U.S. SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No. _____)

File	Filed by the Registrant ⊠					
File	Filed by a Party other than the Registrant □					
Ch	eck the appropriate box:					
	Preliminary Proxy Statement					
	Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))					
\boxtimes	Definitive Proxy Statement					
	Definitive Additional Materials					
	Soliciting Material under §240. Rule 14a-12					
	Applied Therapeutics, Inc.					
	Applied Therapeutics, Inc. (Name of Registrant as Specified in its Charter)					
	(Name of Person(s) Filing Proxy Statement, if other than the Registrant)					
Pay	Payment of Filing Fee (Check all boxes that apply):					
\boxtimes	No fee required					
	Fee paid previously with preliminary materials					
	Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11					



545 Fifth Avenue, Suite 1400 New York, NY 10017

September 9, 2022

Dear Stockholder:

You are cordially invited to attend Applied Therapeutics, Inc.'s Special Meeting of Stockholders on Wednesday, October 26, 2022, at 10:30 a.m., Eastern Time, online at http://www.virtualshareholdermeeting.com/APLT2022SM. The Special Meeting of Stockholders will be held in a virtual-only meeting format.

The matters to be acted on at the Special Meeting of Stockholders are described in the enclosed notice and proxy statement.

We realize that you may not be able to attend the Special Meeting of Stockholders and vote your shares at the meeting. However, regardless of your meeting attendance, we need your vote. We urge you to ensure that your shares are represented by voting in advance of the meeting on the Internet or via a toll-free telephone number, as instructed in the Notice of Internet Availability of Proxy Materials, or if you have elected to receive a paper or email copy of the proxy materials, by completing, signing and returning the proxy card that is provided. If you decide to attend the Special Meeting of Stockholders, you may revoke your proxy at that time and vote your shares at the meeting.

Please remember that this is your opportunity to voice your opinion on matters affecting the Company. We look forward to receiving your proxy.

Sincerely,

Shoshana Shendelman, Ph.D.

Chair of the Board, President, Chief Executive Officer and Secretary



545 Fifth Avenue, Suite 1400 New York, NY 10017

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON WEDNESDAY, OCTOBER 26, 2022

You are cordially invited to attend the 2022 Special Meeting of Stockholders (the "Special Meeting") of Applied Therapeutics, Inc. (the "Company") to be held on Wednesday, October 26, 2022, at 10:30 a.m., Eastern Time, online at http://www.virtualshareholdermeeting.com/APLT2022SM. The Special Meeting of Stockholders will be held in a virtual-only meeting format.

At the Special Meeting, stockholders will be invited to consider and vote upon the following matters:

- 1. To approve an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of our common stock authorized for issuance from 100,000,000 shares to 200,000,000 shares (the "Authorized Shares Increase Proposal");
- 2. To authorize the adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are insufficient votes in favor of the Authorized Shares Increase Proposal; and
- 3. Any other matter that properly comes before the Special Meeting or any adjournment or postponement thereof

The foregoing items of business are more fully described in the proxy statement accompanying this Notice of Special Meeting of Stockholders.

The board of directors has fixed the close of business on September 6, 2022 as the record date for the determination of stockholders entitled to notice of, and to vote at, the Special Meeting and any adjournment or postponement thereof. A list of stockholders entitled to vote at the Special Meeting will be available for examination during ordinary business hours for 10 days prior to the Special Meeting at our principal executive office at 545 Fifth Avenue, Suite 1400, New York, NY 10017. Your vote is very important to the Company and all proxies are being solicited by the board of directors. So, whether or not you plan on attending the Special Meeting, we encourage you to submit your proxy as soon as possible (i) by accessing the Internet site or by calling the toll-free number described in the proxy materials; or (ii) by signing, dating and returning a proxy card or instruction form provided to you. By submitting your proxy promptly, you will save the Company the expense of further proxy solicitation. Please note that all votes cast by telephone or on the Internet must be cast prior to 11:59 p.m., Eastern Time, on October 25, 2022.

By Order of the Board of Directors,

Shoshana Shendelman, Ph.D.

