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

Filed by the Registrant ⊠					
Filed by a party other than the Registrant \Box					
Check the appropriate box:					
\boxtimes	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				
Axcella Health Inc.					
(Name of Registrant as Specified in Its Charter)					
	(Name of Person(s) Filing Proxy Statement, if other than the Registrant)				
Pay	(Name of Person(s) Filing Proxy Statement, if other than the Registrant) wment of Filing Fee (Check all boxes that apply):				
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	ment of Filing Fee (Check all boxes that apply):				

PRELIMINARY PROXY STATEMENT — SUBJECT TO COMPLETION, DATED NOVEMBER 6, 2023

AXCELLA HEALTH INC. D/B/A AXCELLA THERAPEUTICS

P.O. Box 1270 Littleton, Massachusetts 01460

NOTICE OF 2023 SPECIAL MEETING OF STOCKHOLDERS To be held on [•], 2023

You are invited to attend a special meeting of stockholders (the "Special Meeting") of Axcella Health Inc., a Delaware corporation ("Axcella"), which will be held on [•], 2023 at [•] a.m. Eastern Time, as it may be adjourned or postponed from time to time. Our Special Meeting will be held in a virtual-only format. You may attend the meeting, submit questions, and vote your shares electronically during the meeting via live webcast by visiting: www.virtualshareholdermeeting.com/AXLA2023SM.

The attached Notice of Special Meeting of Stockholders and proxy statement contain details of the business to be conducted at the Special Meeting.

Whether or not you attend the Special Meeting, it is important that your shares be represented and voted at the meeting. Therefore, I urge you to promptly vote and submit your proxy via the Internet, by phone, or by signing, dating and returning the enclosed proxy card in the enclosed envelope. If you decide to attend the Special Meeting, you will be able to change your vote or revoke your proxy, even if you have previously submitted your proxy.

Only Axcella stockholders of record at the close of business on November 13, 2023, will be entitled to vote at the Special Meeting and any adjournment or postponement thereof.

Your vote is important. Whether or not you are able to attend the meeting, it is important that your shares be represented. To ensure that your vote is recorded, please vote as soon as possible, even if you plan to attend the meeting, by submitting your proxy via the Internet at the address listed on the proxy card or by signing, dating and returning the proxy card.

Our Special Meeting will be held in a virtual-only format. You may attend the meeting, submit questions, and vote your shares electronically during the meeting via live webcast by visiting: www.virtualshareholdermeeting.com/AXLA2023SM.

We urge you to vote your shares over the Internet or by telephone as provided in the instructions set forth on the enclosed proxy card, or complete, date, sign and promptly return the enclosed proxy card whether or not you expect to attend the Special Meeting. A postage-prepaid envelope, addressed to Broadridge Financial Solutions, which is serving as proxy tabulator, has been enclosed for your convenience. If you attend the Special Meeting in person, your proxy will, upon your written request, be returned to you and you may vote your shares in person.

On behalf of Axcella, I would like to thank you for your continued support.

Sincerely,

/s/ Craig R. Jalbert

Craig R. Jalbert

President and Chief Executive Officer

AXCELLA HEALTH INC. D/B/A AXCELLA THERAPEUTICS

P.O. Box 1270 Littleton, Massachusetts 01460

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

Time and Date

[•], 2023 at [•]a.m. Eastern Time

The special meeting of stockholders (the "Special Meeting") of Axcella Health Inc. ("Axcella," the "Company," "we," "us" and "our") will be held in a virtual format only at www.virtualshareholdermeeting.com/AXLA2023SM.

Items of Business

- To consider and vote upon a proposal to approve the resolutions attached hereto as Exhibit A, approving and authorizing the board of directors' (the "Board") determination to effect the transfer of all or substantially all of Axcella's assets through an assignment for the benefit of creditors (the "Assignment," and such proposal, the "Assignment Proposal").
- The approval of the liquidation and dissolution of the Company (the "Dissolution") and the Plan of Liquidation and Dissolution (the "Plan of Dissolution"), attached hereto as Exhibit B, which, if approved, will authorize the Board to liquidate and dissolve the Company in accordance with the Plan of Dissolution (the "Dissolution Proposal").
- To grant discretionary authority to the Board to adjourn the Special Meeting, from time to time, to a later date or dates, even if a quorum is present, to solicit additional proxies in the event that there are insufficient shares present in person or by proxy voting in favor of the Assignment Proposal or the Dissolution Proposal (the "Adjournment Proposal").
- To transact such other business as may properly come before the Special Meeting or any adjournments, postponements or continuations thereof.

Board Recommendations

After careful consideration of a number of factors, as described in the attached proxy statement, the Board has unanimously determined that the Assignment Proposal, Dissolution Proposal, and Adjournment Proposal are advisable and in the best interests of Axcella and its stockholders.

The Board unanimously recommends that you vote "FOR" each of the Assignment Proposal, Dissolution Proposal and the Adjournment Proposal.

Record Date

The close of business on November 13, 2023 (the "Record Date"). Only stockholders on the Record Date are entitled to receive notice of, and to vote at, the Special Meeting.

Proxy Voting

IMPORTANT

Please vote your shares at your earliest convenience. Promptly voting your shares via the Internet, by telephone, or by signing, dating and returning the enclosed proxy card will save the expenses and extra work of additional solicitation. If you wish to vote by mail, an addressed envelope is enclosed, postage prepaid if mailed in the United States. Submitting your proxy now will not prevent you from voting your shares at the Special Meeting, as your proxy is revocable at your option.

Important Notice Regarding the Availability of Proxy Materials for the Special Meeting to Be Held on [•] **2023 at [•] a.m. Eastern Time.** This proxy statement is available on our website at www.axcellatx.com and it is being mailed to stockholders on or about [•], 2023.

Because we have elected to utilize the "full set delivery" option, we are delivering paper copies of all of the proxy materials to all our stockholders, as well as providing access to those proxy materials on a publicly accessible website. A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, as filed with the Securities and Exchange Commission (SEC) on March 30, 2023, except for exhibits, will be furnished without charge to any stockholder upon written request to Axcella Therapeutics, P.O. Box 1270, Littleton, Massachusetts 01460, Attention: Corporate Secretary. This proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, are also available on the SEC's website at www.sec.gov.

By order of the Board of Directors,

/s/ Craig Jalbert

Craig Jalbert President and Chief Executive Officer November 6, 2023

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This proxy statement, and the documents incorporated by reference into this proxy statement, contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, but not limited to, statements regarding: Axcella's ability to effect the Assignment, the Dissolution, projected cash runways, and stockholder approval of the Assignment Proposal and Dissolution Proposal. The use of words such as, but not limited to, "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "plan," "potential," "predict," "project," "should," "target," "will," or "would" and similar words and expressions are intended to identify forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, our clinical results and other future conditions. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. No representations or warranties (expressed or implied) are made about the accuracy of any such forward-looking statements.

Forward-looking statements in this proxy statement include, but are not limited to:

- plans and expectations for the Assignment and Dissolution;
- beliefs about the Company's available options and financial condition;
- all statements regarding the tax and accounting consequences of the transactions contemplated by the Assignment and Dissolution; and
- all statements regarding the amount and timing of distributions made to stockholders, if any, in connection with the Assignment and Dissolution.

We may not actually achieve the forecasts disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Such forward-looking statements are subject to a number of material risks and uncertainties including but not limited to those set forth under the caption "Risk Factors" in Axcella's most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (the "SEC"), as well as discussions of potential risks, uncertainties, and other important factors in our subsequent filings with the SEC. Any forward-looking statement speaks only as of the date on which it was made. Neither we, nor our affiliates, advisors or representatives, undertake any obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date hereof.

WEBSITES

Website addresses referenced in this proxy statement are provided for convenience only, and the content on the referenced websites does not constitute a part of this proxy statement.

RISK FACTORS

The following risk factors, together with the other information in this proxy statement and in the "Risk Factors" sections included in the documents incorporated by reference into this proxy statement (see the section entitled "Where You Can Find More Information; Incorporation by Reference" beginning on page 37 of this proxy statement), should be carefully considered before deciding whether to vote to approve the Dissolution Proposal as described in this proxy statement. In addition, stockholders should keep in mind that the risks described below are not the only risks that are relevant to your voting decision. The risks described below are the risks that we currently believe are the material risks of which our stockholders should be aware. Nonetheless, additional risks that are not presently known to us, or that we currently believe are not material, may also prove to be important. Notably, the Company cautions that trading in the Company's securities is highly speculative and poses substantial risks.

Trading prices for the Company's securities may bear little or no relationship to the actual value realized, if any, by holders of the Company's securities. Accordingly, the Company urges extreme caution with respect to existing and future investments in its securities.

RISKS RELATED TO THE ASSIGNMENT AND DISSOLUTION

We cannot assure you as to the amount of distributions, if any, to be made to our stockholders.

Our current intention is that, if approved by our stockholders, the Assignment would be effected, and the Certificate of Dissolution would be filed, promptly after approval of the Assignment Proposal and the Dissolution Proposal. No further stockholder approval would be required to effect the Assignment or Dissolution.

However, we cannot predict with certainty the timing or amount of distributions, if any, to our stockholders. As described in the section entitled "Proposal 1: Approval of Assignment" beginning on page 16 of this proxy statement, the Assignment will entail the assignment by the Company of all of its right, title, interest in, and custody and control of its property to a third-party assignee (the "Assignee") who will liquidate the property and distribute the proceeds to the Company's creditors to satisfy the Company's obligations. If any proceeds remain after all of the Company's obligations and costs associated with the liquidation process have been satisfied, any remaining proceeds will be distributed to the Company's stockholders. We cannot predict the timing or amount of any such distributions to stockholder, as uncertainties as to the ultimate amount of the Company's liabilities, the operating costs and amounts to be set aside for claims, obligations and provisions during the Assignment and Dissolution processes, and the related timing to complete such transactions, make it impossible to predict with certainty the actual net cash amount that will ultimately be available for distribution to stockholders or the timing of any such distributions. Examples of uncertainties that could reduce the value of distributions to our stockholders include: unanticipated costs of the Assignee relating to the Assignment process, amounts necessary to satisfy claims of any creditors or other third parties, and delays in the liquidation of the Company's assets by the Assignee.

The Assignee will determine the timing of the distribution of the remaining amounts, if any, to our stockholders. We can provide no assurance as to if or when any such distribution will be made, and we cannot provide any assurance as to the amount to be paid to stockholders in any such distribution, if one is made. Stockholders may receive substantially less than the amount that we currently estimate that they may receive, or they may receive no distribution at all.

If our stockholders do not approve the Assignment Proposal and Dissolution Proposal, we would not be able to continue our business operations.

If our stockholders do not approve the Assignment Proposal and Dissolution Proposal, the Board will continue to explore what, if any, alternatives are available for the future of the Company in light of its discontinued business activities; however, those alternatives are likely limited to seeking voluntary dissolution at a later time with potentially diminished assets, seeking bankruptcy protection (should our net assets decline to levels that would require such action) or investing our cash in another operating business. It is unlikely that these alternatives would result in greater stockholder value than the proposed Assignment and Dissolution.

Our stockholders of record will not be able to buy or sell shares of our common stock after we close our stock transfer books on the Effective Time.

If the Board determines to proceed with the Dissolution, we intend to close our stock transfer books and discontinue recording transfers of our common stock at the time of the filing of the Certificate of Dissolution (the "Effective Time"). After we close our stock transfer books, we will not record any further transfers of our common stock on our books except by will, intestate succession or operation of law. Therefore, shares of our common stock will not be freely transferable after the Effective Time. As a result of the closing of the stock transfer books, any liquidating distributions by the Assignee to stockholders will likely be made pro rata to the same stockholders of record as the stockholders of record as of the Effective Time.

We plan to initiate steps to exit from certain reporting requirements under the Exchange Act, which may substantially reduce publicly available information about us. If the exit process is protracted, we will continue to bear the expense of being a public reporting company despite having no source of revenue.

Our common stock is currently registered under the Exchange Act, which requires that we, and our officers and directors with respect to Section 16 of the Exchange Act, comply with certain public reporting and proxy statement requirements thereunder. Compliance with these requirements is costly and time-consuming. We recently had a hearing before the Nasdaq Hearings Panel with respect to the delisting of our common stock on Nasdaq and plan to initiate steps to exit from such reporting requirements in order to curtail expenses; however, such process may be protracted and we may be required to continue to file Current Reports on Form 8-K or other reports to disclose material events, including those related to the Assignment and/or Dissolution. Accordingly, we will continue to incur expenses that will reduce the amount available for distribution by the Assignee, including expenses of complying with public company reporting requirements and paying the Company's service providers, among others. If our reporting obligations cease, publicly available information about us will be substantially reduced.

Stockholders may not be able to recognize a loss for U.S. federal income tax purposes until they receive a final distribution from the Assignee.

As a result of the Assignment and Dissolution, for U.S. federal income tax purposes, a stockholder that is a U.S. person generally will recognize gain or loss on a share-by-share basis equal to the difference between (1) the sum of the amount of cash and the fair market value of property, if any, distributed to the stockholder with respect to each share, less any known liabilities assumed by the stockholder or to which the distributed property (if any) is subject, and (2) the stockholder's adjusted tax basis in each share of our common stock. A distribution by the Assignee may occur at various times and in more than one tax year. Any loss generally will be recognized by a stockholder only in the tax year in which the stockholder receives a final distribution, and then only if the aggregate value of all distributions with respect to a share of our common stock is less than the stockholder's tax basis for that share. Stockholders are urged to consult with their own tax advisors as to the specific tax consequences to them of the Assignment and Dissolution.

The tax treatment of any distribution may vary from stockholder to stockholder, and the discussions in this proxy statement regarding tax consequences are general in nature.

We have not requested a ruling from the IRS with respect to the anticipated tax consequences of the Assignment and Dissolution, and we will not seek an opinion of counsel with respect to the anticipated tax consequences of any distributions. If any of the anticipated tax consequences described in this proxy statement prove to be incorrect, the result could be increased taxation at the corporate or stockholder level, thus reducing the benefit to our stockholders from the Assignment and Dissolution. Tax considerations applicable to particular stockholders may vary with and be contingent on the stockholder's individual circumstances. You should consult your own tax advisor for tax advice instead of relying on the discussions of tax consequences in this proxy statement.

SUMMARY

This summary highlights selected information contained in this proxy statement and may not contain all of the information that is important to you. To understand fully the legal requirements for the transfer of all or substantially all of the assets of Axcella Health Inc. ("Axcella," the "Company," "we," "us," and "our") through an assignment for the benefit of creditors under Delaware law and the Special Meeting (as defined below), you should carefully read this entire proxy statement and the documents delivered with this proxy statement.

About Axcella

We are a clinical-stage biotechnology company focused on pioneering a new approach to treat complex diseases using compositions of endogenous metabolic modulators, or EMMs. Our product candidates are comprised of multiple EMMs that are engineered in distinct combinations and ratios with the goal of simultaneously impacting multiple biological pathways. Our pipeline includes lead therapeutic candidates for the treatment of Long COVID (also known as Post COVID-19 Condition and Post-Acute Sequelae of COVID-19, or "PASC") associated fatigue, and the treatment of non-alcoholic steatohepatitis, or NASH. Axcella's common stock, par value \$0.001 per share (the "Common Stock"), is traded on the Nasdaq Global Market under the symbol "AXLA."

On September 19, 2023, we effected a reverse stock split at a ratio of 1-for-25 (the "Reverse Stock Split"). Unless otherwise noted in this proxy statement, all share amounts are reflected on a post-Reverse Stock Split basis.

General

Axcella's Board of Directors (the "Board") has determined that due to, among other things, an inability to raise the additional capital needed to continue to fund Axcella's operations and service its obligations in the future, it is advisable and in the best interests of Axcella and Axcella's stockholders that Axcella assign all or substantially all of Axcella's assets for the benefit of Axcella's creditors (the "Assignment"). The Assignment is a state-law governed insolvency procedure, which, assuming approval of the Assignment Proposal by Axcella's stockholders, is commenced by Axcella entering a contractual assignment (the "Assignment Agreement") that effectuates the assignment, grant, conveyance, transfer, and setting over to a third-party assignee (the "Assignee") of all of Axcella's currently existing right, title, and interest in all real or personal property and all other assets, whatsoever and where so ever situated. Upon the execution of the Assignment Agreement, the Assignee will have sole control over Axcella's assets and Axcella will no longer control the liquidation or distribution of its assets or the resolution of claims. Following execution of the Assignment Agreement, the Assignee will file an application in the Delaware Court of Chancery, which commences a judicial proceeding for recognition of the assignment for the benefit of creditors. The Assignee will then liquidate the assets for the general benefit of all of Axcella's creditors according to their respective priorities at law to satisfy Axcella's obligations. If any proceeds remain after all of Axcella's obligations to creditors have been satisfied in full, those remaining proceeds will be distributed to you, the stockholders. Since Axcella does not know the final amount that the Assignee will recover from a liquidation of Axcella's assets, Axcella does not know the amounts, if any, that will be available for distribution to the stockholders.

Following the Assignment, assuming approval of the Dissolution Proposal by Axcella's stockholders, the Company will follow the dissolution and winding-up procedures prescribed by the General Corporation Law of the State of Delaware ("DGCL") pursuant to the Plan of Dissolution, which requires, among other things, that the Company file a Certificate of Dissolution with the Secretary of State of the state of Delaware (the "Secretary of State"); however, the decision of whether or not to proceed with the Dissolution and when to file the Certificate of Dissolution will be made by the Board in its sole discretion.

If the Assignment Proposal and/or Dissolution Proposal is approved, Axcella will delist from the Nasdaq Global Market. Whether or not the Assignment Proposal is approved, Axcella continues to have an obligation to comply with the applicable reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

In furtherance of the Assignment and the Dissolution, and consistent with requirements under Delaware law, the Board is presenting the Assignment Proposal (as defined below) and the Dissolution Proposal (as defined below) for approval by Axcella's stockholders.

