murphy a itute, and hereby authorizes shares of Common Stock o ng of Stockholders to be hel ermeeting.com/ONVO2021 a	them to represent f ORGANOVO HOLI d at 9:00 a.m. Pacit	and to vote, as designation DINGS, INC. that the und fic Time on September 14	ted on the reverse side of ersigned is entitled to vote
S MADE, THIS PROX	PROPERLY EXECUTED, WILL (Y WILL BE VOTED "FOR" T DE AND "FOR" PROPOSALS	HE NOMINEE FOR		

<section-header><section-header><text><text><text>

21

CRESHOVO HOLDING SINC. 440 STRANS SYMMUS SUTE 200 SOLINIA EXCH, CA SROTE

D57726-P59479

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 14, 2021.

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 31, 2021. 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.

Control #	
Smartphone users Point your camera here and vote without entering a control number	Vote Virtually at the Meeting September 14, 2021 9:00 a.m. Paditic Time Virtually at: www.virtualshareholdermeeting.com/0 NV02021

*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.

Vo	Voting Items		
1.	To elect Alison Tjosvold Milhous as Class I director to hold office until the 2024 Annual Meeting of Stockholders and until a successor is elected and qualified. Nominee: 1a. Alison Tjosvold Milhous	S 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, 2022.	Ser For	
3.	To hold a non-binding advisory vote on the compensation of our named executive officers.	Ser 60	
4.	To approve an amendment and restatement of the Organovo Holdings, Inc. Amended and Restated 2012 Equity Plan to increase the number of shares authorized for issuance thereunder by 900,000 shares.	Ser 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"

D57727-P59479