UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

(Amendment No. ___)

 \boxtimes Filed by the Registrant

 \Box Filed by a party other than the Registrant

Check the appropriate box:

☑ Preliminary Proxy Statement

□ Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

□ Definitive Proxy Statement

Definitive Additional Materials

□ Soliciting Material under §240.14a-12

Aprea Therapeutics, Inc.

(Name of Registrant as Specified in Its Charter)

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

Payment of Filing Fee (Check the appropriate box):

⊠ No fee required.

□ Fee paid previously with preliminary materials.

Fee computed on table in exbibit required by Item 25(b) per Exchange Act Rules 14a6(i)(1) and 0-11

PRELIMINARY PROXY STATEMENT—SUBJECT TO COMPLETION



SPECIAL MEETING OF STOCKHOLDERS

To be Held on November 16, 2022

October , 2022

Dear Stockholder:

I am pleased to invite you to attend a special meeting of stockholders of Aprea Therapeutics, Inc., or Special Meeting, which will be held on Wednesday, November 16, 2022 at 9:00 a.m., Eastern Time. The Special Meeting will be held virtually via live webcast on the Internet. Stockholders will be able to attend the meeting, vote and submit questions via the Internet at www.virtualshareholdermeeting.com/APRE2022SM by using the 16-digit control number included in your proxy materials.

Details regarding admission to the Special Meeting and the business to be conducted are more fully described in the accompanying Notice of the Special Meeting of Stockholders and Proxy Statement. Other than the proposals described in the Proxy Statement, the Board of Directors is not aware of any other matters to be presented for a vote at the Special Meeting.

YOUR VOTE IS IMPORTANT. Whether or not you plan to attend the Special Meeting, we encourage you to review the proxy materials and submit your vote via the Internet, telephone or mail as soon as possible.

On behalf of the Board of Directors, I would like to express our appreciation for your ongoing support of Aprea Therapeutics.

Sincerely,

Oren Gilad Ph.D President and Chief Executive Officer

PRELIMINARY PROXY STATEMENT—SUBJECT TO COMPLETION



NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

Dear Stockholders:

You are invited to attend Aprea Therapeutics, Inc.'s Special Meeting of Stockholders (the "Special Meeting"). The Special Meeting will be held as a virtual meeting via live webcast on the Internet. At the Special Meeting, stockholders will be asked to vote:

- to approve the amendments to our Amended and Restated Certificate of Incorporation (our "Certificate of Incorporation"), to effect a reverse stock split at a ratio in the range of 1-for-3 and 1-for-20, inclusive (the "Reverse Stock Split"), with the exact ratio to be set within that range at the discretion of our Board of Directors before [February 28, 2023] without further approval or authorization of our stockholders and with our Board of Directors able to elect to abandon such proposed amendment and not effect the Reverse Stock Split authorized by stockholders, in its sole discretion (the "Reverse Stock Split Proposal");
- to approve the adjournment of the Special Meeting to a later date or dates, if necessary or appropriate, to solicit additional proxies if there are insufficient votes to adopt the Reverse Stock Split Proposal; and
- to transact any such other business that may properly come before the Special Meeting or any adjournment or postponement thereof.

MEETING INFORMATION:

Date:	November 16, 2022
Time:	9:00 a.m. Eastern Time
Virtual Location:	www.virtualshareholdermeeting.com/APRE2022SM
Record Date:	You can participate in the virtual special meeting and vote if you were a stockholder of record on October, 2022.

Your vote matters. Whether or not you plan to attend the virtual Special Meeting, please ensure that your shares are represented by voting promptly. Specific instructions on how to vote via the Internet, telephone or mail or virtually at the Special Meeting are described in the accompanying Proxy Statement.

By Order of the Board of Directors,

Scott M. Coiante *Corporate Secretary* October __, 2022

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE

SHAREHOLDER MEETING TO BE HELD ON NOVEMBER 16, 2022. This Notice of the Special Meeting and the accompanying Proxy Statement are available by visiting *http://www.proxyvote.com* using the 16-digit control number included in your proxy materials.

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PRELIMINARY PROXY STATEMENT—SUBJECT TO COMPLETION

Aprea Therapeutics, Inc.



535 Boylston Street Boston, Massachusetts 02116

PROXY STATEMENT FOR THE SPECIAL MEETING OF STOCKHOLDERS TO BE HELD VIRTUALLY ON NOVEMBER 16, 2022

INTRODUCTION

This Proxy Statement, the proxy card and the Notice of Special Meeting are being provided in connection with the solicitation of proxies by the Board of Directors (the "Board of Directors" or the "Board") of Aprea Therapeutics, Inc., a Delaware corporation ("Aprea," the "Company," "we," "us" or "our"), for use at the Company's Special Meeting of Stockholders (the "Special Meeting") to be held via live webcast at www.virtualshareholdermeeting.com/APRE2022SM on November 16, 2022 at 9:00 a.m., Eastern time as a virtual meeting, and any adjournments or postponements thereof.

The Special Meeting will be held in a virtual meeting format only. You will not be able to attend the Special Meeting in person. On or about October __, 2022, the Company will commence mailing of the proxy materials, which are also available at www.virtualshareholdermeeting.com/APRE2022SM. The proxy materials are being sent to stockholders who owned our common stock at the close of business on October __, 2022, the record date for the Special Meeting. Information contained on, or that can be accessed through, our website is not intended to be incorporated by reference into this Proxy Statement and references to our website address in this Proxy Statement are inactive textual references only. For additional details regarding the Special Meeting and voting generally, please refer to the section of this Proxy Statement entitled "General Information About the Special Meeting."

PROXY SUMMARY

To assist you in reviewing the proposals to be considered at the Special Meeting, we call your attention to the following proxy summary. This is only a summary; please review this Proxy Statement in full.