At the Special Meeting, Axcella's stockholders will be asked to consider and vote upon proposals to (i) approve the resolutions attached hereto as Exhibit A, which approve and authorize the Assignment (the "Assignment Proposal"), (ii) approve the Company's Dissolution in accordance with the Plan of Dissolution (the "Dissolution Proposal"), and (iii) grant discretionary authority to the Board to adjourn the Special Meeting, from time to time, to a later date or dates, even if a quorum is present, to solicit additional proxies in the event that there are insufficient shares present in person or by proxy voting in favor of the Assignment Proposal or the Dissolution Proposal (the "Adjournment Proposal").

QUESTIONS AND ANSWERS REGARDING THIS SOLICITATION AND VOTING AT THE SPECIAL MEETING

The following are some of the questions you may have as an Axcella stockholder and answers to those questions. These questions and answers highlight only some of the information contained in this proxy statement. You should read carefully this entire document, including all exhibits and annexes hereto, to fully understand the Assignment Proposal, the Dissolution Proposal, the Adjournment Proposal and the voting procedures for the Special Meeting.

Special Meeting and Voting

Why am I receiving these materials, and who is soliciting my vote?

We sent you this proxy statement because our Board is soliciting your proxy to vote at the Special Meeting that Axcella is holding to seek stockholder approval of the Assignment Proposal, Dissolution Proposal, and the Adjournment Proposal, as described in further detail herein. This proxy statement summarizes the information you need to vote at the Special Meeting. You do not need to attend the Special Meeting to vote your shares.

When are this proxy statement and the accompanying materials scheduled to be sent to stockholders?

On or about [•], 2023, we will begin mailing our proxy materials, including this proxy statement, and the accompanying proxy card or, for shares held in street name (i.e., shares held for your account by a broker or other nominee), a voting instruction form. In accordance with SEC rules, we are advising our stockholders of the availability on the Internet of our proxy materials related to our forthcoming Special Meeting. Because we have elected to utilize the "full set delivery" option, we are delivering to all stockholders paper copies of all of the proxy materials, as well as providing access to those proxy materials on a publicly accessible website. This Proxy Statement, and our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 are available to our stockholders at Axcellatx.com.

Why hold a virtual meeting?

We believe that hosting a virtual meeting is in the best interest of the Company and its stockholders, enabling increased stockholder attendance and participation because stockholders can participate from any location around the world. Additionally, we believe a virtual format significantly contributes to our efforts to maintain a safe and healthy environment for our directors, members of management and stockholders who wish to attend the Special Meeting. You will be able to attend the Special Meeting online and submit your questions by visiting www.virtualshareholdermeeting.com/AXLA2023SM. You also will be able to vote your shares electronically at the Special Meeting by following the instructions below.

What is the purpose of the Special Meeting?

At the Special Meeting, stockholders will vote on the matters described in the accompanying Notice of Special Meeting and this proxy statement. The only matters expected to be voted upon at the Special Meeting are the Assignment Proposal, the Dissolution Proposal, and the Adjournment Proposal.

The Board is proposing the Assignment and Dissolution and asking stockholders to approve the Assignment Proposal and Dissolution Proposal because we are unable to continue our ongoing operations with our current cash and anticipated future cash flow and we have been unable to secure additional equity, debt or other financing. The Board has a duty to take the actions that it believes will result in the best recovery for Axcella's creditors while preserving, if possible, the potential for a distribution of any residual value to stockholders. The Board has therefore deemed it advisable and in the best interests of Axcella and its stockholders to effectuate the Assignment and Dissolution. The Board believes that the Assignment and Dissolution presents the best opportunity for the highest possible recovery under the circumstances for creditors, and while uncertain, preserving the opportunity for future payments to Axcella's stockholders depending on the results of the Assignee's liquidation process.

When is the Record Date for the Special Meeting?

The Record Date for determination of stockholders entitled to vote at the Special Meeting is the close of business on November 13, 2023.

Which stockholders may vote?

The Board has fixed the close of business on November 13, 2023 as the Record Date for determining the stockholders of Axcella who are entitled to receive notice of the Special Meeting and to vote their shares at the Special Meeting. Only stockholders as of the Record Date will be entitled to notice of, and to vote at, the Special Meeting. Each share of Axcella's Common Stock is entitled to one vote. As of the Record Date, Axcella had issued and outstanding [•] shares of Common Stock.

What am I being asked to vote on?

The Board is asking Axcella's stockholders of record at the close of business on November 13, 2023, the Record Date for the Special Meeting, to consider and vote upon the Assignment Proposal, Dissolution Proposal and Adjournment Proposal. The Board currently knows of no other business that will be presented for consideration at the Special Meeting. In the event any matters other than those referred to in the accompanying Notice of Special Meeting and this proxy statement should properly come before and be considered at the Special Meeting, it is intended that any proxy holder may vote on the matter in his or her discretion on behalf of the stockholder or stockholders granting such proxy.

Why is Axcella seeking a stockholder vote on the Adjournment Proposal?

Adjourning the Special Meeting to a later date will give the Board additional time to solicit proxies and obtain sufficient votes in favor of approval of the Assignment Proposal or the Dissolution Proposal if there are not sufficient votes in favor of the proposal. Consequently, Axcella is seeking your approval of the Adjournment Proposal to ensure that, if necessary, Axcella will have enough time to solicit the required votes for approval of the Assignment Proposal or the Dissolution Proposal.

What are the recommendations of the Board for how I should vote my shares?

The Board unanimously recommends that you vote "FOR" the Assignment Proposal, "FOR" the Dissolution Proposal and "FOR" the Adjournment Proposal.

Who can attend the Special Meeting?

Only stockholders of record as of the close of business on the Record Date, or their duly appointed proxies, may attend the Special Meeting. To attend and participate in the Special Meeting, you will need the control number included on your proxy card. The Special Meeting will begin promptly on [•], 2023 at [•] a.m. Eastern Time. You are encouraged to arrive at the meeting prior to the start time. Check-in will begin at [•] a.m. Eastern Time and you should allow ample time for the check-in procedures. A list of stockholders entitled to vote at the Special Meeting will be available (i) ten days prior to the Special Meeting during ordinary business hours at the principal place of business of Axcella and (ii) consistent with the provisions of Axcella's Amended and Restated By-Laws or bylaws, during the Special Meeting.

Do I need an admission ticket to attend the Special Meeting?

Admission to the Special Meeting will be by proxy card control number only. If you are a stockholder of record and plan to attend the Special Meeting, you will need the control number included on your proxy card. We may ask you to present evidence of share ownership as of the Record Date, such as an account statement indicating ownership on that date, and valid identification, to enter the Special Meeting.

What do I need to do to attend the Special Meeting?

If you were a stockholder of record at the close of business on November 13, 2023, you do not need to do anything in advance to attend and/or vote your shares at the Special Meeting.

If you were a beneficial owner at the close of business on the Record Date (meaning your shares are held in "street name" through a bank, broker or other nominee), you may not vote your shares at the Special Meeting unless you obtain a "legal proxy" from your broker, bank or other nominee who is the stockholder of record with respect to your shares.

How is a quorum reached?

Our bylaws, provide that a majority of the shares entitled to vote, present in person or represented by proxy, will constitute a quorum for the transaction of business at the Special Meeting. There are [•] shares of our Common Stock outstanding and entitled to vote on the record date. Therefore, a quorum will be present if [•] shares of our Common Stock are present in person or represented by proxy at the Special Meeting. Shares present virtually during the Special Meeting will be considered shares of Common Stock represented in person at the meeting.

Under the DGCL, shares that "abstain" or are "withheld" from voting and "broker non-votes" are counted as present for purposes of determining whether a quorum is present at the Special Meeting. If a quorum is not present, the presiding officer of the meeting or the holders of voting stock representing a majority of the voting power present at the meeting may adjourn the meeting to a later time until a quorum is obtained.

What vote is needed for each of the proposals to be adopted?

Under the DGCL, the affirmative vote of a majority of the outstanding shares of outstanding stock of Axcella entitled to vote thereon is required to approve the Assignment Proposal and to approve the Dissolution Proposal. Abstentions and broker non-votes for the Assignment Proposal and Dissolution Proposal will have the same effect as votes "Against" the Assignment Proposal and the Dissolution Proposal, as applicable.

If a quorum is present at the Special Meeting, the affirmative vote of the holders of a majority of the votes properly cast is required for the approval of the Adjournment Proposal. Broker non-votes (if any) and abstentions will not be counted as votes cast on the matter and will have no effect on the outcome of the Adjournment Proposal.

What is a broker non-vote?

Generally, a broker non-vote occurs when shares held by a bank, broker or other nominee for a beneficial owner are not voted with respect to a particular proposal because (i) the nominee has not received voting instructions from the beneficial owner and (ii) the nominee lacks discretionary voting power to vote such shares. Under applicable stock exchange rules, banks, brokers and other nominees who hold shares of Axcella's Common Stock for beneficial owners have the discretion to vote on routine matters when they have not received voting instructions from those beneficial owners. On a non-routine matter, banks, brokers and other nominees do not have the discretion to direct the voting of the beneficial owners' shares (as they do on a routine matter), and, if the beneficial owner has not provided voting instructions with respect to that matter, there will be a "broker non-vote" on the matter. Axcella urges you to provide instructions to your bank, broker or other nominee so that your votes may be counted for each proposal to be voted upon. You should provide voting instructions for your shares by following the instructions provided on the voting instruction form that you receive from your bank, broker or other nominee.

It is expected that the Assignment Proposal, Dissolution Proposal, and Adjournment Proposal will be considered non-routine matters.

How can I vote?

You can have your shares voted on your behalf by submitting a valid proxy by telephone, via the Internet, or by mail. If you plan to attend the Special Meeting, you may vote your shares during the meeting. Please have your proxy card in hand when you join the meeting virtually. If you are unable to attend the Special Meeting, Axcella urges you to submit a proxy by doing one of the following:

• *Submit a proxy by telephone*: You may vote by submitting a proxy using a touch-tone telephone by calling 1-800-690-6903, 24 hours a day, seven days a week. You will be required to provide the

control number provided in the proxy card. Proxies submitted by telephone must be received no later than 11:59 p.m. Eastern Time on [•], 2023. Beneficial owners may vote using a touch-tone telephone by calling 1-800-454-8683, 24 hours a day, seven days a week.

- Submit a proxy via the Internet: You may vote by submitting a proxy at www.proxyvote.com, 24 hours a day, seven days a week, by following the instructions at that site for submitting your proxy electronically. You will be required to enter the control number provided in the proxy card. Proxies submitted through the Internet must be received no later than 11:59 p.m. Eastern Time on [•], 2023.
- *By QR Code*. You may vote by submitting a proxy using your mobile device to scan the QR code on your proxy card. Votes submitted by scanning your QR code must be received no later than 11:59 p.m. Eastern Time on [•], 2023.
- Submit a proxy by mail: You may submit a proxy to vote by completing, dating and signing the proxy card that accompanies this proxy statement and promptly mailing it in the enclosed postage-prepaid envelope and return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. You do not need to put a stamp on the enclosed envelope if you mail it in the United States. If you are mailed or otherwise receive or obtain a proxy card or voting instruction form, and you choose to vote by submitting a proxy by telephone or by internet, you do not have to return your proxy card or voting instruction form. Proxies submitted through the mail must be received no later than [•], 2023.

If the Special Meeting is adjourned or postponed, the deadlines above may be extended.

If your shares are held in "street name" through a bank, broker or other nominee, you may vote through your bank, broker or other nominee by completing and returning the voting instruction form provided by your bank, broker or other nominee, or, if such a service is provided by your bank, broker or other nominee, electronically over the Internet or by telephone. To vote over the Internet or by telephone through your bank, broker or other nominee, you should follow the instructions on the voting instruction form provided by your bank, broker or nominee.

If your shares are held in "street name," you may not vote your shares at the Special Meeting unless you obtain a "legal proxy" from your broker, bank or other nominee who is the stockholder of record with respect to your shares.

Can I change my vote?

You may revoke your proxy by (1) following the instructions on the enclosed proxy card and entering a new vote by mail that we receive before the start of the virtual Special Meeting or over the Internet by the cutoff time of 11:59 p.m. Eastern Time on [•], 2023, (2) attending and voting at the virtual Special Meeting (although attendance at the virtual Special Meeting will not in and of itself revoke a proxy), or (3) by filing an instrument in writing revoking the proxy or another duly executed proxy bearing a later date with our Corporate Secretary. Any written notice of revocation or subsequent proxy card must be received by our Corporate Secretary prior to the taking of the vote at the virtual Special Meeting. Such written notice of revocation or subsequent proxy card should be hand delivered to our Corporate Secretary or sent to our principal executive offices at Axcella Therapeutics, P.O. Box 1270, Littleton, Massachusetts 01460, Attention: Corporate Secretary.

If a broker, bank, or other nominee holds your shares, you must contact such broker, bank, or nominee in order to find out how to change your vote.

What if I vote for one, but not all, of the proposals?

Shares of Axcella's Common Stock represented by proxies received by Axcella (whether received through the return of the enclosed proxy card or received by telephone or via the Internet) where the stockholder has provided voting instructions with respect to the proposals described in this proxy statement will be voted in accordance with the voting instructions so made. If your proxy card is properly executed and returned but does not contain voting instructions as to one or more of the proposals to be voted upon at the Special Meeting, or if you give your proxy by telephone or via the Internet without indicating how you

want to vote on each of the proposals to be voted upon at the Special Meeting, your shares will be voted "FOR" the Assignment Proposal, Dissolution Proposal, and Adjournment Proposal.

Who will pay for the cost of this proxy solicitation?

Axcella is making the solicitation and will bear the costs of soliciting proxies. In addition to solicitations by mail, our directors, Chief Executive Officer, and employees, without additional remuneration, may solicit proxies by telephone, text message, facsimile, email, personal interviews, and other means. We have requested that brokerage houses, custodians, nominees, and fiduciaries forward copies of the proxy materials to the persons for whom they hold shares and request instructions for voting the proxies. We will reimburse the brokerage houses and other persons for their reasonable out-of-pocket expenses in connection with this distribution.

How can I access the proxy materials electronically?

Copies of the Notice of Special Meeting, this proxy statement and Axcella's Annual Report on Form 10-K for the year ended December 31, 2022, as well as other materials filed by Axcella with the SEC, are available without charge to stockholders on Axcella's corporate website at ir.Axcellatx.com or upon request at info@axcellatx.com.

May I still sell my shares of Common Stock?

Yes, for a limited period of time. We expect that our Common Stock will continue to be traded on the Nasdaq Global Market prior to the Special Meeting. However, the Board may direct that our stock transfer books be closed and that recording of transfers of Common Stock discontinued upon the transfer of our assets to the Assignee and the stock transfer books will be closed upon the Effective Time.

Do I have appraisal rights?

No. Under Delaware law, you do not have appraisal rights in connection with any of the proposals.

Who can help answer my questions?

If you have any additional questions about the Special Meeting, Assignment, Assignment Proposal, Dissolution, Plan of Dissolution, Dissolution Proposal or Adjournment Proposal, how to submit your proxy, or if you need additional copies of this proxy statement or the enclosed proxy card or voting instructions, please contact Axcella at info@Axcellatx.com or (857) 320-2200.

How can I know the voting results?

We plan to announce preliminary voting results at the virtual Special Meeting and will publish final results in a Current Report on Form 8-K to be filed with the SEC within four business days following the virtual Special Meeting.

Proposed Assignment for the Benefit of Creditors

Why is Axcella seeking a stockholder vote on the Assignment Proposal?

Under Section 271(a) of the DGCL, a Delaware corporation must obtain the approval of the holders of a majority of the outstanding stock of the corporation entitled to vote thereon before proceeding with a sale of all or substantially all of its property and assets. The Assignment contemplates the assignment of all or substantially all of the property and assets of Axcella. The Board therefore is seeking stockholder approval of the Assignment Proposal in order to comply with Delaware law.

Why is the Board recommending approval of the Assignment Proposal?

After due consideration of the potential strategic alternatives available to Axcella based on the costs and benefits of continuing its operations, the Board has determined that the Assignment, followed by the

Dissolution, is advisable and in the best interests of Axcella and Axcella's stockholders. Axcella is unable to continue its ongoing operations with its current cash and anticipated future cash flow and has been unable to secure sufficient equity, debt or other financing. The Board believes that the Assignment presents the best opportunity to maximizing recoveries for creditors while preserving an opportunity for future payments of any residual value to stockholders.

What will happen if the Assignment is approved?

The Board proposes that Axcella assign all or substantially all of its assets to an Assignee for the benefit of Axcella's creditors. The Assignment is a state-law governed insolvency procedure, which, if approved by Axcella's stockholders, is commenced by Axcella entering into the Assignment Agreement that effectuates the assignment, grant, conveyance, transfer, and setting over to the Assignee all of Axcella's currently existing right, title, and interest in all real or personal property and all other assets, whatsoever and where so ever situated. The Assignee will then file an application in the Delaware Court of Chancery, which commences a judicial proceeding for recognition of the assignment for the benefit of creditors. The Assignee will then liquidate the assets for the general benefit of all Axcella's creditors according to their respective priorities at law to satisfy Axcella's obligations. If any proceeds remain after all of Axcella's obligations to creditors have been satisfied in full, those remaining proceeds, if any, will be distributed to you, the stockholders. Because Axcella does not know the final amount that the Assignee will recover from a liquidation of Axcella's assets, Axcella does not know the amounts, if any, that will be available for distribution to the stockholders.

When do you expect the Assignment to be effected?

Axcella anticipates that the Assignment will be effected shortly after the date of the Special Meeting.

What will Axcella's business be after completion of the Assignment?

Upon the effectiveness of the Assignment, the Assignee will have sole control over Axcella's assets and Axcella will no longer control the liquidation or distribution of its assets or the resolution of claims. Axcella will delist from the Nasdaq Global Market and terminate its status as a reporting company with the SEC.

Will I receive anything in this transaction?

Based upon information available at this time, Axcella cannot forecast the amounts, if any, that will be available to Axcella's stockholders in connection with, or as a result of, the Assignment. Depending on the results of the Assignee's liquidation and claims resolution process, both of which will determine the extent of Axcella's debts and the amounts available to satisfy such debts, it is possible that residual value will be available for distribution to stockholders from the liquidation proceeds. However, there are too many variables and uncertainties for us to estimate whether any amounts will actually be paid or the amount of any such payments to stockholders.