Chair of the Board, President, Chief Executive Officer and Secretary

New York, New York September 9, 2022

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545 Fifth Avenue, Suite 1400 New York, NY 10017

PROXY STATEMENT

INFORMATION ABOUT THE SPECIAL MEETING AND PROXY MATERIALS

General

This proxy statement is furnished to stockholders of Applied Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the solicitation of proxies for use at the Special Meeting of Stockholders of the Company (the "Special Meeting") to be held on Wednesday, October 26, 2022, at 10:30 a.m., Eastern Time, online at http://www.virtualshareholdermeeting.com/APLT2022SM. The Special Meeting of Stockholders will be held in a virtual-only meeting format. This solicitation of proxies is made on behalf of our board of directors.

Important Notice of Availability of Proxy Materials for the Special Meeting to be Held on Wednesday, October 26, 2022

Pursuant to the rules adopted by the Securities and Exchange Commission ("SEC"), we have elected to provide access to our proxy materials over the Internet. Accordingly, we are sending a Notice of Internet Availability of Proxy Materials (the "Internet Notice") to certain of our stockholders of record. We are also sending a paper copy of the proxy materials and proxy card to other stockholders of record who have indicated they prefer receiving such materials in paper form. Brokers and other nominees who hold shares on behalf of beneficial owners will be sending their own similar Internet Notice. The Internet Notice, or this proxy statement and proxy card or voting instruction form, as applicable, is being mailed to our stockholders on or about September 9, 2022.

Stockholders will have the ability to access the proxy materials on the website referred to in the Internet Notice or may request to receive a paper copy of the proxy materials by mail or electronic copy by electronic mail on a one-time or ongoing basis. Instructions on how to request a printed copy by mail or electronically may be found on the Internet Notice.

The Internet Notice will also identify the date, the time and location of the Special Meeting; the matters to be acted upon at the meeting and the board of directors' recommendation with regard to each matter; a toll-free telephone number, an email address, and a website where stockholders can request to receive, free of charge, a paper or email copy of this proxy statement and a proxy card relating to the Special Meeting; information on how to access and vote the proxy card; and information on how to obtain instructions to attend the virtual meeting and vote at the virtual meeting, should stockholders choose to do so.

What Are You Voting On?

You will be asked to vote on the following proposals at the Special Meeting:

- To approve an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the number of shares of the Company's common stock, par value \$0.0001 per share (the "Common Stock"), authorized for issuance from 100,000,000 shares to 200,000,000 shares (the "Authorized Shares Increase Proposal");
- 2. To authorize the adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are insufficient votes in favor of the Authorized Shares Increase Proposal; and
- 3. Any other matter that properly comes before the Special Meeting or any adjournment or postponement thereof.

Who Can Vote?

Only holders of record of shares of our Common Stock as of the close of business on the record date, September 6, 2022 (the "Record Date"), are entitled to receive notice of, and to vote at, the Special Meeting. Each share of Common Stock entitles the holder thereof to one vote. Your shares of Common Stock may be voted at the Special Meeting, or any adjournment or postponement thereof, only if you are present in person at the virtual meeting or your shares are represented by a valid proxy.

Difference between a Stockholder of Record and a "Street Name" Holder

If your shares are registered directly in your name, you are considered the stockholder of record with respect to those shares.

If your shares are held in a stock brokerage account or by a bank, trust or other nominee, then the broker, bank, trust or other nominee is considered to be the stockholder of record with respect to those shares. However, you are still considered to be the beneficial owner of those shares, and your shares are said to be held in "street name." Street name holders generally cannot submit a proxy or vote their shares directly and must instead instruct the broker, bank, trust or other nominee how to vote their shares using the methods described below under the heading "Voting Your Shares."

Quorum

At the close of business on the Record Date, there were 48,020,712 shares of our Common Stock outstanding and entitled to vote at the Special Meeting. The presence of a majority of the outstanding shares of our Common Stock entitled to vote constitutes a quorum, which is required in order to hold and conduct business at the Special Meeting. Your shares are counted as present at the Special Meeting if you:

- Are present in person at the virtual Special Meeting; or
- · Have properly submitted a proxy card by mail or submitted a proxy by telephone or over the Internet.