Summary of Stockholder Voting Matters

Proposal		Board of Directors Recommendation
Item 1: Approval of Reverse Stock Split Proposal	Page	✓ FOR
Item 2: Approval of Adjournment of Special Meeting Proposal	Page	✓ FOR

GENERAL INFORMATION ABOUT THE SPECIAL MEETING

Q: Who can vote at the Special Meeting?

A: Only stockholders of record of the Company's common stock, \$0.001 par value per share ("common stock") at the close of business on October __, 2022 (the "Record Date"), are entitled to receive notice of the Special Meeting and to vote their shares of our common stock that they held on that date at the Special Meeting. As of that date, [____] shares of our common stock were outstanding. Each share of common stock is entitled to one vote on each matter properly brought before the Special Meeting.

Q: What am I being asked to vote on?

- A: You are being asked to vote on two proposals:
 - *Proposal 1*: to approve the amendments to our Certificate of Incorporation, to effect the Reverse Stock Split at a ratio in the range of 1-for-3 to 1-for-20, inclusive, with the exact ratio to be set within that range at the discretion of our Board of Directors before [February 28, 2023];
 - *Proposal 2*: to approve the adjournment of the Special Meeting to a later date or dates, if necessary or appropriate, to solicit additional proxies if there are insufficient votes to adopt Proposal 1;

In addition, you are entitled to vote on any other matters that are properly brought before the Special Meeting.

Q: How do I vote?

A: Stockholder of Record – Shares Registered in Your Name

If you are a stockholder of record, you may vote in any of the following manners:



Mailing your signed proxy card or voter instruction card.



Using the Internet at www.proxyvote.com (have your proxy card or voting instruction card when you visit the website)



Calling toll-free at 1-800-690-6903 (have your proxy card or voting instruction card when you call).

Whether or not you plan to attend the Special Meeting, we urge you to vote promptly by mail, Internet, or telephone to ensure your vote is counted. The Internet and telephone voting facilities for eligible stockholders of record will close at 11:59 p.m. Eastern Time on November 15, 2022. Proxy cards submitted by mail must be received by the close of business on November 15, 2022 to be counted.

Beneficial Owner - Shares Registered in the Name of Broker, Bank of Other Nominee ("Street Name")

If your shares are held in a stock brokerage account or by a bank or other holder of record, you are considered the "beneficial owner" of those shares held in Street Name. The proxy materials have been forwarded to you by your broker, bank or other holder of record who is considered the stockholder of record of those shares. As the beneficial owner, you must follow the voting instructions provided by your broker, bank, or other holder of



record in order to instruct your broker, bank, or other holder of record on how to vote your shares by using the proxy card or voting instruction card included in the materials made available.

Voting During the Special Meeting

Both stockholders of record and beneficial owners will be able to vote during the Special Meeting by logging into www.virtualshareholdermeeting.com/APRE2022SM using the 16-digit control number included in your proxy materials. If you cast your vote prior to the Special Meeting, there is no need to vote again at the Special Meeting. Any vote cast during the Special Meeting will revoke a previously submitted proxy. Even if you plan to attend the virtual Special Meeting, we encourage you to vote in advance by mail, Internet or telephone so that your vote will be counted even if you later decide not to attend the Special Meeting.

Q: How does the Board of Directors recommend I vote on the Proposals?

- A: Our Board of Directors recommends that you vote:
 - FOR the amendments to our Certificate of Incorporation, to effect the Reverse Stock Split at a ratio in the range of 1-for-3 to 1-for-20, inclusive, with the exact ratio to be set within that range at the discretion of our Board of Directors ("Proposal 1"); and
 - FOR approval of the adjournment of the Special Meeting to a later date or dates, if necessary or appropriate, to solicit additional proxies if there are insufficient votes to adopt Proposal 1 ("Proposal 2").

Q: How will my shares be voted? Can I change my vote?

- A: In each case, your shares will be voted as you instruct. If you return a signed card, but do not provide voting instructions, your shares will be voted FOR each of the proposals. You may revoke or change your vote any time before the proxy is exercised. To do so, you must do one of the following:
 - Vote over the Internet or by telephone as instructed above. Only your latest Internet or telephone vote is counted.
 - Sign a new proxy card and submit it by mail, which must be received no later than the close of business on November 15, 2022. Only your latest dated proxy card will be counted.
 - Attend the virtual Special Meeting and vote during the meeting. Attending the virtual Special Meeting will not by itself revoke a previously granted proxy.
 - Give our Corporate Secretary written notice no later than the close of business on November 15, 2022 that you want to revoke your proxy.

If your shares are held in Street Name, you should follow the instructions provided by your broker, bank, or other holder of record to revoke previously submitted voting instructions.

Q: What is the deadline for voting?

The deadline for voting by mail is 11:59 p.m. Eastern Time on November 15, 2022. The deadline for voting by telephone or Internet prior to the Special Meeting is 11:59 p.m. Eastern Time on November 15, 2022. You may also vote during the virtual Special Meeting.

Q: What are "broker non-votes" and how many votes are needed to approve each proposal?

A: As the beneficial owner of shares held in Street Name, you may direct your broker, bank, or other holder of record on how to vote your shares by using the proxy card included in the materials made available or by

following their instructions for voting. A broker non-vote occurs when a broker or other nominee that holds shares for another does not vote on a particular item because the nominee does not have discretionary voting authority for that item and has not received instructions from the beneficial owner of the shares.

If you are a beneficial owner of shares held in Street Name and do not provide the organization that holds your shares with specific voting instructions then, under applicable rules, the organization that holds your shares may generally vote on "routine" matters (Proposal 1 and Proposal 2 in this Proxy Statement) but cannot vote on "non-routine" matters in this Proxy Statement.