Do I have appraisal rights in connection with the Assignment?

No. Under Delaware law, Axcella's stockholders are not entitled to appraisal, dissenters' or similar rights in connection with the Assignment.

Are there any risks related to the Assignment?

Yes. You should carefully review the section entitled "Risk Factors" beginning on page <u>2</u> of this proxy statement for a description of risks related to the Assignment.

Proposed Dissolution of the Company

Why is Axcella seeking a stockholder vote on the Dissolution Proposal?

Under Section 275(b) of the DGCL, a Delaware corporation must obtain the approval of the holders of a majority of the outstanding stock of the corporation entitled to vote thereon before proceeding with a

dissolution of the corporation. The Board therefore is seeking stockholder approval of the Dissolution Proposal in order to comply with Delaware law.

Why is the Board recommending approval of the Dissolution pursuant to the Plan of Dissolution?

The Board carefully reviewed and considered its options in light of the financial position of the Company, including our available cash, resources and operations following and in light of our previously announced review and pursuit of strategic alternatives. After due consideration of the options available to the Company, our Board has determined that the Assignment and subsequent Dissolution pursuant to the Plan of Dissolution, is advisable and in the best interests of the Company and our stockholders. See "Proposal 2: Approval of the Dissolution Pursuant to the Plan of Dissolution — Reasons for the Proposed Dissolution."

What does the Plan of Dissolution entail?

The Plan of Dissolution provides an outline of the steps for the Dissolution of the Company under Delaware law. The Plan of Dissolution provides that we will file the Certificate of Dissolution following stockholder approval of the Dissolution; however, the decision of whether or not to proceed with the Dissolution and when to file the Certificate of Dissolution will ultimately be made by the Board in its sole discretion.

What will happen if the Dissolution is approved?

If the Dissolution is approved by our stockholders, our Board will have sole discretion to determine if and when (at such time as they deem appropriate following stockholder approval of the Dissolution) to proceed with the Dissolution. If the Board decides to proceed with the Dissolution, we will follow the dissolution and winding-up procedures prescribed by the DGCL and Plan of Dissolution, which requires, among other things, that the Company file a Certificate of Dissolution.

If our Board determines that the Dissolution is not in our best interests or not in the best interests of our stockholders, our Board may direct that the Dissolution be abandoned, or may amend or modify the Plan of Dissolution to the extent permitted by Delaware law without the necessity of further stockholder approval. After the Certificate of Dissolution has been filed, revocation of the Dissolution would require stockholder approval under Delaware law.

Do I have appraisal rights in connection with the Dissolution?

None of Delaware law, our Amended and Restated Certificate of Incorporation, or our Amended and Restated Bylaws provides for appraisal or other similar rights for dissenting stockholders in connection with the Dissolution, and we do not intend to independently provide stockholders with any such right.

Are there any risks related to the Dissolution?

Yes. You should carefully review the section entitled "Risk Factors" beginning on page 2 of this proxy statement for a description of risks related to the Dissolution.

Will I owe any U.S. federal income taxes as a result of the Dissolution?

If the Dissolution is approved and implemented, a stockholder that is a U.S. person generally will recognize gain or loss on a share-by-share basis equal to the difference between (1) the sum of the amount of cash and the fair market value of property, if any, distributed to the stockholder with respect to each share, less any known liabilities assumed by the stockholder or to which the distributed property (if any) is subject, and (2) the stockholder's adjusted tax basis in each share of our Common Stock.

What will happen to our Common Stock if the Certificate of Dissolution is filed with the Secretary of State of Delaware?

If the Certificate of Dissolution is filed with the Secretary of State, our Common Stock (if not previously delisted and deregistered) will be delisted from the Nasdaq and deregistered under the Exchange

Act when we take action to do so. From and after the Effective Time, which we refer to as the effective time of the Certificate of Dissolution as filed with the Secretary of State of Delaware, and subject to applicable law, each holder of shares of our Common Stock shall cease to have any rights in respect of that stock, except the right to receive distributions, if any, pursuant to and in accordance with the Plan of Dissolution and the DGCL. After the Effective Time, our stock transfer records shall be closed, and we will not record or recognize any transfer of our Common Stock occurring after the Effective Time, except such transfers occurring by will, intestate succession or operation of law. Under the DGCL, no stockholder shall have any appraisal rights in connection with the Dissolution.

We expect to file the Certificate of Dissolution and for the Dissolution to become effective as soon as reasonably practicable after the Dissolution is approved by our stockholders and following the effectiveness of the Assignment; however, the decision of whether or not to proceed with the Dissolution will be made by the Board in its sole discretion.

THE SPECIAL MEETING

This proxy statement is being furnished in connection with the solicitation of proxies on behalf of the Board for use at the Special Meeting to be held on [•], 2023 at [•] a.m. Eastern Time online at www.virtualshareholdermeeting.com/AXLA2023SM.

Purpose

The Special Meeting is being held to request that stockholders consider and vote upon the Assignment Proposal, Dissolution Proposal, and Adjournment Proposal, each as described in this proxy statement.

Record Date; Stockholders Entitled to Vote

The Board has specified the close of business on November 13, 2023 as the Record Date for purpose of determining the stockholders of Axcella who are entitled to receive notice of and to vote at the Special Meeting. Only Axcella's stockholders as of the Record Date are entitled to notice of and to vote at the Special Meeting. As of the Record Date, there were [•] shares of Axcella's Common Stock issued and outstanding and entitled to notice of and to vote at the Special Meeting. Each share of Axcella's Common Stock entitles its holder to one vote on each matter that properly comes before the Special Meeting.

Quorum; Required Votes

Our bylaws provide that a majority of the shares entitled to vote, present in person or represented by proxy, will constitute a quorum for the transaction of business at the Special Meeting. There are [•] shares of our Common Stock outstanding and entitled to vote on the Record Date. Therefore, a quorum will be present if [•] shares of our Common Stock are present in person or represented by proxy at the Special Meeting. Shares present virtually during the Special Meeting will be considered shares of Common Stock represented in person at the meeting.

If a quorum is not present, the presiding officer of the meeting or the holders of voting stock representing a majority of the voting power present at the meeting may adjourn the meeting to a later time until a quorum is obtained.

The affirmative vote of a majority of the outstanding shares of outstanding stock of Axcella entitled to vote thereon is required to approve the Assignment Proposal and Dissolution Proposal. Abstentions and broker non-votes for the Assignment Proposal and Dissolution Proposal will have the same effect as votes "Against" the Assignment Proposal and Dissolution Proposal.

If a quorum is present at the Special Meeting, the Adjournment Proposal must be approved by the affirmative vote of the holders of a majority of the votes cast on the matter. Broker non-votes (if any) and abstentions will not be counted as votes cast on the matter and will have no effect on the outcome of the Adjournment Proposal.

Broker Non-Votes and Abstentions

For each proposal, you may vote "FOR," "AGAINST" or "ABSTAIN." Abstentions will count for the purpose of determining whether a quorum is present at the Special Meeting.

Generally, a "broker non-vote" occurs when shares held by a bank, broker or other nominee for a beneficial owner are not voted with respect to a particular proposal because (i) the nominee has not received voting instructions from the beneficial owner and (ii) the nominee lacks discretionary voting power to vote such shares. Under applicable stock exchange rules, banks, brokers and other nominees who hold shares of Axcella's Common Stock for beneficial owners have the discretion to vote on routine matters when they have not received voting instructions from those beneficial owners. On a non-routine matter, banks, brokers and other nominees do not have the discretion to direct the voting of the beneficial owners' shares (as they do on a routine matter), and, if the beneficial owner has not provided voting instructions with respect to that matter, there will be a "broker non-vote" on the matter. Axcella urges you to provide instructions to your bank, broker or other nominees on that your votes may be counted for each proposal to be voted

upon. You should provide voting instructions for your shares by following the instructions provided on the voting instruction form that you receive from your bank, broker or other nominee.

Broker non-votes, if any, will be counted for purposes of calculating whether a quorum is present at the Special Meeting. It is expected that the Assignment Proposal, Dissolution Proposal, and Adjournment Proposal will be considered non-routine matters. For non-routine matters, broker non-votes will have the effect of voting against that proposal. If you want to approve the Assignment and the Dissolution, you must vote FOR the Assignment Proposal and the Dissolution Proposal. If you do not instruct your broker on how to vote your shares with respect to the Assignment Proposal and the Dissolution Proposal, your broker will not be able to vote your shares with respect to the Assignment Proposal and the Dissolution Proposal, and it will have the effect of a vote against that proposal.

Recommendation of the Board

The Board has unanimously approved the Assignment and Dissolution and has determined that proceeding with the Assignment, Dissolution, and any other agreements and transactions contemplated by the Assignment and Dissolution are advisable to and in the best interests of Axcella and Axcella's stockholders. The Board unanimously recommends that Axcella's stockholders vote "FOR" the Assignment Proposal and vote "FOR" the Dissolution Proposal. For a description of the factors considered by the Board in making its determinations with respect to the Assignment Proposal, see the section of this proxy statement captioned "Reasons for the Proposed Assignment." For a description of the factors considered by the Board in making its determinations with respect to the Dissolution Proposal, see the section of this proxy statement captioned "Reasons for the Proposed Dissolution." The Board also unanimously recommends that Axcella's stockholders vote "FOR" the Adjournment Proposal.

THE BOARD UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" THE ASSIGNMENT PROPOSAL, DISSOLUTION PROPOSAL AND ADJOURNMENT PROPOSAL.

Solicitation of Proxies and Voting Procedures

Your shares may be voted at the Special Meeting only if you are present or represented by proxy. Whether or not you plan to attend the Special Meeting, you are encouraged to submit a proxy to ensure that your shares will be represented and voted. See the section of this proxy statement captioned "Questions and Answers Regarding This Solicitation and Voting at the Special Meeting — How do I vote?" for additional information

Voting by, and Revocability of, Proxies

If you submit a proxy via the Internet, by telephone or by returning a signed proxy card by mail, your shares will be voted at the Special Meeting as you indicate. If you sign your proxy card without indicating your vote, your shares will be voted "FOR" each of the Assignment Proposal, Dissolution Proposal and Adjournment Proposal. If you hold your shares through an account with a bank or a broker, you will receive instructions from your broker, bank or other nominee that you must follow in order to have your shares voted. If you fail to correctly follow the instructions you receive from your broker, bank or other nominee, your shares may not be voted. See the section of this proxy statement captioned "Broker Non-Votes and Abstentions" above for additional information.

A proxy may be revoked at any time prior to the voting at the Special Meeting by submitting a later dated proxy in accordance with the requirements outlined in this proxy statement (including a proxy authorization submitted by telephone or electronically via the Internet prior to the deadline for submitting a proxy by telephone or via the Internet), by sending a properly signed written notice of such revocation to Axcella's Corporate Secretary in advance of the Special Meeting or by attending the Special Meeting and voting by ballot. If your shares are held through a bank, broker or other nominee, you may change your voting instructions by submitting a later dated voting instruction form to your broker, bank or other nominee or fiduciary, or if you obtained a legal proxy from your broker, bank nominee or fiduciary giving you the right to vote your shares at the Special Meeting, by attending the Special Meeting and voting by ballot. You should direct any written notices of revocation and related correspondence to Axcella's Corporate Secretary at info@Axcellatx.com.

Questions and Additional Information

If you have questions about the Assignment, the Assignment Proposal, Dissolution, Dissolution Proposal, Adjournment Proposal or how to submit your proxy, or if you need additional copies of this proxy statement or the enclosed proxy card or voting instructions, please contact Axcella at info@Axcellatx.com or (857) 320-2200.

PROPOSAL 1: APPROVAL OF ASSIGNMENT

General

On November 1, 2023, the Board determined that it is advisable and in the best interests of Axcella and Axcella's stockholders to effect the assignment of all or substantially all of Axcella's assets for the benefit of Axcella's creditors through the Assignment. In furtherance of the Assignment, and pursuant to Delaware law, the Board is presenting the Assignment Proposal for approval by Axcella's stockholders.

If the Assignment is approved by Axcella's stockholders, Axcella expects to assign all of Axcella's right, title, interest in, and custody and control of Axcella's property to a third-party assignee, as the Assignee. The Assignee will then liquidate the property and distribute the proceeds to Axcella's creditors to satisfy Axcella's obligations. If any proceeds remain after all of Axcella's obligations have been satisfied, those remaining proceeds, if any, will be distributed to the stockholders. Because Axcella does not know the final amount that the Assignee will recover from a liquidation of Axcella's assets, Axcella does not know whether any amounts will be available for distribution to the stockholders. The Board will determine the Assignee.

Summary of the Proposed Assignment

Upon the effectiveness of the Assignment, the Assignee will have sole control over Axcella's assets and Axcella will no longer control the liquidation or distribution of its assets or the resolution of claims. Axcella will delist from the Nasdaq Global Market and terminate Axcella's status as a reporting company with the SEC.

Based upon information available at this time, Axcella cannot forecast whether any amounts will be available to Axcella's stockholders in connection with, or as a result of, the Assignment. There is a possibility that, assuming the Assignee can resolve all of Axcella's obligations, some amount of liquidation proceeds could be paid to stockholders. However, there are too many variables and uncertainties for us to estimate whether any amounts will actually be paid or the amount of any such potential payments.

Any distributions made to stockholders by Axcella, following the distributions made to creditors to satisfy the Company's obligations, will be made pro rata according to the stockholders' holdings of Common Stock as of the Effective Time.

Reasons for the Proposed Assignment

After seeking potential funding sources and other ways to continue operating Axcella's business, and after exploring all of its options, the Board believes that the Assignment presents the best opportunity for Axcella to satisfy its obligations to creditors and may provide an opportunity for future payments to stockholders. At this time, the Board has considered these options and, on November 1, 2023, determined that the Assignment is in Axcella's best interests and in the best interests of Axcella's stockholders.

In arriving at this determination, the Board considered such terms and alternatives, as well as the following factors:

- Axcella's financial projections and continuing negative cash flow;
- · Axcella's overall debts;
- Axcella's inability to continue to fund its existing operations with its current cash flow;
- · Axcella's inability to raise additional capital; and

· general economic conditions.

The Board also considered the following risks in arriving at its conclusion that the Assignment is in Axcella's best interests and the best interests of Axcella's stockholders:

- the uncertainty of the timing, nature and amount of any distributions to stockholders;
- the possibility that the Assignment would not yield distributions to stockholders in excess of the amount that stockholders could have received upon a sale or other transaction involving Axcella or a sale of shares on the open market; and
- the possibility that certain of Axcella's executive officers and directors may have financial interests in the Assignment that may be different from, or in addition to, the interests of Axcella's stockholders generally.

In view of the variety of factors considered in connection with its evaluation of the Assignment, the Board did not find it practical, and did not quantify or otherwise attempt, to assign relative weight to the specific factors considered in reaching its conclusions. In addition, the Board did not undertake to make any specific determination as to whether any particular factor, or any aspect of any particular factor, was favorable or unfavorable to its ultimate determination, but rather conducted an overall analysis of the factors described above. In considering the factors described above, individual members of the Board may have given different weight to different factors.

Axcella cannot offer any assurance that distributions, if any, to Axcella's stockholders following the Assignment will equal or exceed the price or prices at which shares of Common Stock recently have traded on Nasdaq Global Market or could trade over-the-counter in the future. However, the Board believes that it is in Axcella's best interests and the best interests of Axcella's stockholders to approve the Assignment.

Consequences to Stockholders

Based upon information available at this time, we cannot forecast if Axcella's stockholders will receive any cash, stock or other property in connection with, or as a result of, the Assignment. Our Common Stock will be, subject to regulatory considerations, delisted following the Assignment and we plan to take steps to terminate our status as a reporting company with the SEC following the Special Meeting. As a result, we expect that our stockholders will have no readily available means to dispose of their shares of Common Stock following the Effective Time.

Assignment Under Delaware Law

Delaware law provides that a corporation may make an assignment for the benefit of creditors upon the approval of a corporation's board of directors followed by the approval of a majority of its outstanding stock entitled to vote thereon. If such assignment is approved by the corporation's stockholders, such corporation then executes an assignment agreement, which transfers all of its right, title, interest in, and custody and control of its property to a third-party assignee. Following execution of the assignment agreement, the assignee will file an application in the Delaware Court of Chancery, which commences a judicial proceeding for recognition of the assignment for the benefit of creditors. Such assignee then liquidates the property and distributes the proceeds to such corporation's creditors according to their respective priorities at law to satisfy the corporation's obligations. If any proceeds remain after all of the corporation's obligations and costs associated with the liquidation process have been satisfied, remaining proceeds will be distributed to the corporation's stockholders.

Absence of Appraisal Rights

Under Delaware law, Axcella's stockholders are not entitled to appraisal, dissenters' or similar rights in connection with the Assignment.

Conduct of Axcella Following the Approval of the Assignment

This section of the proxy statement describes material aspects of the proposed Assignment and the steps Axcella and the Board expect to take in connection with the Assignment. While Axcella believes that

this description covers the material terms of the Assignment, this summary may not contain all of the information that is important to you. You should carefully read this entire proxy statement, including the section captioned "Summary of the Assignment."

Approval of Assignment

To proceed with the Assignment, the Assignment Proposal must be approved by the affirmative vote of a majority of the outstanding shares of stock of Axcella entitled to vote thereon. The approval of the Assignment Proposal by the requisite vote of the holders of Axcella's Common Stock will constitute complete approval and authorization for the Board, without further stockholder action, to proceed with the Assignment in accordance with any applicable provision of Delaware law.

Assignment

If the Assignment Proposal is approved by the requisite vote of Axcella's stockholders, the steps set forth below may be completed at such times as the Board, in its discretion and in accordance with Delaware law, deems necessary, appropriate or advisable in Axcella's best interests and the best interests of Axcella's stockholders:

- the cessation of all of Axcella's business activities except those relating to the Assignment; and
- the taking of any and all other actions permitted or required by Delaware law and any other
 applicable laws and regulations.