If you submit your proxy, regardless of whether you abstain from voting on one or more matters, your shares will be counted as present at the Special Meeting for the purpose of determining a quorum. If your shares are held in "street name," your shares are counted as present for purposes of determining a quorum if your broker, bank, trust or other nominee submits a proxy covering your shares. Your broker, bank, trust or other nominee is entitled to submit a proxy covering your shares as to certain "routine" matters, even if you have not instructed your broker, bank, trust or other nominee on how to vote on those matters. Please see below under "— Broker Non-Votes."

Voting Your Shares

The Special Meeting will be held entirely online. You may vote in person by attending the virtual Special Meeting or by submitting a proxy. The method of voting by proxy differs (1) depending on whether you are viewing this proxy statement on the Internet or receiving a paper copy and (2) for shares held as a record holder and shares held in "street name."

If you are a record holder, you may vote by submitting a proxy over the Internet or by telephone by following the instructions on the website referred to in the proxy card or the Internet Notice mailed to you. Alternatively, if you received a paper copy of your proxy card, you may vote your shares by submitting a proxy over the Internet or by telephone by following the instructions on the proxy card, or by completing, dating and signing the proxy card that was included with this proxy statement and promptly returning it in the pre-addressed, postage-paid envelope provided to you.

If your shares are held in "street name," your broker, bank or other street name holder will provide you with instructions that you must follow to have your shares voted.

Deadline for Submitting Your Proxy on the Internet or by Telephone

Internet and telephone voting will close at 11:59 p.m., Eastern Time, on October 25, 2022. Stockholders who submit a proxy by Internet or telephone need not return a proxy card or the voting instruction form forwarded by your broker, bank, trust or other nominee by mail.

YOUR VOTE IS VERY IMPORTANT. Please submit your vote in advance even if you plan to attend the Special Meeting.

Voting at the Special Meeting

If you plan to attend the Special Meeting, you may vote during the virtual meeting. Please note that if your shares are held in "street name" and you wish to vote during the meeting, you must obtain a proxy issued in your name from your broker, bank or other street name holder. Even if you intend to attend the Special Meeting, we encourage you to submit your proxy or voting instructions to vote your shares in advance of the Special Meeting. Please see the important instructions and requirements below under "—Attendance at the Special Meeting."

Changing Your Vote

As a stockholder of record, if you vote by proxy, you may revoke that proxy at any time before it is voted at the Special Meeting. Stockholders of record may revoke a proxy prior to the Special Meeting by (i) delivering a written notice of revocation to the attention of the Secretary of the Company at our principal executive office at 545 Fifth Avenue, Suite 1400, New York, NY 10017, (ii) duly submitting a later-dated proxy over the Internet, by mail, or if applicable, by telephone, or (iii) attending the virtual Special Meeting and voting during the meeting. Attendance at the Special Meeting will not, by itself, revoke a proxy.

If your shares are held in the name of a broker, bank, trust or other nominee, you may change your voting instructions by following the instructions of your broker, bank, trust or other nominee.

If You Receive More Than One Proxy Card or Internet Notice

If you receive more than one proxy card or Internet Notice, it means you hold shares that are registered in more than one account. To ensure that all of your shares are voted, sign and return each proxy card or, if you submit a proxy by telephone or the Internet, submit one proxy for each proxy card or Internet Notice you receive.

How Your Shares Will Be Voted

Shares represented by proxies that are properly executed and returned, and not revoked, will be voted as specified. YOUR VOTE IS VERY IMPORTANT.

If You Do Not Specify How You Want Your Shares Voted

If you are the record holder of your shares and submit your proxy without specifying how your shares are to be voted, your shares will be voted as follows:

- FOR the Authorized Shares Increase Proposal; and
- FOR the adjournment of the meeting, if necessary, to solicit additional proxies if there are insufficient votes in favor of the Authorized Shares Increase Proposal.

In addition, the proxy holders named in the proxy are authorized to vote in their discretion on any other matters that may properly come before the Special Meeting and at any adjournment or postponement thereof. The board of directors knows of no other items of business that will be presented for consideration at the Special Meeting other than those described in this proxy statement.