The following table summarizes the vote required for and how broker non-votes and abstentions are treated with respect to our proposals:

Proposal	Votes Required	Treatment of Abstentions and Broker Non-Votes	Broker Discretionary Voting
Amendments to our Certificate of Incorporation, to effect the Reverse Stock Split	Majority of shares of common stock outstanding	Abstentions will count as a vote "against." Brokers or other nominees have discretionary voting authority on this item and, accordingly, there will not be any broker non-votes in determining the outcome of the proposal	Yes
Adjournment of the Special Meeting	Majority of votes represented by shares present in person or represented by proxy and entitled to vote thereon	Abstentions count as a vote "against"; broker non votes will have no effect on the outcome of the proposal (although no broker non- votes are expected)	Yes

Q: What is the quorum requirement?

A: We must have a quorum to conduct business at the Special Meeting. A quorum consists of the presence at the meeting, either virtually in person or represented by proxy, of the holders of a majority of the outstanding shares of our common stock entitled to vote. Shares present virtually during the Special Meeting will be considered shares of common stock represented in person at the meeting. For the purpose of establishing a quorum, abstentions and broker- non-votes are counted as shares represented toward the quorum. If there is no quorum, the holders of a majority of shares present at the meeting in person or represented by proxy or the chairman of the meeting may adjourn the meeting to another date.

Q: Who counts the votes?

A: We have asked [_____] to judge voting, be responsible for determining whether or not a quorum is present and tabulate votes cast by proxy or present virtually at the Special Meeting.

Q: Why are you holding a virtual Special Meeting?

A: To provide access to the Special Meeting for our stockholders regardless of geographic location, the Special Meeting will be held in a virtual meeting format only. We have designed our virtual format to ensure that our stockholders who attend the Special Meeting will be afforded similar rights and opportunities to participate as they would at an in-person meeting. The live webcast of the Special Meeting can be accessed by stockholders on the day of the meeting at www.virtualshareholdermeeting.com/APRE2022SM and a recording will be available for one year following the Special Meeting on the same website.

Q: How do I attend, vote shares and ask questions at the virtual Special Meeting?

A: To attend and participate in the virtual Special Meeting, stockholders will need to access the live webcast of the meeting. To do so, please visit www.virtualshareholdermeeting.com/APRE2022SM and use the 16-digit control number included on your proxy materials to log into the website. Instructions on how to connect to the Special Meeting and participate via the Internet, are posted at www.virtualshareholdermeeting.com/APRE2022SM. If you do not have your 16-digit control number, you will be able to access and listen to the Special Meeting as a guest but you will not be able to vote your shares or submit questions during the Special Meeting.

The Special Meeting will begin promptly at 9:00 a.m. Eastern Time. We encourage stockholders to login to the website and access the webcast before the Special Meeting's start time. Online check-in will begin, and stockholders may begin submitting written questions, at 8:45 a.m. Eastern Time, and you should allow ample time for check-in procedures.

You will be permitted to submit your questions during the meeting to be addressed by management during a question and answer session as time allows. Such questions must be confined to matters properly before the Special Meeting and of general company concern. Additional information regarding questions submitted during the meeting will be available in the rules of conduct for the meeting available at www.virtualshareholdermeeting.com/APRE2022SM.

Q: How can I get help if I have trouble checking in or listening to the meeting online?

We will have technicians ready to assist you with any technical difficulties you have accessing the virtual Special Meeting or submitting questions. If you encounter any difficulties accessing the virtual Special Meeting during check-in or during the meeting, please call the technical support number that will be posted on the virtual shareholder meeting login page.

Q: Who will bear the cost of soliciting votes for the Special Meeting?

A: The Company will bear all expenses of this solicitation, including the cost of preparing and providing these proxy materials. We may reimburse brokerage firms, custodians, nominees, fiduciaries, and other persons representing beneficial owners of common stock for their reasonable expenses in forwarding solicitation material to such beneficial owners. Our directors, officers, and employees may also solicit proxies in person or by other means of communication. We will not additionally compensate those directors, officers and employees but we may reimburse them for reasonable out-of-pocket expenses in connection with such solicitation.

Q: How can I know the voting results?

We plan to announce preliminary voting results at the 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 Special Meeting.

Q: Are stockholders entitled to any appraisal or similar rights of dissenters?

Our stockholders are not entitled to dissent and obtain appraisal of, or payment for, such stockholders' capital stock, under the General Corporation Law of the State of Delaware, our Certificate of Incorporation or Amended and Restated Bylaws (our "Bylaws"), with respect to any of the proposals to be considered at the Special Meeting.

Q: Will a stockholder list be available for inspection?

In accordance with Delaware law and our Bylaws, a list of stockholders entitled to vote at the Special Meeting will be available at the virtual Special Meeting at www.virtualshareholdermeeting.com/APRE2022SM and, for 10 days prior to the Special Meeting, at our corporate headquarters located at 535 Boylston Street, Boston,

Massachusetts 02116. If you would like to view the list during the 10 days prior to the Special Meeting, please contact the Company at stockholderinfo@aprea.com.

Our Board of Directors is soliciting your vote on matters that will be presented at the Special Meeting and at any adjournment or postponement thereof. This Proxy Statement contains information on these matters to assist you in voting your shares.

ITEMS TO BE VOTED ON

PROPOSAL 1: APPROVAL OF REVERSE STOCK SPLIT PROPOSAL

Background

Our Board of Directors has deemed it advisable, approved and is hereby soliciting stockholder approval of an amendment to our Certificate of Incorporation to effect the Reverse Stock Split of our outstanding common stock by combining outstanding shares of common stock into a lesser number of outstanding shares of common stock by a ratio in the range of 1-for-3 and 1-for-20, inclusive, at any time prior to [February 28, 2023], with the exact ratio to be set within this range by our Board of Directors at its sole discretion. Although we presently intend to effect the Reverse Stock Split to regain compliance with the Nasdaq Global Select Market's minimum bid price requirement, our Board of Directors may, alternatively, elect to abandon and not effect the Reverse Stock Split authorized by stockholders, in its sole discretion. Upon the effectiveness of the amendment to our Certificate of Incorporation effecting the Reverse Stock Split, the outstanding shares of our common stock will be reclassified and combined into a lesser number of shares (without reducing the number of authorized shares of our common stock) such that one share of our common stock will be issued for a specified number of shares in accordance with the ratio for the Reverse Stock Split selected by our Board of Directors.