Distributions

Based upon information available at this time, Axcella cannot forecast whether any amounts will be available to Axcella's stockholders in connection with, or as a result of, the Assignment or the liquidation of the Company's assets. There is a possibility that if the Assignee is able to resolve all of Axcella's obligations, that some amount of liquidation proceeds could be paid to stockholders. However, there are too many variables and uncertainties for us to estimate whether any amounts will actually be paid or the amount of any such payments.

Regulatory Approvals

We are not aware of any U.S. federal or state regulatory requirements or governmental approvals or actions that may be required to consummate the Assignment, except for compliance with applicable SEC regulations in connection with this Proxy Statement and compliance with Delaware law. If Axcella's stockholders approve the Assignment Proposal and Axcella enters into the Assignment Agreement, the Assignee will file an application in the Delaware Court of Chancery, which commences a judicial proceeding for recognition of the assignment for the benefit of creditors. If Axcella's stockholders approve the Assignment Proposal, we intend to enter into the Assignment Agreement as soon as reasonably practicable after the Special Meeting.

Cessation of Trading of Common Stock

We anticipate that we will notify the Financial Industry Regulatory Authority (FINRA) of the Assignment and request that our Common Stock stop trading on the Nasdaq Global Market as soon after the Assignment as is reasonably practicable. We also currently expect to close our stock transfer books subsequent to the Special Meeting and to discontinue recording transfers and issuing stock certificates at the Effective Time. Accordingly, it is expected that trading in our shares of Common Stock will cease on or very soon after the Assignment.

Reporting Requirements

Whether or not the Assignment Proposal is approved, we have an obligation to continue to comply with the applicable reporting requirements of the Exchange Act, even though compliance with such reporting requirements may be economically burdensome and of minimal value to stockholders. If our stockholders approve the Assignment Proposal, in order to curtail expenses, we intend, following the Special Meeting, to

seek relief from the SEC to suspend our reporting obligations under the Exchange Act, and ultimately to terminate the registration of our Common Stock. If we are unable to suspend our obligation to file periodic reports with the SEC, we will be obligated to continue complying with the applicable reporting requirements of the Exchange Act and will be required to continue to incur the expenses associated with these reporting requirements, including legal and accounting expenses.

Accounting Treatment

If Axcella's stockholders approve the Assignment Proposal, Axcella will change its basis of accounting to the liquidation basis of accounting. Under the liquidation basis of accounting, assets are stated at their estimated net realizable values, and liabilities are stated at their estimated settlement amounts. Recorded liabilities will include the estimated expenses associated with carrying out the Assignment and Dissolution. For periodic reporting, a statement of net assets in liquidation will summarize the liquidation value per outstanding share of Common Stock. Valuations presented in the statement will represent management's estimates, based on present facts and circumstances, of the net realizable values of assets, satisfaction of liabilities, and expenses associated with carrying out the Assignment and Dissolution based upon management assumptions. The valuation of assets and liabilities will necessarily require many estimates and assumptions, and there will be substantial uncertainties in carrying out the provisions of the Assignment and Dissolution. Ultimate values realized for Axcella's assets and ultimate amounts paid to satisfy Axcella's liabilities are expected to differ from estimates recorded in annual or interim financial statements.

Interests of Certain Persons in the Assignment

Certain of Axcella's current and former executive officers and directors may have financial interests in the Assignment that may be different from, or in addition to, the interests of Axcella's stockholders generally. In particular:

- during the Assignment, Axcella will pay Craig Jalbert, the sole director and President, Treasurer and
 Corporate Secretary of Axcella, and service providers and agents, or any of them, compensation for
 services rendered in connection with continued operation of the Company's business and the
 implementation of the Assignment. Such compensation is not expected to be materially different
 from the compensation that would be paid to an outside party for similar services;
- as of October 31, 2023, Axcella's certain former directors and executive officers beneficially held 9,634 shares of Axcella's Common Stock, and 90,165 shares of Common Stock subject to outstanding stock options that are exercisable within 60 days after October 31, 2023. The estimated value of such shares of Axcella's Common Stock as of October 31, 2023 (based upon the \$5.47 per share closing price of Axcella's Common Stock as of such date) is \$52,698. Certain of Axcella's former directors and executive officers who own shares of Axcella's Common Stock will be entitled to receive, on the same terms and conditions as Axcella's other stockholders, the same distributions and other benefits that Axcella's stockholders would receive when Axcella makes any distributions to Axcella's stockholders of record; and
- Certain of Axcella's former directors and officers may be entitled to deferred compensation payments and indemnification and insurance coverage from Axcella.

The Board was aware of those potentially differing interests and considered them, among other matters, in evaluating the Assignment and in reaching its decision to approve such plan and the actions contemplated thereby, as more fully discussed in the section of this proxy statement captioned "Reasons for the Proposed Assignment."

In connection with the Assignment and the Dissolution, the Board appointed a sole director, Mr. Craig Jalbert, and all other directors resigned. Mr. Jalbert was also appointed President, Treasurer and Corporate Secretary of Axcella.

Equity Compensation Plan Information

The following table provides information as of October 31, 2023 with respect to shares of Axcella's Common Stock that may be issued under its existing equity compensation plans.

Equity		Compensation Plan Information	
N. G.	Number of securities to be issued upon exercise of outstanding options, warrants	Weighted average exercise price of outstanding options, warrants	Number of securities remaining available for future issuance under equity compensation plan (excluding securities in
Plan Category	and rights	and rights	first column)
Equity compensation plans approved by security holders ⁽¹⁾	205,694 ⁽²⁾	\$ 119.55	305,222 ⁽³⁾⁽⁴⁾
Equity compensation plans not approved by security holders			
Total	205,694	\$ 119.55	305,222

- (1) Includes the Axcella Health Inc. Amended and Restated 2010 Stock Incentive Plan (the "2010 Plan"), the 2019 Plan and the Axcella Health Inc. 2019 Employee Stock Purchase Plan (the "2019 Employee Stock Purchase Plan").
- (2) Includes 204,560 of Common Stock issuable upon the exercise of outstanding stock options and 1,134 shares of Common Stock issuable upon settlement of restricted stock units.
- (3) As of October 31, 2023, there were 267,814 shares available for grant under the 2019 Plan and 37,407 shares available for grant under the 2019 Employee Stock Purchase Plan. As of the closing of our initial public offering, no additional equity awards may be granted under the 2010 Plan. The shares of Common Stock underlying any awards granted under the 2010 Plan or 2019 Plan that are forfeited, canceled, reacquired by us prior to vesting, satisfied without the issuance of stock, or otherwise terminated (other than by exercise) and the shares of Common Stock that are withheld upon exercise of a stock option or settlement of such award to cover the exercise price or tax withholding will be added to the shares of Common Stock available for issuance under the 2019 Plan.
- (4) The 2019 Plan provides that an additional number of shares will automatically be added to the shares authorized for issuance under the 2019 Plan on January 1 of each year. The number of shares added each year will be equal to the lesser of: (i) 4% of the outstanding shares on the immediately preceding December 31 or (ii) such amount as determined by the compensation committee of our board of directors. The 2019 Employee Stock Purchase Plan provides that an additional number of shares will automatically be added to the shares authorized for issuance under the 2019 Employee Stock Purchase Plan on January 1 of each year through January 1, 2029. The number of shares added each year will be equal to the least of: (i) 1% of the outstanding shares on the immediately preceding December 31, (ii) 237,181 shares or (iii) such amount as determined by the compensation committee of our board of directors.

Indemnification and Insurance

In connection with the Assignment, Axcella will continue to indemnify its current and former directors and officers to the maximum extent permitted in accordance with applicable law, Axcella's Amended and Restated Certificate of Incorporation and Amended and Restated By-laws, and any contractual arrangements, for actions taken in connection with the Assignment. The Board is authorized to obtain and maintain insurance as may be necessary, appropriate or advisable to satisfy such indemnification obligations, including seeking an extension in time and coverage of Axcella's insurance policies currently in officer.

Other than as set forth above, it is not currently anticipated that the Assignment will result in any material benefit to any of Axcella's executive officers or to directors who participated in the vote to adopt the Assignment.

Certain Material U.S. Federal Income Tax Consequences

The following is a summary of certain material United States federal income tax consequences of the Assignment that are applicable to stockholders. This discussion is included for general information purposes

only and is not intended to be, and is not, legal or tax advice to any particular stockholder. This summary is based on the current provisions of the Internal Revenue Code of 1986, as amended (the "Code"), and other legal authorities, all of which are subject to change, possibly with retroactive effect. No rulings from the Internal Revenue Service (the "IRS") or opinions of counsel have been or will be requested concerning the matters discussed below. The tax consequences set forth in the following discussion are not binding on the IRS or the courts, and no assurance can be given that contrary positions will not be successfully asserted by the IRS or adopted by a court.

This discussion does not describe all of the U.S. federal tax consequences that may be relevant to you in light of your particular circumstances, such as consequences arising under the federal estate and gift tax, the alternative minimum tax or the Medicare tax on net investment income or the consequences to you if you are an accrual-method taxpayer that is required to conform the timing of recognition of items of income to an "applicable financial statement" under Section 451(b) of the Code, or differing tax consequences applicable to you if you are a beneficial owner of Common Stock ("stockholder") subject to special rules. Such special rules and circumstances include stockholders who are dealers in securities, financial institutions, insurance companies, entities classified as partnerships for income tax purposes, tax-exempt organizations, foreign persons, stockholders who acquired their Common Stock through stock option or stock purchase programs or in other compensatory transactions, stockholders who are subject to alternative minimum tax, stockholders who hold their Common Stock as part of an integrated investment, including a straddle, comprising shares of Common Stock and one or more other positions, or stockholders who have entered into a constructive sale of Common Stock under the Code.

For the avoidance of doubt, this summary applies to you only if you are a U.S. Holder. You are a U.S. Holder if, for U.S. federal income tax purposes, you are a stockholder that is:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized in or under the laws of the United States, any state thereof or the District of Columbia; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

EACH STOCKHOLDER SHOULD CONSULT THE STOCKHOLDER'S OWN TAX ADVISOR TO DETERMINE THE STOCKHOLDER'S PARTICULAR U.S. FEDERAL INCOME TAX CONSEQUENCES AND OTHER TAX CONSEQUENCES TO THE STOCKHOLDER OF THE ASSIGNMENT, INCLUDING ANY STATE, LOCAL AND FOREIGN TAX LAWS AND THE EFFECT OF ANY CHANGES IN SUCH LAWS

Worthless Stock. Under U.S. federal income tax law, if stock becomes worthless, the resulting loss is treated as a loss from the sale or exchange of a capital asset on the last day of the tax year during which the stock first becomes worthless. Stock is generally treated as worthless if there is no current liquidating value, no reasonable hope and expectation that the stock will become valuable at some future time and there is an identifiable event establishing the worthlessness of the stock.

Upon completion of the Assignment, Axcella's shares will be delisted from trading on the Nasdaq Global Market. If the stockholders do not receive any liquidating distributions, it is likely that the Assignment will be the identifiable event that establishes the worthlessness of the stock of Axcella, and that each stockholder should recognize a capital loss equal to the stockholder's adjusted tax basis in the stockholder's shares. For purposes of determining a stockholder's holding period in Axcella's stock, and whether the capital loss is a long-term or a short-term capital loss, a stockholder's holding period should be determined as if the stock were sold on the last day of the stockholder's taxable year (December 31 for individual stockholders).

Potential Subsequent Liquidation. If there is a subsequent liquidating distribution in the same tax year as the Assignment, amounts received by stockholders in complete liquidation of Axcella should be treated as payments made in exchange for their Common Stock. In general, each Axcella stockholder should recognize capital gain or loss equal to the difference between the amount of consideration received by such Axcella stockholder and the Axcella stockholder's adjusted tax basis in the shares of Axcella stock surrendered.

If a liquidating distribution is received in a year subsequent to the Assignment and if a stockholder has treated the Assignment and other events as establishing worthlessness, then the stockholder should consider filing an amended return to undo the effect of the worthless stock loss and report a gain or loss solely with respect to the subsequent year's liquidating distribution.

Gain or loss should be determined separately for each block of shares, with a "block" consisting of shares acquired at the same cost in a single transaction. That gain or loss will be long-term capital gain or loss, provided the shares are held for investment and the stockholder's holding period for such shares is more than one year. For non-corporate Axcella stockholders, long-term capital gains are generally subject to a maximum federal income tax rate of 20% and short-term capital gains are subject to tax at ordinary income tax rates. Capital losses not offset by capital gains may be deducted against a non-corporate stockholder's ordinary income only up to a maximum annual amount of \$3,000. A non-corporate stockholder may not carry back capital losses, but such losses may be carried forward to subsequent tax years. All net capital gains for a corporate stockholder are subject to tax at regular corporate tax rates. Although a corporate stockholder can generally deduct capital losses only to the extent of capital gains, any unused capital losses of a corporate stockholder may generally be carried forward.

Backup Withholding if there are Liquidating Distributions. Federal income tax laws require that, to avoid backup withholding with respect to "reportable payments" (currently at a rate of 24%), each Company stockholder must (a) provide Axcella with such stockholder's correct taxpayer identification number ("TIN") on Form W-9 and certify as to no loss of exemption from backup withholding, or (b) establish a basis for exemption from backup withholding on an appropriate Form W-8 (including a Form W-8BEN, W-8ECI, W-8EXP and W-8IMY) or Form W-9, as applicable. Exempt stockholders (including, among others, all corporations and certain foreign individuals) are not subject to backup withholding and reporting requirements. Backup withholding is not an additional tax. The amount of any backup withholding from a payment to you will be allowed as a credit against your U.S. federal income tax liability, if any, and may entitle you to a refund, provided that the required information is timely furnished to the IRS. Reportable payments, if any, made to stockholders pursuant to a liquidation of Axcella will be reported by Axcella to the IRS to the extent required by law.

Votes Required

The affirmative vote of a majority of the shares of our Common Stock outstanding on the Record Date and entitled to vote on the Assignment Proposal is required to approve the Assignment Proposal. Abstentions, broker non-votes, and failures to vote will have the same effect as a vote "AGAINST" the Assignment Proposal.

Recommendation of the Board

On November 1, 2023, the Board determined that the Assignment and the other transactions contemplated thereby are advisable and in the best interests of Axcella and its stockholders, approved submitting the Assignment Proposal to the Company's stockholders and recommended the approval thereof.

The Board Unanimously recommends that you vote "FOR" the Assignment Proposal.

PROPOSAL 2—APPROVAL OF THE DISSOLUTION PURSUANT TO THE PLAN OF DISSOLUTION

Our Board has (i) determined that, following the Assignment (assuming approval of the Assignment Proposal), the Dissolution is advisable and in the best interests of the Company and our stockholders, (ii) approved the Dissolution and (iii) adopted the Plan of Dissolution. The reasons for the Dissolution are described under "Proposal 2 — Approval of the Dissolution Pursuant to the Plan of Dissolution — Background of the Proposed Dissolution" beginning on page 24 of this proxy statement. The Dissolution requires approval by the holders of a majority of our outstanding Common Stock entitled to vote at the Special Meeting that is the subject of this proxy statement. Our Board unanimously recommends that our stockholders authorize the Dissolution.

In general terms, when we dissolve, we will cease conducting our business, wind up our affairs, dispose of any remaining non-cash assets, pay or otherwise provide for our obligations, and distribute our remaining assets, if any, during a post-dissolution period of at least three years, as required by the DGCL. With respect to the Dissolution, we will follow the liquidation, dissolution and winding-up procedures prescribed by the DGCL and our Plan of Dissolution, as described in further detail under "Proposal 2 — Approval of the Dissolution Pursuant to the Plan of Dissolution — Delaware Law Applicable to Our Dissolution" beginning on page 37 of this proxy statement. You should carefully consider the risk factors relating to our complete liquidation and dissolution as described under "Risk Factors — Risks Related to The Assignment and Dissolution" beginning on page 2 of this proxy statement.

Subject to the requirements of the DGCL and our Plan of Dissolution, and subject to the Assignment process (assuming approval of the Assignment Proposal) described in this proxy statement, we or the Assignee, as applicable, will use our existing cash to pay for our winding up procedures, including:

- income and other taxes;
- the costs associated with our Dissolution and winding up over the Survival Period; these costs may include, among others, expenses necessary to the implementation and administration of our Plan of Dissolution and fees and other amounts payable to professional advisors (including legal counsel, financial advisors and others) and to consultants and others assisting us with our Dissolution;
- · any claims by others against us that we do not reject as part of the dissolution process;
- any amounts owed by us under contracts with third parties;
- the funding of any reserves or other security we are required to establish, or deem appropriate to
 establish, to pay for asserted claims (including lawsuits) and possible future claims, as further
 described below; and
- solely to the extent remaining after provision for the above-described payments, liquidating
 distributions to be made to our stockholders, which distributions may be made from time to time as
 available and in accordance with the procedures required by the DGCL as described below.

Estimated Distributions to Stockholders

Based upon information available at this time, Axcella cannot forecast whether any amounts will be available to Axcella's stockholders in connection with, or as a result of, the Assignment and/or Dissolution. There is a possibility that, assuming the Assignee can resolve all of Axcella's obligations, some amount of liquidation proceeds could be paid to stockholders. However, there are too many variables and uncertainties for us to estimate whether any amounts will actually be paid or the amount of any such payments.

Subject to the Assignment process, any distributions made to stockholders by Axcella following the distributions made to creditors to satisfy Axcella's obligations, will be made to stockholders pro rata according to the stockholders' holdings of Common Stock as of the Effective Time.

We cannot predict the timing or amount of any distributions, as uncertainties as to the ultimate amount of our liabilities, the operating costs and amounts to be set aside for claims, obligations and provisions during the liquidation and winding-up process, and the related timing to complete such transactions make it impossible to predict with certainty the actual net cash amount that will ultimately be

available for distribution to stockholders or the timing of any such distributions. Therefore, we are unable to estimate when we, or the Assignee, as applicable, would be able to make any distributions to our stockholders. See the section entitled "Risk Factors — Risks Related to The Assignment and Dissolution" beginning on page 2 of this proxy statement.

The description of the Dissolution contained in this introductory section is general in nature and is subject to various other factors and requirements, as described in greater detail below.