Broker Non-Votes

A "broker non-vote" occurs when a nominee holding shares for a beneficial owner has not received voting instructions from the beneficial owner and does not have discretionary authority to vote the shares. If you hold your shares in street name and do not provide voting instructions to your broker or other nominee, your shares will be considered to be broker non-votes and will not be voted on any proposal on which your broker or other nominee does not have discretionary authority to vote. Shares that constitute broker non-votes, if any, will be counted as present at the Special Meeting for the purpose of determining a quorum. Brokers generally have discretionary authority to vote on Proposals 1 and 2.

Votes Required

The following table summarizes the voting requirements and the effects of broker non-votes and abstentions on each of the proposals to be voted on at the Special Meeting:

Proposals	Required Vote	Effect of Broker Non-Votes, If Any	Effect of Abstentions			
Approval of the Authorized Shares Increase Proposal	Majority of the outstanding shares entitled to vote at the Special Meeting	Against Against				
Authorization of the adjournment of the Special Meeting, if necessary	Majority of the shares present in person, including by remote communication, or represented by proxy	Against	Against			

Inspector of Election

All votes will be tabulated by the inspector of election appointed for the Special Meeting, who will separately tabulate affirmative and negative votes, abstentions and broker non-votes.

Solicitation of Proxies

We will bear the cost of soliciting proxies. Copies of solicitation materials will be furnished to banks, brokerage houses, fiduciaries and custodians holding shares of our Common Stock in their names that are beneficially owned by others to forward to those beneficial owners. We may reimburse persons representing beneficial owners for their costs of forwarding the solicitation materials to the beneficial owners. Original solicitation of proxies may be supplemented by telephone, facsimile, electronic mail or personal solicitation by our directors, officers or other employees. No additional compensation will be paid to our directors, officers or other employees for such services. In addition, we have engaged Alliance Advisors, LLC to assist us in the solicitation of proxies, and the anticipated cost of such engagement is approximately \$10,000.

Attendance at the Special Meeting

You may attend the Special Meeting, as well as vote and submit questions during the Special Meeting, by visiting http://www.virtualshareholdermeeting.com/APLT2022SM. You will need your unique control number, which appears in the Internet Notice, the proxy card or voting instructions that accompanied the proxy materials. In the event that you do not have a control number, please contact your broker, bank or other nominee as soon as possible so that you can be provided with a control number and gain access to the meeting.

Multiple Stockholders Sharing the Same Address

In order to reduce printing and postage costs, we may deliver only one Notice of Internet Availability of Proxy Materials or, if applicable, one Proxy Statement to multiple stockholders sharing a mailing address. This delivery method, called "householding," will not be used if we receive contrary instructions from one or more of the stockholders sharing a mailing address. If your household has received only one copy, we will promptly deliver a separate copy of the Notice of Internet Availability of Proxy Materials or, if applicable, Proxy Statement to any stockholder who sends a written request to the Corporate Secretary at 545 Fifth Avenue, Suite 1400 New York, New York 10017. If you own shares of Common Stock through a bank, broker or other nominee and receive more than one Proxy Statement, contact the holder of record to eliminate duplicate mailings.

PROPOSAL 1 — APPROVAL OF AMENDMENT TO AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

Proposal

Our board of directors has unanimously approved, declared advisable and recommended that our stockholders approve an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the Company's authorized number of shares of Common Stock from 100,000,000 to 200,000,000 shares (the "Charter Amendment"). If our stockholders approve this proposal, then Article IV.A of our Amended and Restated Certificate of Incorporation will be deleted and replaced in its entirety to read as follows:

A. The Corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the Corporation is authorized to issue is two hundred ten million (210,000,000) shares. Two hundred million (200,000,000) shares shall be Common Stock, each having a par value of one-hundredth of one cent (\$0.0001) and ten million (10,000,000) shares shall be Preferred Stock, each having a par value of one-hundredth of one cent (\$0.0001).