If this Proposal 1 is approved by our stockholders as proposed, our Board of Directors would have the sole discretion to effect the amendment and Reverse Stock Split at any time prior to [February 28, 2023], and to fix the specific ratio for the Reverse Stock Split, provided that the ratio would be in the range of 1-for-3 and 1-for-20, inclusive. We believe that enabling our Board of Directors to fix the specific ratio of the Reverse Stock Split within the stated range will provide us with the flexibility to implement the split in a manner designed to maximize the anticipated benefits for our stockholders. The determination of the ratio of the Reverse Stock Split will be based on a number of factors, described further below under the heading "—Criteria to be Used for Decision to Apply the Reverse Stock Split."

The Reverse Stock Split, if approved by our stockholders, would become effective upon the filing of an amendment to our Certificate of Incorporation with the Secretary of State of the State of Delaware. The exact timing of the amendment will be determined by our Board of Directors based on its evaluation as to when such action will be the most advantageous to us and our stockholders, but the amendment will not occur on or after [February 28, 2023]. In addition, our Board of Directors reserves the right, notwithstanding stockholder approval and without further action by our stockholders, to abandon all amendments and the Reverse Stock Split if, at any time prior to the effectiveness of the filing of a certificate of amendment with the Delaware Secretary of State, our Board of Directors, in its sole discretion, determines that it is no longer in our best interest and the best interests of our stockholders to proceed.

Purpose of the Reverse Stock Split

Our primary objective in effectuating the Reverse Stock Split would be to attempt to raise the per-share trading price of our common stock to continue our listing on the Nasdaq Global Select Market. To maintain listing, the Nasdaq Global Select Market requires, among other things, that our common stock maintain a minimum closing bid price of \$1.00 per share. On [•], 2022, the closing bid price for our common stock on the Nasdaq Global Select Market was \$[•] per share.

On September 12, 2022, we received a deficiency letter from the Nasdaq Stock Market notifying the Company that, for the last 30 consecutive business days, the bid price for the Company's common stock had closed below the minimum bid price. In accordance with Nasdaq rules, the Company has been provided an initial period of 180 calendar days, or until March 13, 2023, to regain compliance. If the Company does not regain compliance by that date, the Company may be eligible for an additional 180 calendar day compliance period. To qualify, the Company would need to provide written notice of its intention to cure the deficiency during the additional compliance period, by effecting the Reverse Stock Split, if necessary, provided that it meets the continued listing requirement for the market value of publicly held shares and all other initial listing standards, with the exception of the minimum bid price requirement. If the Company does not

regain compliance with the minimum bid price rule by March 13, 2023, and is not eligible for an additional compliance period, Nasdaq will provide written notification to the Company that its common stock may be delisted.

Our Board is seeking stockholder approval for the authority to effectuate the Reverse Stock Split as a means of increasing the share price of our common stock at or above \$1.00 per share in order to avoid further action by Nasdaq, in the event we are not able to satisfy the minimum bid price requirement in adequate time before the deadline. We expect that the Reverse Stock Split would increase the bid price per share of our common stock above the \$1.00 per share minimum price, thereby satisfying this listing requirement. However, there can be no assurance that the Reverse Stock Split would have that effect, initially or in the future, or that it would enable us to maintain the listing of our common stock on the Nasdaq Global Select Market. We are not aware of any present efforts by anyone to accumulate our common stock, and the proposed Reverse Stock Split is not intended to be an anti-takeover device.

Additional purposes for effecting the Reverse Stock Split are to increase the per-share trading price of our common stock so as to:

- increase the acceptability of our common stock to long-term investors who may not find our shares attractive at their current prices due to the trading volatility often associated with stocks below certain prices;
- make our common stock eligible for investment by brokerage houses and institutional investors that have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers or by restricting or limiting the ability to purchase such stocks on margin; and
- make our common stock more attractive for investors who may be dissuaded from purchasing stocks below certain prices because the brokerage commissions, as a percentage of the total transaction value, tend to be higher for such low-priced stocks.

In evaluating the Reverse Stock Split, our Board of Directors has taken, and will take, into consideration negative factors associated with reverse stock splits. These factors include the negative perception of reverse stock splits held by many investors, analysts and other stock market participants, the possible adverse effect on liquidity that a reduced number of outstanding shares could cause, the costs associated with implementing a reverse stock split, as well as the fact that the stock price of some companies that have effected reverse stock splits has subsequently declined back to pre-reverse stock split levels. Our Board of Directors believes that these potential negative factors are significantly outweighed by the potential benefits.

The form of the proposed amendments to our Certificate of Incorporation to effect the Reverse Stock Split is attached as Appendix A to this proxy statement. Any amendment to our Certificate of Incorporation to effect the Reverse Stock Split will include the Reverse Stock Split ratio fixed by our Board of Directors, within the range approved by our stockholders.

Criteria to be Used for Decision to Apply the Reverse Stock Split

If our stockholders approve the Reverse Stock Split, our Board of Directors will be authorized to proceed with the Reverse Stock Split. The exact ratio of the Reverse Stock Split, within the 1-for-3 and 1-for-20, inclusive range, would be determined by our Board of Directors and publicly announced by us prior to the effective time of the Reverse Stock Split. In determining whether to proceed with the Reverse Stock Split and setting the appropriate ratio for the Reverse Stock Split, our Board of Directors will consider, among other things, factors such as:

- the historical trading prices and trading volume of our common stock;
- the number of shares of our common stock outstanding;

- the then-prevailing and expected trading prices and trading volume of our common stock and the anticipated impact of the Reverse Stock Split on the trading market for our common stock;
- the anticipated impact of a particular ratio on our ability to reduce administrative and transactional costs;
- business developments affecting us; and
- prevailing general market and economic conditions.