Background of the Proposed Dissolution

In the ordinary course from time to time, our Board and management team have evaluated and considered a variety of financial and strategic opportunities for the Company as part of our long-term strategy to enhance value for our stockholders, including potential acquisitions, divestitures, business combinations and other transactions.

As part of the ongoing consideration and evaluation of our long-term prospects and strategies, our Board frequently reviews, with our management, strategic and financial alternatives in light of developments in our business, the competitive landscape, the economy generally and financial markets, all with the goal of enhancing value for our stockholders and making a positive impact in patients' lives. As part of this process, from time to time, our management has engaged in business development and/or strategic discussions with industry participants. This includes contacts with numerous companies regarding potential global and regional partnerships, as well as a number of discussions with companies about strategic transactions.

Historically, we were a clinical-stage biotechnology company focused on pioneering a new approach to treat complex diseases using compositions of endogenous metabolic modulators, or EMMs. Our product candidates are comprised of multiple EMMs that are engineered in distinct combinations and ratios with the goal of simultaneously impacting multiple biological pathways. Our pipeline includes lead therapeutic candidates for the treatment of Long COVID (also known as Post COVID-19 Condition and Post-Acute Sequelae of COVID-19, or "PASC") associated fatigue, and the treatment of non-alcoholic steatohepatitis, or NASH.

On December 12, 2022, the Board of Directors approved a reprioritization of the Company's programs and a restructuring of operations to support its streamlined set of priorities. As part of this restructuring, the Board approved a reduction in force of approximately 85% of the Company's workforce. Since the reorganization, the Company has taken several actions including terminating its EMMPACT Phase 2b clinical trial of AXA1125 for the treatment of NASH to focus on AXA1125 for the treatment of Long COVID associated fatigue, and executing a plan to vacate its facility and to sell its non-leased laboratory equipment.

After seeking potential funding sources and other ways to continue to operate Axcella's business, Axcella has been unable to find a viable alternative to the Assignment. The Board believes that the Assignment presents the best opportunity for the best recovery for creditors and also may provide an opportunity for future payments to stockholders.

In light of this, our Board determined that approving the Plan of Dissolution gives our Board the most flexibility in optimizing value for our stockholders and as a result, on November 1, 2023, our Board adopted resolutions approving the Plan of Dissolution and the Dissolution and recommending that our stockholders approve the Plan of Dissolution and the Dissolution.

Reasons for the Proposed Dissolution

The Board believes that the Dissolution is in Axcella's best interests and the best interests of our stockholders. The Board considered and pursued at length potential strategic alternatives available to Axcella such as a merger, asset sale, strategic partnership or other business combination transaction, and, following the results of such review, now believe that pursuing a wind-up of the Company in accordance with the Plan of Dissolution gives our Board the most flexibility in optimizing value for our stockholders.

In making its determination to approve the Dissolution, the Board considered, in addition to other pertinent factors, the fact that Axcella currently has no significant remaining business operations or business

prospects; the fact that Axcella will continue to incur substantial accounting, legal and other expenses associated with being a public company despite having no source of revenue or financing alternatives; and the fact that Axcella has conducted an evaluation to identify remaining strategic alternatives involving Axcella's assets or Axcella as a whole, such as a merger, asset sale, strategic partnership or other business combination transaction, that would have a reasonable likelihood of providing value to our stockholders in excess of the amount the stockholders would receive in a liquidation. As a result of its evaluation, the Board concluded that the Dissolution is the preferred strategy among the alternatives now available to Axcella and is in the best interests of Axcella and its stockholders. Accordingly, the Board approved the Dissolution of Axcella pursuant to the Plan of Dissolution and recommends that our stockholders approve the Dissolution Proposal.

Delaware Law Applicable to our Dissolution

We are a corporation organized under the laws of the State of Delaware and the Dissolution will be governed by the DGCL. The following is a brief summary of some of the DGCL provisions applicable to the Dissolution. The following summary is qualified in its entirely by Sections 275 through 283 of the DGCL, which are attached to this proxy statement as Annex A.

Delaware Law Generally

Authorization of Board and Stockholders. If a corporation's board of directors deems it advisable that the corporation should dissolve, it may adopt a resolution to that effect by a majority vote of the whole board and notify the corporation's stockholders entitled to vote on the dissolution of the adoption of the resolution and the calling of a meeting of stockholders to act on the resolution. Our Board has unanimously adopted a resolution approving the Dissolution and the Plan of Dissolution and declaring them advisable and recommending them to our stockholders. The Dissolution must be authorized and approved by the holders of a majority of our outstanding Common Stock on the Record Date entitled to vote on the Dissolution Proposal.

Certificate of Dissolution. If a corporation's stockholders authorize its dissolution, to consummate the dissolution the corporation must file a certificate of dissolution with the Secretary of State. If our stockholders authorize the Dissolution at the Special Meeting, we intend to file the Certificate of Dissolution with the Secretary of State as soon as practicable after the receipt of such approval. However, the timing of such filing is subject to the discretion of the Board.

Possible Permitted Abandonment of Dissolution. The resolution authorizing a dissolution adopted by a corporation's board of directors may provide that, notwithstanding authorization of the dissolution by the corporation's stockholders, the board of directors may abandon the dissolution without further action by the stockholders. While we do not currently foresee any reason that our Board would abandon our proposed Dissolution once it is authorized by our stockholders, to provide our Board with the maximum flexibility to act in the best interests of our stockholders, the resolutions adopted by our Board included language providing the Board with the flexibility to abandon the Dissolution without further action of our stockholders at any time prior to the filing of the Certificate of Dissolution.

Time of Dissolution. When a corporation's certificate of dissolution is filed with the Secretary of State and has become effective, along with the corporation's tender of all taxes (including Delaware franchise taxes) and fees authorized to be collected by the Secretary of State, the corporation will be dissolved. We refer to the effective time of the Certificate of Dissolution herein as the "Effective Time."

Continuation of Corporation After Dissolution

A dissolved corporation continues its existence for three years after dissolution, or such longer period as the Delaware Court of Chancery may direct, for the purpose of prosecuting and defending suits and enabling the corporation to settle and close its business, to dispose of and convey its property, to discharge its liabilities and to distribute to its stockholders any remaining assets. A dissolved corporation may not, however, continue the business for which it was organized. Any action, suit or proceeding begun by or against the corporation before or during the Survival Period (as defined below) does not abate by reason of the dissolution, and for the purpose of any such action, suit or proceeding, the corporation will continue beyond the Survival Period until any related judgments, orders or decrees are fully executed, without the

necessity for any special direction by the Delaware Court of Chancery. Our Plan of Dissolution will govern our winding up process after Dissolution. See the section entitled "Proposal 2 — Approval of the Dissolution Pursuant to the Plan of Dissolution — Our Plan of Dissolution" beginning on page 28 of this proxy statement.

Payment and Distribution to Claimants and Stockholders

A dissolved corporation must make provision for the payment (or reservation of funds as security for payment) of claims against the corporation in accordance with the applicable provisions of the DGCL and the distribution of remaining assets to the corporation's stockholders. The dissolved corporation may do this by following one of two procedures, as described below.

Safe Harbor Procedures under DGCL Sections 280 and 281(a)(the "Safe Harbor Procedures")

A dissolved corporation may elect to give notice of its dissolution to persons having a claim against the corporation (other than claims against the corporation in any pending actions, suits or proceedings to which the corporation is a party) ("Current Claimants") and to persons with contractual claims contingent on the occurrence or nonoccurrence of future events or otherwise conditional or unmatured ("Contingent Contractual Claimants"), and after giving these notices, following the procedures set forth in the DGCL, as described below.

The Plan of Dissolution provides the Board with the discretion to elect to follow the Safe Harbor Procedures rather than the Alternative Procedures (as defined below).

Current Claimants

Notices and Publication. The notice to Current Claimants must state (1) that all such claims must be presented to the corporation in writing and must contain sufficient information that will reasonably inform the corporation of the identity of the claimant and the substance of the claim; (2) the mailing address to which the claim must be sent; (3) the date (the "Claim Date") by which the claim must be received by the corporation, which must be no earlier than 60 days from the date of the corporation's notice; (4) that the claim will be barred if not received by the Claim Date; (5) that the corporation may make distributions to other claimants and the corporation's stockholders without further notice to the Current Claimant; and (6) the aggregate annual amount of all distributions made by the corporation to its stockholders for each of the three years before the date of dissolution. The notice must be published at least once a week for two consecutive weeks in a newspaper of general circulation in the county in which the corporation's registered agent in Delaware is located and in the corporation's principal place of business and, in the case of a corporation having \$10 million or more in total assets at the time of dissolution, at least once in all editions of a daily newspaper with a national circulation. On or before the date of the first publication of the notice, the corporation must also mail a copy of the notice by certified or registered mail, return receipt requested, to each known claimant of the corporation, including persons with claims asserted against the corporation in a pending action, suit or proceeding to which the corporation is a party.

Effect of Non-Responses to Notices. If the dissolved corporation does not receive a response to the corporation's notice by the Claim Date from a Current Claimant who was given actual notice according to the foregoing paragraph, then the claimant's claim will be barred.

Treatment of Responses to Notices. If the dissolved corporation receives a response to the corporation's notice by the Claim Date, the dissolved corporation may accept or reject, in whole or in part, the claim. If the dissolved corporation rejects a claim, it must mail a notice of the rejection to the Current Claimant by certified or registered mail, return receipt requested, within 90 days after receipt of the claim (or, if earlier, at least 150 days before the expiration of the Survival Period). The notice must state that any claim so rejected will be barred if the Current Claimant does not commence an action, suit or proceeding with respect to the claim within 120 days of the date of the rejection.

Effect of Non-Responses to Rejections of Claims. If the dissolved corporation rejects a claim and the Current Claimant does not commence an action suit or proceeding with respect to the claim within the 120-day post-rejection period, then the Current Claimant's claim will be barred.

Contingent Contractual Claims

Notices. The notice to Contingent Contractual Claimants (persons with contractual claims contingent on the occurrence or nonoccurrence of future events or otherwise conditional or unmatured) must be in substantially the same form and sent and published in the same manner, as notices to Current Claimants and shall request that Contingent Contractual Claimants present their claims in accordance with the terms of such notice.

Responses to Contractual Claimants. If the dissolved corporation receives a response by the date specified in the notice by which the claims from Contingent Contractual Claimants must be received by the corporation, which must be no earlier than 60 days from the date of the corporation's notice to Contingent Contractual Claimants, the dissolved corporation must offer to the Contingent Contractual Claimant such security as the dissolved corporation determines is sufficient to provide compensation to the claimant if the claim matures. This offer must be mailed to the Contingent Contractual Claimant by certified or registered mail, return receipt requested, within 90 days of the dissolved corporation's receipt of the claim (or, if earlier, at least 150 days before the expiration of the post- dissolution survival period). If the Contingent Contractual Claimant does not deliver to the dissolved corporation a written notice rejecting the offer within 120 days after receipt of the offer for security, the claimant is deemed to have accepted the security as the sole source from which to satisfy the claim against the dissolved corporation.

Determinations by Delaware Court of Chancery

A dissolved corporation that has complied with the Safe Harbor Procedures must petition the Delaware Court of Chancery to determine the amount and form of security that will be (1) reasonably likely to be sufficient to provide compensation for any claim against the dissolved corporation that is the subject of a pending action, suit or proceeding to which the dissolved corporation is a party, other than a claim barred pursuant to the Safe Harbor Procedures, (2) sufficient to provide compensation to any Contingent Contractual Claimant who has rejected the dissolved corporation's offer for security for such person's claims made pursuant to the Safe Harbor Procedures, and (3) reasonably likely to be sufficient to provide compensation for claims that have not been made known to the dissolved corporation or that have not arisen but that, based on facts known to the dissolved corporation, are likely to arise or to become known to the dissolved corporation within five years after the date of dissolution or such longer period of time as the Delaware Court of Chancery may determine, not to exceed ten years after the date of dissolution.

Payments and Distributions

If a dissolved corporation has followed the Safe Harbor Procedures, then it will (1) pay the current claims made but not rejected, (2) post the security offered and not rejected for contractual claims that are contingent, conditional or unmatured, (3) post any security ordered by the Delaware Court of Chancery in response to the dissolved corporation's petition to the court described above, and (4) pay or make provision for all other claims that are mature, known and uncontested or that have been finally determined to be owing by the dissolved corporation. If there are insufficient assets to make these payments and provisions, then they will be satisfied ratably in accordance with legal priorities, to the extent that assets are available.

All remaining assets will be distributed to the dissolved corporation's stockholders, but not earlier than 150 days after the date of the last notice of rejection given by the dissolved corporation to a Current Claimant pursuant to the Safe Harbor Procedures.

Alternative Procedures under DGCL Section 281(b) (the "Alternative Procedures")

If a dissolved corporation does not elect to follow the Safe Harbor Procedures, it must adopt a plan of distribution pursuant to which it will (1) pay or make reasonable provision to pay all claims and obligations, including all contingent, conditional or unmatured contractual claims known to the corporation, (2) make such provision as will be reasonably likely to be sufficient to provide compensation for any claim against the dissolved corporation that is the subject of a pending action, suit or proceeding to which the dissolved corporation is a party and (3) make such provision as will be reasonably likely to be sufficient to provide compensation for claims that have not been made known to the dissolved corporation or that have not arisen but that, based on facts known to the dissolved corporation, are likely to arise or to become known to the

dissolved corporation within ten years after the date of dissolution. If there are insufficient assets to make these payments and provisions, then they will be satisfied ratably in accordance with legal priorities, to the extent assets are available. All remaining assets will be distributed to the dissolved corporation's stockholders.

The Plan of Dissolution adopted by the Board and proposed to the stockholders for approval constitutes the plan of distribution for purposes of the Alternative Procedures. The Board currently anticipates dissolving Axcella in accordance with the Alternative Procedures, but retains the discretion to elect to follow the Safe Harbor Procedures.

Liabilities of Stockholders and Directors

If a dissolved corporation follows either the Safe Harbor Procedures or the Alternative Procedures, then (1) a stockholder of the dissolved corporation's will not be liable for any claim against the dissolved corporation in an amount in excess of the lesser of (a) the stockholder's pro rata share of the claim and (b) the amount distributed to the stockholder. If a dissolved corporation follows the Safe Harbor Procedures, then a stockholder of the dissolved corporation will not be liable for any claim against the dissolved corporation pursuant to any action, suit or proceeding that is not begun before the expiration of the Survival Period. In no event will the aggregate liability of a stockholder of a dissolved corporation for claims against the dissolved corporation exceed the amount distributed to the stockholder in dissolution. If a dissolved corporation fully complies with either the Safe Harbor Procedures or the Alternative Procedures, then the dissolved corporation's directors will not be personally liable to the dissolved corporation's claimants.

Application of These Procedures to Us

We currently plan to elect to follow the Alternative Procedures. However, our Plan of Dissolution specifically provides our Board with the discretion to decide to instead follow the Safe Harbor Procedures. For more information about our liquidation, winding up and distribution procedures, see the section entitled "Proposal 2 — Approval of the Dissolution Pursuant to the Plan of Dissolution — Our Plan of Dissolution" beginning on page 28 of this proxy statement.

Our Plan of Dissolution

The Dissolution will be conducted in accordance with the Plan of Dissolution, which is attached to this proxy statement as Exhibit B and incorporated by reference into this proxy statement. The following is a summary of our Plan of Dissolution and does not purport to be complete or contain all of the information that is important to you. To understand our Plan of Dissolution more fully, you are urged to read this proxy statement as well as the Plan of Dissolution. Our Plan of Dissolution may be modified, clarified or amended by action of our Board at any time and from time to time, as further described below.

Authorization and Effectiveness

Our Plan of Dissolution will be deemed approved if the holders of a majority of the outstanding stock entitled to vote on the Dissolution Proposal approve the Dissolution Proposal and will constitute our authorized plan of distribution pursuant to Section 280(b) of the DGCL and will evidence our authority to take all actions described in the Plan of Dissolution. Following the authorization of the Dissolution by our stockholders, at such time as our Board determines to be appropriate, we will file the Certificate of Dissolution with the Secretary of State and ensure that all relevant taxes (including Delaware franchise taxes) and fees are paid. The Effective Time of our Dissolution will be when the Certificate of Dissolution is filed with the office of the Secretary of State or such later date and time that is stated in the Certificate of Dissolution.

Survival Period

For three years after the Effective Time (or such longer period as the Delaware Court of Chancery may direct) (the "Survival Period"), we will continue as a body corporate for the purpose of prosecuting and defending lawsuits (civil, criminal or administrative) by or against us; settling and closing our business; disposing of and conveying our property; discharging our liabilities in accordance with the DGCL; and

distributing our remaining assets to our stockholders. We will no longer engage in the development of treatments for cancer and autoimmune diseases, except to the extent necessary to preserve the value of our assets and wind up our business affairs in accordance with our Plan of Dissolution. We anticipate that distributions, if any, to our stockholders will be made in cash, and may be made at any time, from time to time, in accordance with the DGCL.

General Liquidation, Winding Up and Distribution Process

We intend to elect to follow the Alternative Procedures described under the section entitled "Proposal 2 — Approval of the Dissolution Pursuant to the Plan of Dissolution — Delaware Law Applicable to Our Dissolution — *Alternative Procedures under DGCL Section 281(b)*" beginning on page <u>27</u> of this proxy statement but our Board retains the discretion to opt to dissolve the Company in accordance with the Safe Harbor Procedures.

Continuing Employees and Consultants

During the Survival Period, we may retain, hire, employ or contract with employees, consultants, agents, trustees, independent professional advisors (including legal counsel, accountants and financial advisors) and others, as the Board may determine, from time to time, to be necessary or advisable to effect the Dissolution as described in our Plan of Dissolution. The Board expects that during the Dissolution, the Company will continue to retain Verdolino & Lowey, P.C. to help with the winding-up activities and administering the Dissolution. The Board also expects that outside legal and financial advisors will continue to advise on and assist with the Dissolution.

After filing the Certificate of Dissolution, the Board expects it will maintain the size of the Board at three or fewer Board seats to save costs.