We are currently authorized to issue two classes of stock, denominated as common stock and preferred stock, consisting of 100,000,000 shares of Common Stock, and 10,000,000 shares of preferred stock, \$0.0001 par value per share (the "Preferred Stock"). We have no shares of Preferred Stock outstanding. As of September 6, 2022, of the 100,000,000 shares of Common Stock authorized for issuance: (i) 48,020,712 shares were issued and outstanding; (ii) 7,298,599 shares are reserved for issuance under our equity incentive plans; and (iii) 38,375,618 shares are reserved for issuance upon exercise of outstanding warrants. Accordingly, as of September 6, 2022, the Company had only 6,305,071 shares of Common Stock authorized but unissued or unreserved.

The additional Common Stock to be authorized by adoption of the Charter Amendment would have rights identical to the currently outstanding Common Stock. Although at present the board of directors has not approved any plans or proposals to issue any of the additional shares of our Common Stock that would become authorized for issuance if the Charter Amendment is approved, the board of directors desires to have the shares of Common Stock available to provide additional flexibility to use our Common Stock for financing and business purposes in the future. Adoption of the Charter Amendment and issuance of the Common Stock would not affect the rights of the holders of currently outstanding Common Stock of the Company, except for, with respect to the issuance of additional shares, effects incidental to increasing the number of shares of our Common Stock outstanding, such as dilution of the earnings per share, if any, and voting rights of current holders of our Common Stock. If the Charter Amendment is adopted, it will become effective upon filing of a Certificate of Amendment of the Company's Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware.

Unless further stockholder approval is required for a proposed issuance of additional shares by the rules of the Nasdaq Stock Market or other applicable laws or regulations, the additional shares of Common Stock may be used for various purposes without further stockholder approval. These purposes may include: raising capital; providing equity incentives to employees, officers and directors; establishing strategic relationships with other companies; expanding business or product lines through the acquisition of other businesses or products; and other purposes.

The additional shares of Common Stock that would become available for issuance if the Charter Amendment is adopted could also be used by the Company to oppose a hostile takeover attempt or to delay or prevent changes in control or management of the Company. For example, without further stockholder approval, the board of directors could strategically sell shares of Common Stock in a private transaction to purchasers who would oppose a takeover or favor the current board of directors. Although the Charter Amendment has been prompted by business and financial considerations and not by the threat of any hostile takeover attempt (nor is the board of directors currently aware of any such attempts directed at the Company), stockholders should be aware that approval of this proposal could facilitate future efforts by the Company to deter or prevent changes in control of the Company, including transactions in which the stockholders might otherwise receive a premium for their shares over then current market prices.

If the Charter Amendment is not approved by our stockholders, our financing alternatives will likely be limited by the lack of sufficient unissued and unreserved authorized shares of Common Stock, and stockholder

value may be harmed by this limitation. In addition, our future success depends upon our ability to attract, retain and motivate highly skilled scientific, commercial and managerial employees, and if the Charter Amendment is not approved by our stockholders, the lack of sufficient unissued and unreserved authorized shares of Common Stock to provide future equity incentive opportunities as the board of directors or the Compensation Committee thereof deems appropriate could adversely impact our ability to achieve these goals. In short, if our stockholders do not approve the Charter Amendment, we may not be able to access the capital markets, complete corporate collaborations, partnerships or other strategic transactions, attract, retain and motivate employees, and pursue other business opportunities integral to our growth and success.

Vote Required

The affirmative vote of the holders of a majority of the outstanding shares of our Common Stock entitled to vote on the Record Date will be required to approve the Charter Amendment to effect the authorized shares increase. As a result, abstentions and broker non-votes, if any, will have the same effect as "against" votes.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 1.

PROPOSAL 2 — AUTHORIZATION OF ADJOURNMENT OF THE SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES

Proposal

If at the Special Meeting, the number of shares of the Common Stock present or represented and voting in favor of the Authorized Shares Increase Proposal is insufficient to approve the proposal, our proxy holders may move to adjourn the Special Meeting in order to enable our board of directors to continue to solicit additional proxies in favor of the Authorized Shares Increase Proposal. In that event, you will be asked to vote only upon this adjournment proposal and not on any other proposals.