Reasons for the Reverse Stock Split

Regain Compliance with Nasdaq Rule.

We believe that the Reverse Stock Split will increase the bid price per share of our common stock above the \$1.00 per share minimum price, thereby satisfying the Nasdaq listing requirement.

Stock Price Volatility.

We believe that a higher stock price may increase the acceptability of our common stock to a number of long-term investors who may not find our shares attractive at their current prices due to the trading volatility often associated with stocks below certain prices.

Stock Price Requirements.

We understand that many brokerage houses and institutional investors have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers or by restricting or limiting the ability to purchase such stocks on margin.

Transaction Costs.

Investors also may be dissuaded from purchasing stocks below certain prices because the brokerage commissions, as a percentage of the total transaction value, tend to be higher for such low-priced stocks.

Certain Risks Associated with the Reverse Stock Split

We cannot assure you that the proposed Reverse Stock Split will result in an increase of our total market capitalization or our stock price. There can be no assurance that the total market capitalization of our common stock after the implementation of the Reverse Stock Split will be equal to or greater than the total market capitalization before the Reverse Stock Split or that the per share market price of our common stock following the Reverse Stock Split will increase in proportion to the reduction in the number of shares of our common stock outstanding in connection with the Reverse Stock Split. Also, we cannot assure you that the Reverse Stock Split would lead to a sustained increase in the trading price of our common stock may change due to a variety of other factors, including our ability to successfully accomplish our business goals, market conditions and the market perception of our business. You should also keep in mind that the implementation of the Reverse Stock Split does not have an effect on the actual or intrinsic value of our common stock decline after the proposed Reverse Stock Split, then the actual or intrinsic value of the shares of our common stock held by you will also proportionately decrease as a result of the overall decline in value.

The proposed Reverse Stock Split may decrease the liquidity of our common stock and result in higher transaction costs. Further, the liquidity of our common stock may be harmed by the proposed Reverse Stock Split given the reduced number of shares that would be outstanding after the Reverse Stock Split, particularly if the expected increase in stock price as a result of the Reverse Stock Split is not sustained. In addition, the proposed Reverse Stock Split may increase the number of stockholders who own odd lots (less than 100 shares) of our common stock, creating the potential for such

stockholders to experience an increase in the cost of selling their shares and greater difficulty effecting sales. If we effect the Reverse Stock Split, the resulting per-share stock price may nevertheless fail to attract institutional investors and may not satisfy the investing guidelines of such investors and, consequently, the trading liquidity of our common stock may not improve.

Even if the Reverse Stock Split is effected, there can be no assurance that we will continue to meet Nasdaq's continued listing requirements. Even if stockholders approve the Reverse Stock Split and the Reverse Stock Split is effected, there is no assurance that the market price per share will remain in excess of \$1.00, the minimum bid price requirements by Nasdag for continued listing, or that the Company would otherwise meet the Nasdaq listing requirements even if the per share market price of the common stock after the Reverse Stock Split meets the minimum bid price requirements. In addition to the minimum bid price deficiency, on August 15, 2022, we received a deficiency letter from Nasdaq notifying us that the Company's stockholders' equity as reported in our Quarterly Report on Form 10-Q for the period ended June 30, 2022 (the "Q2 2022 Form 10-Q") did not satisfy the continued listing requirement under Nasdag Listing Rule 5450(b)(1)(A), which requires that a listed company's stockholders' equity be at least \$10.0 million (the "Stockholder Equity Requirement"). As reported in the Q2 2022 Form 10-Q, the Company had a net stockholders' deficit of approximately \$35.8 million. The stockholders' deficit included acquired in-process research and development expense of approximately \$76.0 million associated with the Atrin acquisition for the period ended June 30, 2022. In addition, the value of the Company's Series A Convertible Preferred Stock (approximately \$68.8 million, as of June 30, 2022) was excluded from stockholder's equity as of June 30, 2022 because it had not yet converted to common stock at that time. The conversion of the Series A Convertible Preferred Stock into shares of common stock was approved by the Company's stockholders at the Company's annual meeting on July 28, 2022. Through September 29, 2022, holders of Series A Preferred Stock representing approximately 95.64% of the outstanding Series A Preferred Stock had elected to convert their Series A Preferred Stock into Common Stock. We believe the Stockholder Equity Requirement deficiency may be resolved with the conversion of the Series A Convertible Preferred Stock into shares of common stock.

Effect of the Reverse Stock Split

If the Reverse Stock Split Proposal is approved and our Board of Directors elects to effect the Reverse Stock Split, the number of outstanding shares of common stock will be reduced in proportion to the ratio of the split chosen by our Board of Directors. As of the effective time of the Reverse Stock Split, we would also adjust and proportionately decrease the number of shares of our common stock reserved for issuance upon exercise of, and adjust and proportionately increase the exercise price of, all options and RSUs, the number of shares of our common stock reserved for issuance upon exercise of other rights to acquire our common stock. In addition, as of the effective time of the Reverse Stock Split, we would adjust and proportionately decrease the total number of shares of our common stock that may be the subject of the future grants under our stock plans. As of the Record Date, we had outstanding [_____] shares of our Series A Preferred Stock. If we implement the Reverse Stock Split, the conversion ratio of our issued and outstanding Series A Preferred Stock would adjust and just proportionately to the ratio approved by the Board within the Split Ratio Range.

The Reverse Stock Split would be effected simultaneously for all outstanding shares of our common stock. The Reverse Stock Split would affect all of our stockholders uniformly and would not change any stockholder's percentage ownership interest in our company, except to the extent that the Reverse Stock Split results in any of our stockholders owning fractional shares. We will not issue any fractional shares as a result of the Reverse Stock Split and in lieu thereof any stockholders that would otherwise be entitled to receive a fractional share will be entitled to a cash payment as set forth below. The Reverse Stock Split would not change the terms of our common stock. The Reverse Stock Split is not intended as, and would not have the effect of, a "going private transaction" covered by Rule 13e-3 under the Exchange Act. Following the Reverse Stock Split, we would continue to be subject to the periodic reporting requirements of the Exchange Act.