We may, in the absolute discretion of the Board, pay the Company's directors, any employees it may hire, consultants, agents and other representatives, compensation or additional compensation above their regular compensation, including pursuant to severance and retention agreements, in money or other property, in recognition of the extraordinary efforts they will be required to undertake in connection with the implementation of the Plan of Dissolution; however, given the Company's already streamlined operations, the Board does not expect to need to hire any employees or otherwise expand the team of advisors and consultants currently in place.

Sale of Our Remaining Assets

We have a broad portfolio of patent applications, know how, trade secrets, and other intellectual property that covers our platform technologies as well as our product discoveries. We believe the breadth and depth of our intellectual property is a strategic asset that has the potential to provide a significant competitive advantage over other cell therapy companies. As explained in this proxy statement, assuming approval of the Assignment Proposal, all or substantially all of our assets will be assigned to an Assignee who will liquidate such assets for the benefit of our creditors. See the section entitled "Proposal 1: Approval of Assignment" beginning on page 16 of this proxy statement. However, the Plan of Dissolution also contemplates the sale of all of our remaining assets, if any, if and at such time as the Board may approve, without further stockholder approval. The Plan of Dissolution does not specify the manner in which we may sell our assets. Such sales could take the form of sales of individual assets, sales of groups of assets organized by type of asset or otherwise, a single sale of all or substantially all of our assets, or some other form of sale. The assets may be sold to one or more purchasers in one or more transactions over a period of time. It is not anticipated that any further stockholder votes will be solicited with respect to the approval of the specific terms of any particular sales of assets approved by the Board. We do not anticipate amending or supplementing this proxy statement to reflect any such agreement or sale, unless required by applicable law, or selling any additional assets in the future. See the section entitled "Risk Factors — Risks Related to the Assignment and Dissolution" beginning on page 2 of this proxy statement.

Costs and Expenses

We, or the Assignee (assuming approval of the Assignment Proposal), will pay all costs and expenses that the Board may determine from time to time to be necessary or advisable to effect the Dissolution in

accordance with the Plan of Dissolution and as may be necessary or advisable to continue our existence and operations. These costs and expenses may include, without limitation, brokerage, agency, professional, consulting and other fees and expenses of persons rendering services to the Company in connection with the matters described in the Plan of Dissolution and costs incurred to comply with contracts to which the Company is a party.

Indemnification

We will continue to indemnify our current and former officers, directors, employees and agents in accordance with, and to the extent required or permitted by, the DGCL, our Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and any contractual arrangements, whether these arrangements existed before the Dissolution or were entered into after the Dissolution. During the Survival Period, acts and omissions of any indemnified or insured person in connection with the implementation of the Plan of Dissolution will be covered to the same extent that they were covered before the effective time of the Dissolution. The Board is authorized to obtain and maintain insurance as may be necessary to cover the Company's indemnification obligations, including seeking an extension in time and coverage of our insurance policies currently in effect.

Stockholder Consent

Authorization of the Dissolution by the holders of a majority of the outstanding stock of the Company entitled to vote thereon shall, to the fullest extent permitted by law, constitute approval of all matters described in this proxy statement relating to the Dissolution, including our Plan of Dissolution.

Authorization of the Dissolution by the holders of a majority of the outstanding stock of the Company shall constitute the authorization of the sale, exchange or other disposition in liquidation of all of the remaining property and assets (if any) of the Company after the effective time of the Dissolution, whether the sale, exchange or other disposition occurs in one transaction or a series of transactions, and shall constitute ratification of any and all contracts for sale, exchange or other disposition that are conditioned on stockholder approval. However, as explained in this proxy statement, assuming approval of the Assignment Proposal, all or substantially all of the our assets will be assigned to an Assignee who will liquidate such assets for the benefit of our creditors. See the section entitled "Proposal 1: Approval of Assignment" beginning on page 16 of this proxy statement.

Subsidiaries

As part of the Dissolution, we may take actions with respect to our subsidiaries, based on the advice and counsel of our legal and other advisors and in accordance with the requirements of the laws and charter documents governing such subsidiary, to liquidate, dissolve or otherwise wind up such subsidiaries.

Legal Claims

We will defend any claims against us, our current and former officers or directors or our subsidiaries, whether a claim exists before the Effective Time or is brought during the Survival Period, based on advice and counsel of our legal and other advisors and in such manner, at such time and with such costs and expenses as our Board may approve from time to time. During the Survival Period, and subject to the Assignment process (assuming approval of the Assignment Proposal), we may continue to prosecute any claims that we had against others before the Effective Time and may institute any new claims against any person as the Board may determine necessary or advisable to protect the Company and its assets and rights or to implement the Plan of Dissolution. At the Board's discretion, and subject to the Assignment process (assuming approval of the Assignment Proposal), we may defend, prosecute or settle any lawsuits, as applicable.

Effective Time; Stock of the Company

The Effective Time will be the time the Certificate of Dissolution is filed with the office of the Secretary of State or such later date and time that is stated in the Certificate of Dissolution.

From and after the Effective Time, and subject to applicable law, each holder of shares of our Common Stock shall cease to have any rights in respect of that stock, except the right to receive distributions, if any,

pursuant to and in accordance with the Plan of Dissolution and the DGCL. After the Effective Time, our stock transfer records shall be closed, and we will not record or recognize any transfer of our Common Stock occurring after the Effective Time, except such transfers occurring by will, intestate succession or operation of law. We expect the Effective Time to be as soon as reasonably practicable after the Dissolution is approved by our stockholders. No stockholder shall have any appraisal rights in connection with our Dissolution and winding-up. It is anticipated that no further trading of our shares will occur after the Effective Time.

Unclaimed Distributions

If any distribution to a stockholder cannot be made by the Company, whether because the stockholder cannot be located, has not surrendered a certificate evidencing ownership of the Company's Common Stock or provided other evidence of ownership as required in the Plan of Dissolution or by the Board or for any other reason, the distribution to which the stockholder is otherwise entitled will be transferred, at such time as the final liquidating distribution is made by us, or as soon as practicable after that distribution, to the official of such state or other jurisdiction authorized by applicable law to receive the proceeds of the distribution. The proceeds of such distribution will thereafter be held solely for the benefit of and for ultimate distribution to the stockholder as the sole equitable owner of the distribution and will be treated as abandoned property and escheat to the applicable state or other jurisdiction in accordance with applicable law. The proceeds of any such distribution will not revert to or become the property of us or any other stockholder. The foregoing applies only to distributions (if any) made by the Company. To the extent the Assignment is effected, the Assignee may employ other procedures for unclaimed distributions.

Liquidating Trust

While we do not currently propose transferring our assets to a liquidating trust, we may do so if deemed appropriate by our Board, based on advice of our legal, tax and accounting advisors. We may, for example, transfer assets to a liquidating trust if we are unable to complete the Dissolution within the initial three-years of the Survival Period. However, as explained in this proxy statement, assuming approval of the Assignment Proposal, all or substantially all of the our assets will be assigned to an Assignee who will liquidate such assets for the benefit of our creditors. See the section entitled "Proposal 1: Approval of Assignment" beginning on page 16 of this proxy statement.

Abandonment, Exceptions, Modifications, Clarifications and Amendments

Notwithstanding the authorization of the Dissolution by our stockholders as described in this proxy statement, our Board will have the right, as permitted by the DGCL, to abandon the Dissolution at any time before the Effective Time and terminate our Plan of Dissolution, without any action by our stockholders, if our Board determines that doing so is in the best interest of us and our stockholders. Without further action by our stockholders, our Board may, to the extent permitted by Delaware law, waive, modify or amend any part of our Plan of Dissolution, and may provide for exceptions to or clarifications of the terms of our Plan of Dissolution. After the Effective Time, revocation of the Dissolution would require stockholder approval under Delaware law.

Contingent Liabilities; Reserves

Under Delaware law, we are required, in connection with the Dissolution, to pay or make reasonable provision for payment of our liabilities and obligations. Subject to the Assignment process (assuming approval of the Assignment Proposal), we will pay all of our expenses (including operating and wind-up expenses to be incurred throughout the Dissolution and wind-up process) and other known, non-contingent liabilities. We have used and, subject to the Assignment process (assuming approval of the Assignment Proposal), anticipate continuing to use cash until the end of the Survival Period for a number of items, including, but not limited to, the following:

- ongoing operating and reporting expenses;
- expenses, including retention amounts, incurred in connection with extending our directors' and officers' insurance coverage;

- expenses incurred in connection with the Dissolution;
- · taxes imposed upon us and any of our assets; and
- professional, legal, consulting and accounting fees.

Subject to the Assignment process (assuming approval of the Assignment Proposal), we will maintain a reserve, consisting of cash or other assets that we believe will be adequate for the satisfaction of all of our current unknown, contingent and/or conditional claims and liabilities. We may also take other steps to provide for the satisfaction of the reasonably estimated amount of such claims and liabilities, including acquiring insurance coverage with respect to certain claims and liabilities.

The estimated amount of the reserve (if any) would be based upon certain estimates and assumptions and a review of our estimated operating expenses and future estimated liabilities, including, without limitation, estimated operating costs, directors' and officers' insurance, legal, accounting and consulting fees and miscellaneous expenses, and accrued expenses reflected in our financial statements. There can be no assurance that the reserve will be sufficient. If any of our estimates regarding the expenses to be incurred in the liquidation process, including expenses of personnel required and other operating expenses (including legal, accounting and consulting fees) necessary to dissolve and liquidate the Company and the expenses to satisfy outstanding obligations, liabilities and claims during the liquidation process, are inaccurate, we may be required to increase the amount of the reserve. After the liabilities, expenses and obligations for which the reserve is established have been satisfied in full (or determined not to be owed), we will distribute to our stockholders any remaining portion of the reserve.

In the event we fail to create an adequate reserve for the payment of our expenses and liabilities and amounts have been distributed to the stockholders under the Plan of Dissolution, our creditors may be able to pursue claims against our stockholders directly to the extent that they have claims co-extensive with such stockholders' receipt of liquidating distributions. See the section entitled "Risk Factors — Risk Factors Related to the Dissolution — Our stockholders may be liable to third parties for part or all of the amount received from us in our liquidating distributions if reserves are inadequate" beginning on page 2 of this proxy statement.

If it was determined by a court that we failed to make adequate provision for our expenses and liabilities or if the amount required to be paid in respect of such liabilities exceeded the amount available from the reserve and any assets of the liquidating trust or trusts, a creditor of ours could seek an injunction against the making of liquidating distributions under the Plan of Dissolution on the grounds that the amounts to be distributed were needed to provide for the payment of our expenses and liabilities. Any such action could delay or substantially diminish the cash distributions to be made to stockholders under the Plan of Dissolution.

Reporting Requirements

Whether or not the Dissolution is approved, we will have an obligation to continue to comply with the applicable reporting requirements of the Exchange Act until we have exited from such reporting requirements. We plan to initiate steps to exit from certain reporting requirements under the Exchange Act. However, such process may be protracted and we may be required to continue to file Current Reports on Form 8-K to disclose material events, including those related to the Dissolution. Accordingly, we will continue to incur expenses that will reduce the amount available for distribution, including expenses of complying with public company reporting requirements and paying its service providers, among others.

Interests of Certain Persons in the Dissolution

After the Effective Time, we expect that our Board (or some subset thereof) and our officer will continue in his positions for the purpose of winding up our business and affairs. If the stockholders approve the Assignment Proposal and Dissolution Proposal, our sole officer and director, Mr. Jalbert, will be compensated in the amount of \$50,000 for his first year of service, and thereafter \$25,000 per year for a period of three years total.

See "Security Ownership of Certain Beneficial Owners and Management" for information regarding the number of shares of Common Stock owned by our directors and executive officers.

Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws and the DGCL

During the Survival Period, we will continue to be governed by our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, insofar as their terms apply and insofar as necessary or appropriate to implement our Plan of Dissolution. Our Board will continue to have the authority to amend our Amended and Restated Bylaws as it may deem necessary or advisable. To any extent that the provisions of our Plan of Dissolution conflict with any provision of the DGCL, the provisions of the DGCL shall prevail.

Authority of the Board

Our Board, without further action by our stockholders, is authorized to take all actions as they deem necessary or advisable to implement our Plan of Dissolution. All determinations and decisions to be made by our Board will be at the absolute and sole discretion of our Board.

Votes Required

The affirmative vote of a majority of the shares of our Common Stock outstanding on the Record Date and entitled to vote on the Dissolution Proposal is required to approve the Dissolution Proposal. Abstentions, broker non-votes, and failures to vote will have the same effect as a vote "AGAINST" the Dissolution Proposal.

Board Recommendation

The Board recommends that the stockholders vote "FOR" the Dissolution Proposal to approve the Dissolution in accordance with the terms and conditions of the Plan of Dissolution.

PROPOSAL 3: APPROVAL OF ADJOURNMENT OF SPECIAL MEETING TO SOLICIT ADDITIONAL PROXIES

General

If at the Special Meeting the number of shares voting in favor of the approval of the Assignment Proposal and/or the Dissolution Proposal is insufficient to approve such proposal under Delaware law, Axcella intends to move to adjourn the Special Meeting in order to enable the Board to solicit additional proxies in respect of the approval of the Assignment Proposal and/or Dissolution Proposal. In that event, Axcella may ask Axcella's stockholders to vote only upon the Adjournment Proposal during such portion of the Special Meeting.

Axcella is asking that you approve the Adjournment Proposal, which will authorize the adjournment of the Special Meeting, from time to time, to a later date or dates, for the purpose of soliciting additional proxies. If the stockholders approve the Adjournment Proposal, Axcella could adjourn the Special Meeting and use the additional time to solicit additional proxies, including the solicitation of proxies from stockholders that have previously voted.

Votes Required

If a quorum is present at the Special Meeting, the affirmative vote of the holders a majority of the votes properly cast is required for the approval of the Adjournment Proposal. Broker non-votes (if any) and abstentions will not be counted as votes cast on the matter and will have no effect on the outcome of the Adjournment Proposal.

Recommendation of the Board

The Board believes that if the number of shares voting in favor of the Assignment Proposal and/or Dissolution Proposal is insufficient to approve such proposal, it is in the best interests of Axcella to enable Axcella to continue to solicit proxies until a sufficient number of votes are obtained to approve the Assignment Proposal and/or Dissolution Proposal.

The Board unanimously recommends that you vote "FOR" the Adjournment Proposal.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information, to the extent known by us or ascertainable from public filings, with respect to the beneficial ownership of our Common Stock as of October 31, 2023, by:

- · each of our directors;
- each of our named executive officers;
- all of our directors and executive officers as a group; and
- each person, or group of affiliated persons, who is known by us to beneficially own 5% or more of our Common Stock.

The column entitled "Shares Beneficially Owned" is based on a total of 2,947,661 shares of our Common Stock outstanding as of October 31, 2023.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our Common Stock. Shares of our Common Stock subject to options that are currently exercisable or exercisable within 60 days of October 31, 2023, are considered outstanding and beneficially owned by the person holding the options for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our Common Stock beneficially owned by them, subject to community property laws, where applicable. Except as otherwise indicated in the table below, addresses of named beneficial owners are in care of Axcella Therapeutics, P.O. Box 1270, Littleton, Massachusetts 04160.

Name of Beneficial Owner	Shares Beneficially Owned	Percentage of Shares Beneficially Owned
5% or Greater Stockholders:		
Flagship Pioneering ⁽¹⁾	1,170,061	39.7%
Nestlé S.A. ⁽²⁾	444,217	15.1%
HarbourVest Partners, LLC ⁽³⁾	248,317	8.4%
Directors, Named Executive Officers and Other Executive Officers		
William R. Hinshaw, Jr. (4)	66,099	2.2%
Paul Fehlner, J.D., Ph.D. ⁽⁵⁾	11,492	*
Martin Hendrix, Ph.D. ⁽⁶⁾	802	*
Catherine Angell Sohn, Pharm.D. ⁽⁷⁾	3,203	*
William D. "Chip" Baird ⁽⁸⁾	4,521	*
Gary P. Pisano, Ph.D. ⁽⁹⁾	6,151	*
Cristina M. Rondinone, Ph.D. (10)	4,325	*
Paul Sekhri ⁽¹¹⁾	802	*
Michael Rosenblatt ⁽¹²⁾	1,332	*
Robert Rosiello ⁽¹³⁾	536	*
Torben Straight Nissen ⁽¹⁴⁾	536	*
Craig Jalbert (15)	_	*
All executive officers and directors as a group (12 persons)	99,799	2.2%

^{*} Represents beneficial ownership of less than one percent. Share amounts in footnotes 1 through 4 below do not provide for the Reverse Stock Split.