In this proposal, we are asking you to authorize the holder of any proxy solicited by our board of directors to vote in favor of adjourning the Special Meeting and any adjournments or postponements thereof, if necessary, to solicit additional proxies in favor of the Authorized Shares Increase Proposal, including the solicitation of proxies from stockholders that have previously voted against the proposal. Among other things, approval of the adjournment proposal could mean that, even if proxies representing a sufficient number of votes against the Authorized Shares Increase Proposal have been received, we could adjourn the Special Meeting without a vote on the Authorized Shares Increase Proposal and seek to convince the holders of those shares to change their votes to votes in favor of the approval of the Authorized Shares Increase Proposal.

If it is necessary to adjourn the Special Meeting, no notice of the adjourned meeting is required to be given to our stockholders, other than an announcement at the Special Meeting of the time and place to which the Special Meeting is adjourned, so long as the meeting is adjourned for 30 days or less and no new record date is fixed for the adjourned meeting. At the adjourned meeting, we may transact any business which might have been transacted at the original meeting.

Vote Required

Authorization of the adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are insufficient votes in favor of the Authorized Shares Increase Proposal requires the affirmative vote of a majority of those shares present in person or represented by proxy at the Special Meeting.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 2.

PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding beneficial ownership of our Common Stock as of September 6, 2022 by:

- Each person, or group of affiliated persons, known by us to beneficially own more than 5% of our Common Stock:
- Each of our directors;
- Each of our named executive officers; and
- All of our current executive officers and directors as a group.

The percentage ownership information is based on 48,020,712 shares of Common Stock outstanding as of September 6, 2022.

Information with respect to beneficial ownership has been furnished by each director, officer or beneficial owner of more than 5% of our Common Stock. We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of our Common Stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable within 60 days of September 6, 2022. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them. Except as otherwise noted below, the address for each person or entity listed in the table is Applied Therapeutics, Inc., 545 Fifth Avenue, Suite 1400, New York, New York 10017.

	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Greater than 5% Stockholders:		
Shoshana Shendelman, Ph.D. (1)	7,362,397	14.5%
Entities affiliated with Alexandria Venture (2)	10,265,245	20.0%
Franklin Resources, Inc. (3)	4,775,484	9.9%
Directors and Named Executive Officers:		
Les Funtleyder (4)	111,715	*
Stacy J. Kanter (5)	67,065	*
Teena Lerner, Ph.D. (6)	118,428	*
Joel S. Marcus (2)(7)	356,354	*
Riccardo Perfetti, M.D., Ph.D. (8)	536,774	1.1%
Charles Silberstein, M.D. (9)	_	*
Jay S. Skyler, M.D., MACP (10)	54,065	*
All current executive officers and directors as a group (eight persons) (11)	8,775,460	17.0%

^{*} Represents beneficial ownership of less than 1%.

⁽¹⁾ Dr. Shendelman is also a director and named executive officer. Includes (a) 364,286 shares of Common Stock held by Dr. Shendelman, (b) 88,397 shares held by Clearpoint Strategy Group LLC, of which Dr. Shendelman is the sole owner, (c) 1,492,094 shares of Common Stock held by Sycamore Family I LLC, of which Dr. Shendelman's spouse, Vladimir Shendelman, is the sole manager, (d) 1,750,000 shares held by Sycamore 2022 GRAT, over which Dr. Shendelman holds sole voting and dispositive power as the Investment Advisor, (e) 290,280 shares held by Ginko Family LLC, of which Dr. Shendelman is the sole manager, (f) 709,720 shares held by Vladimir Shendelman, Dr. Shendelman's spouse, and (g) 2,667,620 shares of Common Stock underlying outstanding options that are immediately exercisable or will be immediately exercisable within 60 days.

⁽²⁾ Based on a Schedule 13G/A filed by Alexandria Real Estate Equities, Inc. ("ARE"), Alexandria Venture Investments, LLC ("AVI") and Alexandria Equities No. 7, LLC ("AE7", and collectively with ARE and AVI, the "Alexandria Entities") on June 29, 2022, (i) AVI directly holds 4,555,077 shares of Common Stock, Pre-Funded Warrants (as defined in the Schedule 13G/A) exercisable for 885,000 shares of Common Stock (subject to the below), and Common Stock Warrants (as defined in the Schedule 13G/A and together with the Pre-Funded Warrants, the "Warrants") exercisable for 2,950,000 shares of Common Stock (subject to the below); and (ii) AE7 directly holds 2,378,977 shares of Common Stock, with Pre-Funded Warrants exercisable for 615,000 shares of Common Stock (subject