Effect of the Reverse Stock Split on Legal Ability to Pay Dividends

We currently intend to retain all available funds and any future earnings to fund the development and growth of our business and to repay indebtedness, and therefore we do not anticipate declaring or paying any cash dividends on our

common stock in the foreseeable future. We are not in arrears on any dividends, and we do not believe that the Reverse Stock Split would have any effect with respect to future distributions, if any, to holders of our common stock.

Interests of Aprea's Directors and Executive Officers in the Reverse Stock Split

Our Directors and executive officers have no substantial interests, directly or indirectly, in the matters set forth in the Reverse Stock Split Proposal, except to the extent of their ownership of shares of our common stock and securities convertible or exercisable for our common stock, which shares and securities would be subject to the same proportionate adjustment in accordance with the terms of the Reverse Stock Split as all other outstanding shares of our common stock and securities convertible into or exercisable for our common stock.

Authorized Shares of Common Stock

We are currently authorized under our Certificate of Incorporation to issue up to a total of 440,000,000 shares of capital stock, comprised of 400,000,000 shares of common stock and 40,000,000 shares of preferred stock, including [_____] shares of Series A Preferred Stock. While the Reverse Stock Split would decrease the number of outstanding shares of our common stock, it would not change the number of authorized shares under our Certificate of Incorporation. Consequently, the Reverse Stock Split would have the effect of increasing the number of shares of common stock available for issuance under our Certificate of Incorporation. Our Board of Directors believes that such an increase is in our and our stockholders' best interests as it would provide us with greater flexibility to issue shares of common stock in connection with possible future financings, joint ventures and acquisitions as well as under our equity incentive plans and for other general corporate purposes. We do not currently have any plans, understandings, arrangements, commitments or agreements, written or oral, for the issuance of the additional shares of common stock that would become available for issuance if the Reverse Stock Split is effected, however we desire to have the shares available to provide us with additional flexibility to use our common stock for these business and financial purposes in the future.

By increasing the number of authorized but unissued shares of common stock, the Reverse Stock Split could, under certain circumstances, have an anti-takeover effect, although this is not the intent of our Board of Directors. For example, our Board of Directors might be able to delay or impede a takeover or transfer of control of our company by causing such additional authorized but unissued shares to be issued to holders who might side with our Board of Directors in opposing a takeover bid that the Board of Directors determines is not in the best interests of our company or our stockholders. The Reverse Stock Split could therefore have the effect of discouraging unsolicited takeover attempts. By potentially discouraging initiation of any such unsolicited takeover attempts the Reverse Stock Split could limit the opportunity for our stockholders to dispose of their shares at the higher price generally available in takeover attempts or that may be available under a merger proposal. The Reverse Stock Split could have the effect of permitting our current management, including our current Board of Directors, to retain its position, and place it in a better position to resist changes that stockholders may wish to make if they are dissatisfied with the conduct of our business. However, our Board of Directors is not aware of any attempt to take control of our company and the Board of Directors did not authorize the Reverse Stock Split with the intent that it be utilized as a type of anti-takeover device.

Procedure for Effecting the Reverse Stock Split

If our stockholders approve the Reverse Stock Split Proposal, and if our Board of Directors still believes that the Reverse Stock Split is in the best interests of us and our stockholders, our Board of Directors will determine the ratio of the Reverse Stock Split to be implemented and we will publicly announce the ratio selected by our Board of Directors and file with the Secretary of State of the State of Delaware the certificate of amendment reflecting such ratio to effect the Reverse Stock Split.

Beneficial Owners of Common Stock. Upon the implementation of the Reverse Stock Split, we would treat shares held by stockholders in street name in the same manner as shares held directly by stockholders of record. Banks, brokers, custodians or other nominees would be instructed to effect the Reverse Stock Split for their beneficial holders holding our common stock in street name. However, these banks, brokers, custodians or other nominees may have different procedures than our procedures for stockholders of record for processing the Reverse Stock Split and making payment for fractional shares. If a stockholder holds shares of our common stock with a bank, broker, custodian or other nominee

and has any questions in this regard, stockholders are encouraged to contact their bank, broker, custodian or other nominee.

Registered Holders of Common Stock. All of our registered holders of common stock hold their shares electronically in book-entry form with our transfer agent, Computershare. These stockholders do not hold physical stock certificates evidencing their ownership of our common stock. However, they are provided with a statement reflecting the number of shares of our common stock registered in their accounts. If a stockholder holds registered shares in book-entry form with our transfer agent, no action needs to be taken to receive post-Reverse Stock Split shares and any payment in lieu of fractional shares, if applicable, because the exchange and payment will be automatic.

Fractional Shares

The Reverse Stock Split would affect all of our stockholders uniformly and would not affect any stockholder's percentage ownership interests, except to the extent that the Reverse Stock Split results in such stockholder owning a fractional share. No fractional shares will be issued. As soon as practicable after the amendment to our Certificate of Incorporation is filed, Computershare would aggregate all fractional shares and arrange for them to be sold at the then prevailing prices on the open market on behalf of those stockholders who would otherwise be entitled to receive a fractional share. We expect that Computershare would cause the sale to be conducted in an orderly fashion at a reasonable pace and that it may take several days to sell all of the aggregated fractional shares of our common stock. After completing the sale, stockholders would receive a cash payment from Computershare in an amount equal to their pro rata shares of the total net proceeds of these sales. The proceeds would be subject to certain taxes as discussed below. In addition, stockholders would not be entitled to receive payment for the cashed-out shares. The payment amount would be paid to the stockholder in the form of a check in accordance with the procedures outlined below.