⁽¹⁾ Based solely on a Schedule 13D/A filed with the SEC on October 17, 2022, consists of (i) 2,035,830 shares of Common Stock held by Flagship VentureLabs IV, LLC ("VentureLabs IV") (ii) 14,101,638 shares of Common Stock held by Flagship Ventures Fund IV, L.P. ("Flagship Ventures Fund IV General

- Partner LLC") (iii) 2,004,657 shares of Common Stock held by Flagship Ventures Fund IV-Rx, L.P (Flagship Ventures Fund IV General Partner LLC) (iv) 1,761,029 shares of Common Stock held by Flagship Ventures Fund 2007, L.P. (Flagship Ventures 2007 General Partner LLC) (v) 6,299,611 shares of Common Stock held by Flagship Ventures Opportunities Fund I, L.P. ("Flagship Ventures Opportunities Fund I General Partner LLC") (vi) 3,048,780 shares of Common Stock held by FPA, L.P. Noubar B. Afeyan, Ph.D. is the sole manager of Flagship Fund IV GP, Flagship Fund 2007 GP and Flagship Opportunities GP, and he may be deemed to beneficially own the shares directly held by the Flagship Fund IV Funds, Flagship Fund 2007, and Flagship Opportunities. Effective May 11, 2020, Mr. Kania retired from Flagship Pioneering, Inc. and as manager of Flagship Fund IV GP and Flagship Fund 2007 GP. The address of each of the entities and individuals listed above is 55 Cambridge Parkway, Suite 800E, Cambridge, MA 02142.
- (2) Based solely on a Schedule 13G/A filed with the SEC on February 2, 2023, (i) Société des Produits Nestlé S.A. ("SPN") and (ii) Nestlé S.A. ("Nestlé"), the ultimate parent of SPN, each has shared voting power and shared dispositive power with respect to 11,105,438 shares. Nestlé disclaims beneficial ownership of such shares of Common Stock except to the extent of its pecuniary interest therein. The principal executive office of SPN and Nestlé is Avenue Nestlé 55, CH-1800, Vevey Switzerland.
- (3) Based solely on a Schedule 13G/A filed with the SEC on February 14, 2023, consists of 6,207,929 shares Common Stock owned directly by SMRS-TOPE LLC. HarbourVest Partners, LLC ("HarbourVest") is the General Partner of HarbourVest Partners L.P., which is the Manager of HVST-TOPE LLC, which is the Managing Member of SMRS-TOPE LLC. Each of HarbourVest, HarbourVest Partners L.P. and HVST-TOPE LLC may be deemed to have a beneficial interest in the shares held by SMRS-TOPE LLC. SMRS-TOPE LLC has the sole power to vote or to direct the vote of; and, to dispose or to direct the disposition of 6,207,929 shares of Common Stock. HarbourVest, HarbourVest Partners L.P. and HVST-TOPE LLC may be deemed to have shared power to vote or to direct the vote of; and, to dispose or to direct the disposition of 6,207,929 shares of Common Stock. Voting and investment power over the securities owned directly by SMRS-TOPE LLC is exercised by the Investment Committee of HarbourVest. Each of HarbourVest, HarbourVest Partners L.P. and HVST-TOPE LLC and the members of the HarbourVest Investment Committee disclaim beneficial ownership of the shares held directly by SMRS-TOPE LLC. The principal business office of each HarbourVest Partners, LLC, HarbourVest Partners L.P., HVST-TOPE LLC and SMRS-TOPE LLC is One Financial Center, Boston, MA 02111.
- (4) Consists of 3,357 shares of Common Stock and 62,742 shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.
- (5) Consists of 2,323 shares of Common Stock and 9,169 shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.
- (6) Consists entirely of shares of Common Stock.
- (7) Consists of 283 shares of Common Stock and 2,920 shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.
- (8) Consists entirely of shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.
- (9) Consists of 3,671 shares of Common Stock and 2,480 shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.
- (10) Consists entirely of shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.
- (11) Consists entirely of shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.
- (12) Consists entirely of shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.
- (13) Consists entirely of shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.
- (14) Consists entirely of shares of Common Stock underlying options exercisable within 60 days of October 31, 2023.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file annual and quarterly reports and other reports and information with the SEC. The SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers, including us, that file electronically with the SEC. The public can obtain any documents that we file electronically with the SEC at http://www.sec.gov. We will provide without charge to you, upon written or oral request, a copy of the reports and other information filed with the SEC.

Any requests for copies of information, reports or other filings with the SEC should be directed to Axcella Health Inc., PO Box 1270, Littleton, MA 01460, Attention: Corporate Secretary. In order to receive timely delivery of the documents in advance of the Special Meeting, you must make your request for information no later than [•], 2023.

HOUSEHOLDING

Some banks, brokers, and other nominee record holders may be participating in the practice of "house holding" proxy statements and annual reports. This means that only one copy of our proxy statement, may have been sent to multiple stockholders sharing the same household. We will promptly deliver a separate copy of the proxy statement to you upon written request to Axcella Health Inc., PO Box 1270, Littleton, MA 01460, Attention: Corporate Secretary. If you want to receive separate copies of the proxy statement or annual reports to stockholders in the future, or if you are receiving multiple copies and would like to receive only one copy per household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address.

OTHER MATTERS

Our Board does not know of any other matters to be brought before the Special Meeting. If any other matters not mentioned in this proxy statement are properly brought before the Special Meeting, the individuals named in the enclosed proxy intend to use their discretionary voting authority under the proxy to vote the proxy in accordance with their best judgment on those matters.

EXHIBIT A

AXCELLA HEALTH INC. STOCKHOLDER RESOLUTIONS

WHEREAS, the Board of Directors (the "Board") of Axcella Health Inc., a Delaware corporation ("Axcella"), has determined that effecting the transfer of all or substantially all of Axcella's assets through an assignment for the benefit of creditors (the "Assignment") is advisable and in the best interests of Axcella and Axcella's stockholders;

WHEREAS, the Board has authorized and approved the Assignment and has recommended that Axcella's stockholders authorize and approve the Assignment;

WHEREAS, Section 271 of the Delaware General Corporation Law provides that the affirmative vote of a majority of the voting power of the outstanding shares of capital stock of Axcella is required to approve the Assignment; and

WHEREAS, such holders of a majority of the voting power of the outstanding shares of capital stock of Axcella desire to authorize and approve the Assignment pursuant to the resolutions set forth below.

NOW THEREFORE, BE IT RESOLVED, that the Assignment is hereby approved and authorized in all respects; and be it further

RESOLVED, that the appropriate officers of Axcella are hereby authorized to take or cause to be taken all such further actions as the Board deems necessary or advisable to consummate and perform on behalf of Axcella the transactions contemplated by the Assignment, including the execution and delivery of such agreements, certificates, documents and instruments as shall be necessary or desirable to effect the Assignment and to carry out the purposes and intent of the foregoing resolutions, and the paying of all necessary fees and expenses in connection with the Assignment.

EXHIBIT B

PLAN OF LIQUIDATION AND DISSOLUTION OF AXCELLA HEALTH INC.

This Plan of Liquidation and Dissolution (the "Plan") is intended to accomplish the complete liquidation and dissolution of AXCELLA HEALTH INC., a Delaware corporation (such corporation or a successor entity, the "Company"), in accordance with Section 281(b) of the General Corporation Law of the State of Delaware (the "DGCL").

Approval of Plan. The Board of Directors of the Company (the "Board") has adopted this Plan and presented the Plan to the Company's stockholders to take action on the Plan. If the Plan is adopted by the requisite vote of the Company's stockholders, the Plan shall constitute the adopted Plan of the Company.

Certificate of Dissolution. Subject to Section 14 hereof, after the stockholders of the Company approve the dissolution of the Company, the Company shall file with the Secretary of State of the State of Delaware a certificate of dissolution (the "Certificate of Dissolution") in accordance with the DGCL at such time as determined by the Board in its sole discretion (the time of such filing, or such later time as stated therein, the "Effective Time").

Cessation of Business Activities. After the Effective Time, the Company shall not engage in any business activities except to the extent necessary to preserve the value of its assets, wind up its business affairs and distribute its assets in accordance with this Plan.

Continuing Employees and Consultants. For the purpose of effecting the dissolution of the Company, the Company may hire or retain such employees, consultants and advisors as the Company deems necessary or desirable to supervise or facilitate the dissolution and winding up of the Company.

Dissolution Process.

From and after the Effective Time, the Company (or any successor entity of the Company) shall complete the following corporate actions:

- (i) The Company (a) shall pay or make reasonable provision to pay all claims and obligations, including all contingent, conditional or unmatured contractual claims known to the Company, (b) shall make such provision as will be reasonably likely to be sufficient to provide compensation for any claim against the Company which is the subject of a pending action, suit or proceeding to which the Company is a party, and (c) shall make such provision as will be reasonably likely to be sufficient to provide compensation for claims that have not been made known to the Company or that have not arisen but that, based on facts known to the Company, are likely to arise or to become known to the Company within 10 years after the date of dissolution. All such claims shall be paid in full and any such provision for payment made shall be made in full if there are sufficient assets. If there are insufficient assets, such claims and obligations shall be paid or provided for according to their priority and, among claims of equal priority, ratably to the extent of assets legally available therefor.
- (ii) After the payments are made pursuant to clause (i) above, if there are any assets remaining, the Company shall distribute to its stockholders, in accordance with the Company's certificate of incorporation, as amended and/or restated through the Effective Time, all remaining assets, including all available cash, including the cash proceeds of any sale, exchange or disposition, except such cash, property or assets as are required for paying or making reasonable provision for the claims and obligations of the Company. Such distribution may occur all at once or in a series of distributions and shall be in cash or assets, in such amounts, and at such time or times, as the Board in its absolute discretion, may determine. If and to the extent deemed necessary, appropriate or desirable by the Board, in its absolute discretion, the Company may establish and set aside a reasonable amount of cash and/or property to satisfy claims against the Company, including, without limitation, tax obligations, all expenses related to the sale of the Company's property and assets, all expenses related to the collection and defense of the Company's property and assets, and the liquidation and dissolution provided for in this Plan.

Notwithstanding anything contained herein to the contrary, the Company, at the discretion of the Board, may opt to dissolve and wind-up the Company in accordance with the procedures set forth in Sections 280 and 281(a) of the DGCL.

Cancellation of Stock. The distributions to the Company's stockholders pursuant to Section 5 hereof shall be deemed to be in complete cancellation of all of the outstanding shares of capital stock of the Company as of the date that the continuation of the Company's legal existence terminates in accordance with Section 278 of the DGCL. From and after the Effective Time, and subject to applicable law, the holder of all outstanding shares of capital stock of the Company shall cease to have any rights in respect thereof, except the right to receive distributions, if any, pursuant to and in accordance with Section 5 hereof. As a condition to receipt of any distribution to the Company's stockholders, the Company may require the Company's stockholders to (i) surrender their certificates evidencing its shares of capital stock to the Company, or (ii) furnish the Company with evidence satisfactory to the Company of the loss, theft or destruction of such certificates, together with such surety bond or other security or indemnity as may be required by and satisfactory to the Company. The Company will close its stock transfer books and discontinue recording transfers of shares of capital stock of the Company at the Effective Time, and thereafter any certificate representing shares of capital stock of the Company will not be assignable or transferable on the books of the Company except by will, intestate succession, operation of law or upon the dissolution of the stockholders or their successors.

Conduct of the Company Following Approval of the Plan. Under Delaware law, dissolution is effective upon the filing of a certificate of dissolution with the Secretary of State of the State of Delaware or upon such future effective date as may be set forth in the certificate of dissolution. Section 278 of the DGCL provides that a dissolved corporation shall be continued for the term of 3 years from such dissolution or for such longer period as the Court of Chancery shall in its discretion direct, bodies corporate for the purpose of prosecuting and defending suits, whether civil, criminal or administrative, by or against it, and of enabling it gradually to settle and close its business, to dispose of and convey its property, to discharge its liabilities and to distribute to its stockholders any remaining assets, but not for the purpose of continuing the business for which the corporation was organized. With respect to any action, suit or proceeding begun by or against the corporation either prior to or within 3 years after the date of its dissolution, the action shall not abate by reason of the dissolution of the corporation; the corporation shall, solely for the purpose of such action, suit or proceeding, be continued as a body corporate beyond the 3-year period and until any judgments, orders or decrees therein shall be fully executed, without the necessity for any special direction to that effect by the Court of Chancery. The powers of the officers and directors of the corporation shall continue during this time period in order to allow them to take the necessary steps to wind up the affairs of the corporation.

Absence of Appraisal Rights. Under Delaware law, the Company's stockholders are not entitled to appraisal rights for shares of capital stock of the Company in connection with the transactions contemplated by the Plan.

Abandoned Property. If any distribution to the stockholders of the Company cannot be made, whether because such stockholder cannot be located, has not surrendered its certificate evidencing the capital stock as required hereunder or for any other reason, the distribution to which such stockholder is entitled shall be transferred, at such time as the final liquidating distribution is made by the Company, to the official of such state or other jurisdiction authorized by applicable law to receive the proceeds of such distribution. The proceeds of such distribution shall thereafter be held solely for the benefit of and for ultimate distribution to such stockholders as the sole equitable owner thereof and shall be treated as abandoned property and escheat to the applicable state or other jurisdiction in accordance with applicable law. In no event shall the proceeds of any such distribution revert to or become the property of the Company.

Stockholder Consent to Sale of Assets. Adoption of this Plan by the stockholders of the Company shall constitute the approval of such stockholders of the sale, exchange or other disposition in liquidation of all of the property and assets of the Company, whether such sale, exchange or other disposition occurs in one transaction or a series of transactions, and shall constitute ratification of all contracts for sale, exchange or other disposition that are conditioned on adoption of this Plan.

Expenses of Dissolution. In connection with and for the purposes of implementing and assuring completion of this Plan, the Company may pay any brokerage, agency, professional and other fees and expenses of persons rendering services to the Company in connection with the collection, sale, exchange or other disposition of the Company's property and assets and the implementation of this Plan.

Compensation. In connection with and for the purpose of implementing and assuring the completion of this Plan, the Company may pay the Company's officers, directors, employees, agents and representatives, or any of them, compensation or additional compensation above their regular compensation, including pursuant to severance and retention agreements, in money or other property, in recognition of the extraordinary efforts they, or any of them, will be required to undertake, or actually undertake, in connection with the implementation of this Plan. Adoption of this Plan by the requisite vote of the outstanding capital stock of the Company shall constitute the approval of the Company's stockholders of the payment of any such compensation.

Indemnification. The Company shall continue to indemnify its officers, directors, employees, agents and trustee in accordance with its Certificate of Incorporation, Bylaws, and contractual arrangements as therein or elsewhere provided, the Company's existing directors' and officers' liability insurance policy and applicable law, and such indemnification shall apply to acts or omissions of such persons in connection with the implementation of this Plan and the winding up of the affairs of the Company. The Company is authorized to obtain and maintain insurance as may be necessary to cover the Company's indemnification obligations.

Modification or Abandonment of the Plan. Notwithstanding adoption of this Plan by the stockholders of the Company, the Board may modify, amend or abandon this Plan and the transactions contemplated hereby without further action by such stockholders to the extent permitted by the DGCL.

Authorization. The Board is hereby authorized, without further action by the stockholders of the Company, to do and perform or cause the officers of the Company to do and perform, any and all acts, and to make, execute, deliver or adopt any and all agreements, resolutions, conveyances, certificates and other documents of every kind that are deemed necessary, appropriate or desirable, to implement this Plan and the transactions contemplated hereby, including, without limiting the foregoing, all filings or acts required by any state or federal law or regulation to wind up the affairs of the Company.

Sections 275 through 283 of the DGCL

§ 275. Dissolution generally; procedure.

- (a) If it should be deemed advisable in the judgment of the board of directors of any corporation that it should be dissolved, the board, after the adoption of a resolution to that effect by a majority of the whole board at any meeting called for that purpose, shall cause notice of the adoption of the resolution and of a meeting of stockholders to take action upon the resolution to be given to each stockholder entitled to vote thereon as of the record date for determining the stockholders entitled to notice of the meeting.
- (b) At the meeting a vote shall be taken upon the proposed dissolution. If a majority of the outstanding stock of the corporation entitled to vote thereon shall vote for the proposed dissolution, a certification of dissolution shall be filed with the Secretary of State pursuant to subsection (d) of this section.
- (c) Dissolution of a corporation may also be authorized without action of the directors if all the stockholders entitled to vote thereon shall consent in writing and a certificate of dissolution shall be filed with the Secretary of State pursuant to subsection (d) of this section.
- (d) If dissolution is authorized in accordance with this section, a certificate of dissolution shall be executed, acknowledged and filed, and shall become effective, in accordance with § 103 of this title. Such certificate of dissolution shall set forth:
 - (1) The name of the corporation;
 - (2) The date dissolution was authorized;
 - (3) That the dissolution has been authorized by the board of directors and stockholders of the corporation, in accordance with subsections (a) and (b) of this section, or that the dissolution has been authorized by all of the stockholders of the corporation entitled to vote on a dissolution, in accordance with subsection (c) of this section;
 - (4) The names and addresses of the directors and officers of the corporation; and
 - (5) The date of filing of the corporation's original certificate of incorporation with the Secretary of State.
- (e) The resolution authorizing a proposed dissolution may provide that notwithstanding authorization or consent to the proposed dissolution by the stockholders, or the members of a nonstock corporation pursuant to § 276 of this title, the board of directors or governing body may abandon such proposed dissolution without further action by the stockholders or members.
- (f) If a corporation has included in its certificate of incorporation a provision limiting the duration of its existence to a specified date in accordance with § 102(b)(5) of this title, a certificate of dissolution shall be executed, acknowledged and filed in accordance with § 103 of this title within 90 days before such specified date and shall become effective on such specified date. Such certificate of dissolution shall set forth:
 - (1) The name of the corporation;
 - (2) The date specified in the corporation's certificate of incorporation limiting the duration of its existence;
 - (3) The names and addresses of the directors and officers of the corporation; and
 - (4) The date of filing of the corporation's original certificate of incorporation with the Secretary of State.

The failure to timely file a certificate of dissolution pursuant to this subsection with respect to any corporation shall not affect the expiration of such corporation's existence on the date specified in its certificate of incorporation pursuant to $\S 102(b)(5)$ of this title and shall not eliminate the requirement to

file a certificate of dissolution as contemplated by this subsection. If a certificate of good standing is issued by the Secretary of State after the date specified in a corporation's certificate of incorporation pursuant to § 102(b)(5) of this title, such certificate of good standing shall be of no force or effect.

- (g) A corporation shall be dissolved upon the earlier of:
- (1) The date specified in such corporation's certificate of incorporation pursuant to \S 102(b)(5) of this title; or
- (2) The effectiveness in accordance with § 103 of this title of a certificate of dissolution filed in accordance with this section.

§ 276. Dissolution of nonstock corporation; procedure.