to the below), and Common Stock Warrants exercisable for 2,050,000 shares of Common Stock (subject to the below). Each of AVI and AE7 are indirect, wholly owned subsidiaries of ARE and, accordingly, ARE may be deemed to share voting and dispositive power with AVI and AE7 with respect to the shares reported herein. The share numbers set forth in this table represent the maximum number of shares issuable upon exercise of the Warrants held by the Alexandria Entities as a result of the beneficial ownership provision described in the following sentence. Under the terms of the Warrants, the Warrants may not be exercised to the extent such exercise would cause the holder (together with its affiliates, any other persons acting as a group together with the holder or any of the holder's for purposes of Section 13(d) or Section 16 of the Securities Exchange Act of 1934, as amended) to beneficially own more than 19,99% of the Common Stock outstanding immediately after giving effect to such exercise. Therefore, as of the Record Date, the Alexandria Entities collectively directly hold 6,934,054 shares of Common Stock, and the Warrants held by them are currently exercisable for an aggregate of 3,331,191 shares of our Common Stock. One of our directors, Joel S. Marcus, is the Executive Chairman and founder of Alexandria, the managing member of ARE-QRS Corp., which is the general partner of Alexandria Real Estate Equities L.P., which is the managing member of ARE-Special Services, LLC, which is the managing member of Alexandria Real Estate Equities. As Executive Chairman and founder of Alexandria, Mr. Marcus may be deemed to have voting and investment power with respect to the shares owned by the Alexandria Entities. North Euclid Avenue, Pasadena, California 91101.

- (3) Based on the Schedule 13G of Franklin Resources, Inc., filed with the SEC on July 8, 2022. According to the Schedule 13G, Franklin Advisers, Inc. has the sole power to vote 4,775,484 shares and the sole power to dispose of 4,775,484 shares. The address for Franklin Resources, Inc. is One Franklin Parkway, San Mateo, California 94403.
- (4) Includes 94,567 shares of Common Stock underlying outstanding options that are immediately exercisable or will be immediately exercisable within 60 days.
- (5) Includes 54,065 shares of Common Stock underlying outstanding options that are immediately exercisable or will be immediately exercisable within 60 days.
- (6) Includes 78,006 shares of Common Stock underlying outstanding options that are immediately exercisable or will become exercisable within 60 days.
- (7) Includes 40,994 shares of Common Stock underlying outstanding options that are immediately exercisable or will be immediately exercisable within 60 days.
- (8) Includes 472,265 shares of Common Stock underlying outstanding options that are immediately exercisable or will be immediately exercisable within 60 days.
- (9) Dr. Silberstein resigned as Chief Financial Officer effective January 28, 2022.
- (10) Includes 54,065 shares of Common Stock underlying outstanding options that are immediately exercisable or will be immediately exercisable within 60 days.
- (11) Includes an aggregate of 3,614,906 shares of Common Stock underlying outstanding options that are immediately exercisable or will be immediately exercisable within 60 days, held by eight executive officers and directors.

STOCKHOLDER PROPOSALS FOR 2023 ANNUAL MEETING

Submission of Stockholder Proposals for Inclusion in Next Year's Annual Meeting Proxy Statement

Any proposal or proposals by a stockholder intended to be included in the proxy statement and form of proxy relating to the 2023 Annual Meeting of Stockholders must be received by the Company no later than December 16, 2022 and must comply with the other proxy solicitation rules promulgated by the SEC and with the procedures set forth in the Company's Amended and Restated Bylaws (the "Bylaws"). Proposals should be sent to the Secretary of the Company at 545 Fifth Avenue, Suite 1400, New York, NY 10017. Nothing in this paragraph shall be deemed to require the Company to include in its proxy statement and proxy relating to the 2023 Annual Meeting of Stockholders any stockholder proposal which may be omitted from the proxy materials according to applicable regulations of the SEC in effect at the time the proposal is received.