After the Reverse Stock Split, a stockholder would have no further interest in the Company with respect to such stockholder's cashed-out fractional shares. A person otherwise entitled to a fractional interest would not have any voting, dividend or other rights except to receive payment as described above.

The Reverse Stock Split would not affect the par value of our common stock per share, which would remain \$0.001 par value per share, while the number of outstanding shares of common stock would decrease in accordance with the Reverse Stock Split ratio. As a result, as of the effective time of the Reverse Stock Split, the stated capital attributable to common stock on our balance sheet would decrease and the additional paid-in capital account on our balance sheet would increase by an offsetting amount. Following the Reverse Stock Split, reported per share net income or loss would be higher because there would be fewer shares of common stock outstanding and we would adjust historical per share amounts set forth in our future financial statements.

Federal Income Tax Consequences

The following discussion is a summary of the material U.S. federal income tax consequences of the proposed Reverse Stock Split to U.S. Holders (as defined below) that hold shares of our common stock as capital assets for U.S. federal income tax purposes. This discussion is based upon current provisions of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), existing and proposed Treasury Regulations promulgated thereunder, current judicial decisions and administrative rulings, as of the date hereof, all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any such change may cause the U.S. federal income tax consequences of the proposed Reverse Stock Split to vary substantially from the consequences summarized below. We have not sought and will not seek any rulings from the Internal Revenue Service (the "IRS") regarding the matters discussed below and there can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the proposed Reverse Stock Split.

This summary does not address all aspects of U.S. federal income taxation that may be relevant to U.S. Holders in light of their particular circumstances or to stockholders who may be subject to special tax treatment under the Code, including, without limitation, dealers in securities, commodities or foreign currency, holders who are treated as non-U.S.

persons for U.S. federal income tax purposes, certain former citizens or long-term residents of the United States, insurance companies, tax-exempt organizations, banks, financial institutions, small business investment companies, regulated investment companies, holders who are S Corporations or other pass through entities, real estate investment trusts, retirement plans, holders whose functional currency is not the U.S. dollar, accrual method taxpayers subject to special tax accounting rules as a result of their use of financial statements, traders that mark-to-market their securities or persons who hold their shares of our common stock as part of a hedge, straddle, conversion or other risk reduction transaction. If a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) is the beneficial owner of our common stock, the U.S. federal income tax treatment of a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. Accordingly, partnerships (and other entities treated as partnerships for U.S. federal income tax purposes) holding our common stock and the partners in such entities should consult their own tax advisors regarding the U.S. federal income tax consequences of the proposed Reverse Stock Split to them.

This summary does not address any tax consequences other than certain U.S. federal income tax consequences of the Reverse Stock Split. The state and local tax consequences, alternative minimum tax consequences, non-U.S. tax consequences and U.S. estate and gift tax consequences of the proposed Reverse Stock Split are not discussed herein and may vary as to each U.S. Holder. Furthermore, the following discussion does not address any tax consequences of transactions effectuated before, after or at the same time as the proposed Reverse Stock Split, whether or not they are in connection with the proposed Reverse Stock Split. This discussion should not be considered as tax or investment advice, and the tax consequences of the Reverse Stock Split may not be the same for all stockholders. U.S. Holders should consult their own tax advisors to understand their individual federal, state, local and foreign tax consequences.

For purposes of this discussion, a "U.S. Holder" is a beneficial owner of our common stock that, for U.S. federal income tax purposes, is or is treated as (i) an individual who is a citizen or resident of the United States; (ii) a corporation (or any other entity or arrangement taxable as a corporation) created or organized under the laws of the United States or any subdivision thereof; (iii) an estate, the income of which is subject to U.S. federal income tax regardless of its source; or (iv) a trust if (1) its administration is subject to the primary supervision of a court within the United States and all of its substantial decisions are subject to the control of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code or (2) it has a valid election in effect under applicable U.S. Treasury regulations to be treated as a United States person.

THIS SUMMARY OF CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE PROPOSED REVERSE STOCK SPLIT IS FOR GENERAL INFORMATION ONLY AND IS NOT TAX ADVICE. EACH STOCKHOLDER IS URGED TO CONSULT WITH SUCH STOCKHOLDER'S OWN TAX ADVISOR WITH RESPECT TO THE TAX CONSEQUENCES OF THE PROPOSED REVERSE STOCK SPLIT.

Tax Consequences to U.S. Holders. A U.S. Holder generally should not recognize gain or loss upon the proposed Reverse Stock Split for U.S. federal income tax purposes, except with respect to cash received in lieu of a fractional share of our common stock, as discussed below. A U.S. Holder's aggregate adjusted tax basis in the shares of our common stock received pursuant to the proposed Reverse Stock Split should equal the aggregate adjusted tax basis of the shares of our common stock exchanged therefor (reduced by the amount of such basis that is allocated to any fractional share of our common stock). The U.S. Holder's holding period in the shares of our common stock exchanged therefor. U.S. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of shares of common stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares.

A U.S. Holder that, pursuant to the proposed Reverse Stock Split, receives cash in lieu of a fractional share of our common stock and whose proportionate interest in us is reduced (after taking into account certain constructive ownership rules) should generally recognize capital gain or loss in an amount equal to the difference, if any, between the amount of cash received and the portion of the U.S. Holder's aggregate adjusted tax basis in the shares of our common stock surrendered that is allocated to such fractional share. Such capital gain or loss will be short term if the pre-Reverse Stock Split shares were held for one year or less at the effective time of the Reverse Stock Split and long term if held for

more than one year. Long-term capital gains of individuals are subject to tax at reduced rates. A U.S. Holder that receives cash in lieu of a fractional share of our common stock pursuant to the Reverse Stock Split and whose proportionate interest in us is not reduced (after taking into account certain constructive ownership rules) should generally be treated as having received a distribution that will be treated first as dividend income to the extent paid out of our current or accumulated earnings and profits, and then as a tax-free return of capital to the extent of the U.S. Holder's tax basis in our common stock, with any remaining amount being treated as capital gain.