- (a) Whenever it shall be desired to dissolve any nonstock corporation, the governing body shall perform all the acts necessary for dissolution which are required by § 275 of this title to be performed by the board of directors of a corporation having capital stock. If any members of a nonstock corporation are entitled to vote for the election of members of its governing body or are entitled to vote for dissolution under the certificate of incorporation or the bylaws of such corporation, such members shall perform all the acts necessary for dissolution which are contemplated by § 275 of this title to be performed by the stockholders of a corporation having capital stock, including dissolution without action of the members of the governing body if all the members of the corporation entitled to vote thereon shall consent in writing and a certificate of dissolution shall be filed with the Secretary of State pursuant to § 275(d) of this title. If there is no member entitled to vote thereon, the dissolution of the corporation shall be authorized at a meeting of the governing body, upon the adoption of a resolution to dissolve by the vote of a majority of members of its governing body then in office. In all other respects, the method and proceedings for the dissolution of a nonstock corporation shall conform as nearly as may be to the proceedings prescribed by § 275 of this title for the dissolution of corporations having capital stock.
- (b) If a nonstock corporation has not commenced the business for which the corporation was organized, a majority of the governing body or, if none, a majority of the incorporators may surrender all of the corporation rights and franchises by filing in the office of the Secretary of State a certificate, executed and acknowledged by a majority of the incorporators or governing body, conforming as nearly as may be to the certificate prescribed by § 274 of this title.
- (c) If a nonstock corporation has included in its certificate of incorporation a provision limiting the duration of its existence to a specified date in accordance with § 102(b)(5) of this title, a certificate of dissolution shall be executed, acknowledged and filed in accordance with § 103 of this title within 90 days before such specified date and shall become effective on such specified date. Such certificate of dissolution shall include the information required by § 275(f) of this title. The failure to timely file a certificate of dissolution pursuant to this subsection with respect to any nonstock corporation shall not affect the expiration of such corporation's existence on the date specified in its certificate of incorporation pursuant to § 102(b)(5) of this title and shall not eliminate the requirement to file a certificate of dissolution as contemplated by this subsection. If a certificate of good standing is issued by the Secretary of State after the date specified in a nonstock corporation's certificate of incorporation pursuant to § 102(b)(5) of this title, such certificate of good standing shall be of no force or effect.

§ 277. Payment of franchise taxes before dissolution, merger, transfer or conversion.

No corporation shall be dissolved, merged, transferred (without continuing its existence as a corporation of this State) or converted under this chapter until:

- (1) All franchise taxes due to or assessable by the State including all franchise taxes due or which would be due or assessable for the entire calendar month during which such dissolution, merger, transfer or conversion becomes effective have been paid by the corporation; and
- **(2)** All annual franchise tax reports including a final annual franchise tax report for the year in which such dissolution, merger, transfer or conversion becomes effective have been filed by the corporation;

notwithstanding the foregoing, if the Secretary of State certifies that an instrument to effect a dissolution, merger, transfer or conversion has been filed in the Secretary of State's office, such corporation shall be dissolved, merged, transferred or converted at the effective time of such instrument.

§ 278. Continuation of corporation after dissolution for purposes of suit and winding up affairs.

All corporations, whether they expire by their own limitation or are otherwise dissolved, shall nevertheless be continued, for the term of 3 years from such expiration or dissolution or for such longer period as the Court of Chancery shall in its discretion direct, bodies corporate for the purpose of prosecuting and defending suits, whether civil, criminal or administrative, by or against them, and of enabling them gradually to settle and close their business, to dispose of and convey their property, to discharge their liabilities and to distribute to their stockholders any remaining assets, but not for the purpose of continuing the business for which the corporation was organized. With respect to any action, suit or proceeding begun by or against the corporation either prior to or within 3 years after the date of its expiration or dissolution, the action shall not abate by reason of the dissolution of the corporation; the corporation shall, solely for the purpose of such action, suit or proceeding, be continued as a body corporate beyond the 3-year period and until any judgments, orders or decrees therein shall be fully executed, without the necessity for any special direction to that effect by the Court of Chancery.

Sections 279 through 282 of this title shall apply to any corporation that has expired by its own limitation, and when so applied, all references in those sections to a dissolved corporation or dissolution shall include a corporation that has expired by its own limitation and to such expiration, respectively.

§ 279. Trustees or receivers for dissolved corporations; appointment; powers; duties.

When any corporation organized under this chapter shall be dissolved in any manner whatever, the Court of Chancery, on application of any creditor, stockholder or director of the corporation, or any other person who shows good cause therefor, at any time, may either appoint 1 or more of the directors of the corporation to be trustees, or appoint 1 or more persons to be receivers, of and for the corporation, to take charge of the corporation's property, and to collect the debts and property due and belonging to the corporation, with power to prosecute and defend, in the name of the corporation, or otherwise, all such suits as may be necessary or proper for the purposes aforesaid, and to appoint an agent or agents under them, and to do all other acts which might be done by the corporation, if in being, that may be necessary for the final settlement of the unfinished business of the corporation. The powers of the trustees or receivers may be continued as long as the Court of Chancery shall think necessary for the purposes aforesaid.

§ 280. Notice to claimants; filing of claims.

(a)

- (1) After a corporation has been dissolved in accordance with the procedures set forth in this chapter, the corporation or any successor entity may give notice of the dissolution, requiring all persons having a claim against the corporation other than a claim against the corporation in a pending action, suit or proceeding to which the corporation is a party to present their claims against the corporation in accordance with such notice. Such notice shall state:
 - a. That all such claims must be presented in writing and must contain sufficient information reasonably to inform the corporation or successor entity of the identity of the claimant and the substance of the claim;
 - b. The mailing address to which such a claim must be sent;
 - c. The date by which such a claim must be received by the corporation or successor entity, which date shall be no earlier than 60 days from the date thereof; and
 - d. That such claim will be barred if not received by the date referred to in paragraph (a)(1)c. of this section; and

- e. That the corporation or a successor entity may make distributions to other claimants and the corporation's stockholders or persons interested as having been such without further notice to the claimant; and
- f. The aggregate amount, on an annual basis, of all distributions made by the corporation to its stockholders for each of the 3 years prior to the date the corporation dissolved.

Such notice shall also be published at least once a week for 2 consecutive weeks in a newspaper of general circulation in the county in which the office of the corporation's last registered agent in this State is located and in the corporation's principal place of business and, in the case of a corporation having \$10,000,000 or more in total assets at the time of its dissolution, at least once in all editions of a daily newspaper with a national circulation. On or before the date of the first publication of such notice, the corporation or successor entity shall mail a copy of such notice by certified or registered mail, return receipt requested, to each known claimant of the corporation including persons with claims asserted against the corporation in a pending action, suit or proceeding to which the corporation is a party.

- (2) Any claim against the corporation required to be presented pursuant to this subsection is barred if a claimant who was given actual notice under this subsection does not present the claim to the dissolved corporation or successor entity by the date referred to in paragraph (a)(1)c. of this section.
- (3) A corporation or successor entity may reject, in whole or in part, any claim made by a claimant pursuant to this subsection by mailing notice of such rejection by certified or registered mail, return receipt requested, to the claimant within 90 days after receipt of such claim and, in all events, at least 150 days before the expiration of the period described in § 278 of this title; provided however, that in the case of a claim filed pursuant to § 295 of this title against a corporation or successor entity for which a receiver or trustee has been appointed by the Court of Chancery the time period shall be as provided in § 296 of this title, and the 30-day appeal period provided for in § 296 of this title shall be applicable. A notice sent by a corporation or successor entity pursuant to this subsection shall state that any claim rejected therein will be barred if an action, suit or proceeding with respect to the claim is not commenced within 120 days of the date thereof, and shall be accompanied by a copy of §§ 278-283 of this title and, in the case of a notice sent by a court-appointed receiver or trustee and as to which a claim has been filed pursuant to § 295 of this title, copies of §§ 295 and 296 of this title.
- (4) A claim against a corporation is barred if a claimant whose claim is rejected pursuant to paragraph (a)(3) of this section does not commence an action, suit or proceeding with respect to the claim no later than 120 days after the mailing of the rejection notice.

(b)

- (1) A corporation or successor entity electing to follow the procedures described in subsection (a) of this section shall also give notice of the dissolution of the corporation to persons with contractual claims contingent upon the occurrence or nonoccurrence of future events or otherwise conditional or unmatured, and request that such persons present such claims in accordance with the terms of such notice. Provided however, that as used in this section and in § 281 of this title, the term "contractual claims" shall not include any implied warranty as to any product manufactured, sold, distributed or handled by the dissolved corporation. Such notice shall be in substantially the form, and sent and published in the same manner, as described in paragraph (a)(1) of this section.
- (2) The corporation or successor entity shall offer any claimant on a contract whose claim is contingent, conditional or unmatured such security as the corporation or successor entity determines is sufficient to provide compensation to the claimant if the claim matures. The corporation or successor entity shall mail such offer to the claimant by certified or registered mail, return receipt requested, within 90 days of receipt of such claim and, in all events, at least 150 days before the expiration of the period described in § 278 of this title. If the claimant offered such security does not deliver in writing to the corporation or successor entity a notice rejecting the offer within 120 days after receipt of such offer for security, the claimant shall be deemed to have accepted such security as the sole source from which to satisfy the claim against the corporation.

(c)

- (1) A corporation or successor entity which has given notice in accordance with subsection (a) of this section shall petition the Court of Chancery to determine the amount and form of security that will be reasonably likely to be sufficient to provide compensation for any claim against the corporation which is the subject of a pending action, suit or proceeding to which the corporation is a party other than a claim barred pursuant to subsection (a) of this section.
- (2) A corporation or successor entity which has given notice in accordance with subsections (a) and (b) of this section shall petition the Court of Chancery to determine the amount and form of security that will be sufficient to provide compensation to any claimant who has rejected the offer for security made pursuant to paragraph (b)(2) of this section.
- (3) A corporation or successor entity which has given notice in accordance with subsection (a) of this section shall petition the Court of Chancery to determine the amount and form of security which will be reasonably likely to be sufficient to provide compensation for claims that have not been made known to the corporation or that have not arisen but that, based on facts known to the corporation or successor entity, are likely to arise or to become known to the corporation or successor entity within 5 years after the date of dissolution or such longer period of time as the Court of Chancery may determine not to exceed 10 years after the date of dissolution. The Court of Chancery may appoint a guardian ad litem in respect of any such proceeding brought under this subsection. The reasonable fees and expenses of such guardian, including all reasonable expert witness fees, shall be paid by the petitioner in such proceeding.
- (d) The giving of any notice or making of any offer pursuant to this section shall not revive any claim then barred or constitute acknowledgment by the corporation or successor entity that any person to whom such notice is sent is a proper claimant and shall not operate as a waiver of any defense or counterclaim in respect of any claim asserted by any person to whom such notice is sent.
- (e) As used in this section, the term "successor entity" shall include any trust, receivership or other legal entity governed by the laws of this State to which the remaining assets and liabilities of a dissolved corporation are transferred and which exists solely for the purposes of prosecuting and defending suits, by or against the dissolved corporation, enabling the dissolved corporation to settle and close the business of the dissolved corporation, to dispose of and convey the property of the dissolved corporation, to discharge the liabilities of the dissolved corporation and to distribute to the dissolved corporation's stockholders any remaining assets, but not for the purpose of continuing the business for which the dissolved corporation was organized.
- (f) The time periods and notice requirements of this section shall, in the case of a corporation or successor entity for which a receiver or trustee has been appointed by the Court of Chancery, be subject to variation by, or in the manner provided in, the Rules of the Court of Chancery.
- (g) In the case of a nonstock corporation, any notice referred to in the last sentence of paragraph (a)(3) of this section shall include a copy of § 114 of this title. In the case of a nonprofit nonstock corporation, provisions of this section regarding distributions to members shall not apply to the extent that those provisions conflict with any other applicable law or with that corporation's certificate of incorporation or bylaws.

§ 281. Payment and distribution to claimants and stockholders.

- (a) A dissolved corporation or successor entity which has followed the procedures described in \S 280 of this title:
 - (1) Shall pay the claims made and not rejected in accordance with § 280(a) of this title,
 - (2) Shall post the security offered and not rejected pursuant to § 280(b)(2) of this title,
 - (3) Shall post any security ordered by the Court of Chancery in any proceeding under \S 280(c) of this title, and

(4) Shall pay or make provision for all other claims that are mature, known and uncontested or that have been finally determined to be owing by the corporation or such successor entity.

Such claims or obligations shall be paid in full and any such provision for payment shall be made in full if there are sufficient assets. If there are insufficient assets, such claims and obligations shall be paid or provided for according to their priority, and, among claims of equal priority, ratably to the extent of assets legally available therefor. Any remaining assets shall be distributed to the stockholders of the dissolved corporation; provided, however, that such distribution shall not be made before the expiration of 150 days from the date of the last notice of rejections given pursuant to § 280(a)(3) of this title. In the absence of actual fraud, the judgment of the directors of the dissolved corporation or the governing persons of such successor entity as to the provision made for the payment of all obligations under paragraph (a)(4) of this section shall be conclusive.

- (b) A dissolved corporation or successor entity which has not followed the procedures described in § 280 of this title shall, prior to the expiration of the period described in § 278 of this title, adopt a plan of distribution pursuant to which the dissolved corporation or successor entity (i) shall pay or make reasonable provision to pay all claims and obligations, including all contingent, conditional or unmatured contractual claims known to the corporation or such successor entity, (ii) shall make such provision as will be reasonably likely to be sufficient to provide compensation for any claim against the corporation which is the subject of a pending action, suit or proceeding to which the corporation is a party and (iii) shall make such provision as will be reasonably likely to be sufficient to provide compensation for claims that have not been made known to the corporation or that have not arisen but that, based on facts known to the corporation or successor entity, are likely to arise or to become known to the corporation or successor entity within 10 years after the date of dissolution. The plan of distribution shall provide that such claims shall be paid in full and any such provision for payment made shall be made in full if there are sufficient assets. If there are insufficient assets, such plan shall provide that such claims and obligations shall be paid or provided for according to their priority and, among claims of equal priority, ratably to the extent of assets legally available therefor. Any remaining assets shall be distributed to the stockholders of the dissolved corporation.
- (c) Directors of a dissolved corporation or governing persons of a successor entity which has complied with subsection (a) or (b) of this section shall not be personally liable to the claimants of the dissolved corporation.
- (d) As used in this section, the term "successor entity" has the meaning set forth in § 280(e) of this title.
- (e) The term "priority," as used in this section, does not refer either to the order of payments set forth in paragraph (a)(1)-(4) of this section or to the relative times at which any claims mature or are reduced to judgment.
- (f) In the case of a nonprofit nonstock corporation, provisions of this section regarding distributions to members shall not apply to the extent that those provisions conflict with any other applicable law or with that corporation's certificate of incorporation or bylaws.

§ 282. Liability of stockholders of dissolved corporations.

- (a) A stockholder of a dissolved corporation the assets of which were distributed pursuant to § 281(a) or (b) of this title shall not be liable for any claim against the corporation in an amount in excess of such stockholder's pro rata share of the claim or the amount so distributed to such stockholder, whichever is less.
- (b) A stockholder of a dissolved corporation the assets of which were distributed pursuant to § 281(a) of this title shall not be liable for any claim against the corporation on which an action, suit or proceeding is not begun prior to the expiration of the period described in § 278 of this title.
- (c) The aggregate liability of any stockholder of a dissolved corporation for claims against the dissolved corporation shall not exceed the amount distributed to such stockholder in dissolution.

§ 283. Jurisdiction.

The Court of Chancery shall have jurisdiction of any application prescribed in this subchapter and of all questions arising in the proceedings thereon, and may make such orders and decrees and issue injunctions therein as justice and equity shall require.

AXCELLA HEALTH INC. P.O. BOX 1270 LITTLETON, MASSACHUSETTS 01460



VOTE BY INTERNETBefore The Meeting - Go to <u>www.proxyvote.com</u> 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 [•]. 2023. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

 $\textit{During The Meeting -} \ \mathsf{Go} \ \mathsf{to} \ \underline{\mathbf{www.virtualshareholdermeeting.com/AXLA2023SM}}$

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 on [•], 2023. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL
Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. Proxy cards submitted by mail must be received no later than 11:59 p.m. Eastern Time on [+], 2023 to be voted at the special meeting.

VOTE,	MARK BLOCKS BELOW IN BLUE OR BLACK INK	AS FOLLO	DWS:					
					KEEP THIS PO			
		THIS PR	OXY CARD IS VALID ONLY	WHEN SIGNED AND DATED.	DE1/101.7.110	METOT	111151 5.	
AXCELL	A HEALTH INC.						_	_
								1
The Board of Directors recommends you vote FOR the following proposals:					For A	Against	Abstain	
1.	To approve the transfer of all or substantially	all of Axc	ella Health Inc.'s (the "Compan	y") assets through an assignment for	the benefit of creditors.	0	0	0
2. To approve the liquidation and dissolution of the Company and the Plan of Liquidation and Dissolution (the "Plan of Dissolution") which, if approved, will authorize the Company's Board of Directors to liquidate and dissolve the Company in accordance with the Plan of Dissolution.					0	0	0	
3.	To approve the grant of discretionary author date or dates, even if a quorum is present, t				time to time, to a later	0	0	0
	E: In their discretion, the proxies are authorized to intinuation thereof.	o vote on s	such other business as may proper	ly come before the meeting or any adjo	urnment, postponement,			
perso	e sign exactly as your name(s) appear(s) hereo nistrator, or other fiduciary, please give full title nnally. All holders must sign. If a corporation or ortnership name by authorized officer.	e as such. partnershi	signing as attorney, executor, Joint owners should each sign p, please sign in full corporate					
Sign	ature [PLEASE SIGN WITHIN BOX] Da	ate		Signature (Joint Owners)	Date			-

PRELIMINARY PROXY CARD SUBJECT TO COMPLETION, DATED NOVEMBER 6, 2023

Important Notice Regarding the Availability of Proxy Materials for the Special Meeting:

The Notice and Proxy Statement is available [•]

V25747-TBD

AXCELLA HEALTH INC. SPECIAL MEETING OF STOCKHOLDERS [•], 2023 [•] AM Eastern Time THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The stockholder(s) hereby appoint(s) Craig Jalbert, as proxy, with the power to appoint his substitute, and hereby authorize(s) him to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common Stock of AXCELLA HEALTH INC. that the stockholder(s) is/are entitled to vote at the Special Meeting of Stockholders to be held on [•], 2023 [•] AM Eastern Time virtually at www.virtualshareholdermeeting.com/AXLA2023SM and any adjournment or postponement thereof. The stockholder(s) acknowledge(s) receipt from the Company prior to the execution of the proxy of the Proxy Statement, and revokes any proxy heretofore given with respect to the Special Meeting.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.

Continued and to be signed on reverse side