Other Stockholder Proposals for Presentation at Next Year's Annual Meeting

A stockholder who wishes to submit a proposal or nominate a candidate to serve as a director for consideration at the 2023 Annual Meeting of Stockholders outside the processes of Rule 14a-8 under the Exchange Act and therefore will not be included in the proxy statement for such meeting must timely deliver a written notice in accordance with the requirements, including eligibility and information required in such notice, set forth in Section 5 of the Bylaws. To be timely, such written notice must be received by the Secretary of the Company at its principal executive offices, 545 Fifth Avenue, Suite 1400, New York, NY 10017, not earlier than the close of business on February 2, 2023, nor later than the close of business on March 4, 2023. In the event that next year's annual meeting is not scheduled to occur within 30 days of June 2, 2023 (the anniversary of the 2022 Annual Meeting), the written notice must be received (i) not earlier than the close of business on the 120th day prior to such annual meeting and (ii) not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made.

Universal Proxy Rules

To comply with the universal proxy rules, stockholders who intend to solicit proxies in support of director nominees other than the Company's nominees must provide notice that sets forth the information required by Rule 14a-19 under the Exchange Act no later than April 3, 2023.

OTHER MATTERS

The Company knows of no other matters to be submitted to the stockholders at the Special Meeting, other than the proposals referred to in this proxy statement. If any other matters properly come before the stockholders at the Special Meeting, it is the intention of the proxy holders to vote the shares represented thereby on such matters in accordance with their best judgment.

By Order of the Board of Directors,

Shoshana Shendelman, Ph.D.

Chair of the Board, President, Chief Executive Officer and Secretary

New York, New York September 9, 2022



APPLIED THERAPEUTICS, INC. 545 FIFTH AVENUE, SUITE 1400 NEW YORK, NY 10017



VOTE BY INTERNET - www.proxyvote.com or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information. Vote by 11:59 P.M. ET on October 25, 2022. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/APLT2022SM

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. Vote by 11:59 P.M. ET on October 25, 2022. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

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

OTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:						KEEP THIS PORTION FOR YOUR			
THIS PROXY CARD I	S VALID	ONLY WHI	EN SIGNED	AND DAT	ED. DETA	ICH AND RET	URN T	HIS POR	LION ON
The Board of Directors recommends you vote FOR the following proposals:							For	Against	Abstair
 To approve an amendment to the Company's Amended and Restat number of shares of the Company's common stock authorized f shares (the "Authorized Shares Increase Proposal"). 	ed Certific or issuance	cate of Incor e from 100,00	ooration to i 0,000 shares	ncrease the to 200,000,0	00		0	0	0
To authorize the adjournment of the Special Meeting, if nec insufficient votes in favor of the Authorized Shares Increa	essary, to se Proposal	solicit addi	tional proxie	s if there a	re		0	0	0
NOTE: To transact other business that may properly come before thereof.	the meeting	and any adj	ournment or p	ostponement					
Please sign exactly as your name(s) appear(s) hereon. When sign attorney, executor, administrator, or other fiduciary, please g title as such. Joint owners should each sign personally. All ho sign. If a corporation or partnership, please sign in full corp partnership name by authorized officer.	lders must								
Signature [PLEASE SIGN WITHIN BOX] Date		Signatu	re (Joint Ow	ners)	Date	,			

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

The Notice & Proxy Statement is available at www.proxyvote.com

APPLIED THERAPEUTICS, INC.

Special Meeting of Stockholders

October 26, 2022 10:30 AM EDT

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned hereby appoint(s) Dr. Shoshana Shendelman as proxy holder, with the power to appoint her substitute, and hereby authorize(s) her to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common Stock of APPLIED THERAPEUTICS, INC. that the undersigned is/are entitled to vote at the Special Meeting of Stockholders to be held at 10:30 AM, EDT on October 26, 2022, via live webcast at www.virtualshareholdermeeting.com/APLT2022SM, and any adjournment or postponement thereof.

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED BY THE STOCKHOLDER(S). IF NO SUCH DIRECTIONS ARE MADE, THIS PROXY WILL BE VOTED FOR PROPOSAL 1 AND FOR PROPOSAL 2.

Continued and to be signed on reverse side

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