A U.S. Holder of our common stock may be subject to information reporting and backup withholding on cash paid in lieu of a fractional share in connection with the proposed Reverse Stock Split. A U.S. Holder of our common stock will be subject to backup withholding if such U.S. Holder is not otherwise exempt and such U.S. Holder does not provide its taxpayer identification number in the manner required or otherwise fails to comply with applicable backup withholding tax rules. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be refunded or allowed as a credit against a U.S. Holder's federal income tax liability, if any, provided the required information is timely furnished to the IRS. U.S. Holders of our common stock should consult their own tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption.

The U.S. federal income tax discussion set forth above does not discuss all aspects of U.S. federal income taxation that may be relevant to a particular stockholder in light of such stockholder's circumstances and income tax situation. Accordingly, we urge you to consult with your own tax advisor with respect to all of the potential U.S. federal, state, local and foreign tax consequences to you of the Reverse Stock Split.

Vote Required and Board of Directors Recommendation

Pursuant to the Delaware General Corporation Law, this proposal must be approved by the affirmative vote of a majority of the outstanding shares of our common stock. Abstentions with respect to this proposal will be counted for purposes of establishing a quorum and, if a quorum is present, will have the same practical effect as a vote against this proposal.

THE BOARD UNANIMOUSLY RECOMMENDS A VOTE FOR THE AMENDMENTS TO OUR CERTIFICATE OF INCORPORATION TO APPROVE THE REVERSE STOCK SPLIT PROPOSAL.

PROPOSAL 2: APPROVAL OF THE ADJOURNMENT OF THE SPECIAL MEETING TO A LATER DATE OR DATES, IF NECESSARY OR APPROPRIATE, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE INSUFFICIENT VOTES TO ADOPT PROPOSAL 1.

If at the Special Meeting, the number of votes represented by shares of the common stock present or represented and voting in favor of Proposal 1 is insufficient to approve the proposal or establish a quorum, our management may move to adjourn the Special Meeting in order to enable our Board of Directors to continue to solicit additional proxies in favor of Proposal 1.

In this proposal, we are asking our stockholders to authorize the holder of any proxy solicited by our Board of Directors to vote in favor of adjourning, postponing or continuing the Special Meeting and any later adjournments. If our stockholders approve the adjournment, postponement or continuation proposal, we could adjourn, postpone or continue the Special Meeting, and any adjourned session of the Special Meeting, to use the additional time to solicit additional proxies in favor of Proposal 1, including the solicitation of proxies from stockholders that have previously voted against the proposals. Among other things, approval of the adjournment, postponement or continuation proposal could mean that, even if proxies representing a sufficient number of votes against Proposal 1 have been received, we could adjourn, postpone or continue the Special Meeting without a vote on Proposal 1 and seek to convince the holders of those shares to change their votes to votes in favor of Proposal 1.



The affirmative vote of the majority of the votes represented by shares present in person or represented by proxy and entitled to vote thereon at the Special Meeting is required to approve the adjournment of the Special Meeting to a later date or dates, if necessary or appropriate, to solicit additional proxies if there are insufficient votes to adopt Proposal 1. Abstentions will be the equivalent of votes against this proposal and broker non-votes will not have an effect on the outcome of this proposal.

THE BOARD RECOMMENDS A VOTE FOR THE APPROVAL OF THE ADJOURNMENT OF THE SPECIAL MEETING TO A LATER DATE OR DATES, IF NECESSARY OR APPROPRIATE, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE INSUFFICIENT VOTES TO ADOPT PROPOSAL 1.



SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the beneficial ownership of common stock as of October ______. 2022, the Record Date, by (a) each person known by us to be the beneficial owner of more than 5% of the outstanding shares of common stock, (b) each named executive officer, (c) each director, and (d) all current executive officers and directors as a group.

The percentage of common stock outstanding is based on [_____] shares of our common stock outstanding as of the Record Date. For purposes of the table below, and in accordance with the rules of the SEC, we deem shares of common stock subject to options that are currently exercisable or exercisable within sixty days of the Record Date to be outstanding and to be beneficially owned by the person holding the options for the purpose of computing the percentage ownership of that person, but we do not treat them as outstanding for the purpose of computing the percentage ownership of any other person. Except as otherwise noted, each of the persons or entities in this table has sole voting and investing power with respect to all of the shares of common stock beneficially owned by them, subject to community property laws, where applicable.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage
5% or Greater Stockholders		
Oren Gilad, Ph.D. (1)	6,325,268	%
Marc Duey (2)	4,224,797	%
Named Executive Officers and Directors		
Oren Gilad, Ph.D. (1)	6,325,268	%
Marc Duey (2)	4,224,797	%
Christian S. Schade (3)	2,478,553	%
Scott M. Coiante (4)	805,528	%
Eyal C. Attar (5)	781,830	
Michael Grissinger (6)	72,638	*
John B. Henneman III (7)	56,367	*
Rifat Pamukcu, M.D. (8)	606,309	%
Richard Peters, M.D., Ph.D. (9)	34,360	*
Bernd R. Seizinger, M.D., Ph.D. (10)	346,930	%
All current executive officers and directors as a group (10 persons) (11)	15,272,067	%

* Less than 1%

- (1) Consists of (i) 6,274,114 shares of common stock and (ii) 51,154 shares of common stock issuable upon the exercise of stock options within 60 days of October __, 2022. Dr. Gilad's address is 535 Boylston Street, Boston, MA 02116.
- (2) Consists of (i) 4,161,594 shares of common stock held by Mr. Duey, (ii) 12,049 shares of common stock held by Mr. Duey's wife, and (iii) 51,154 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of October ___, 2022. Mr. Duey's address is 535 Boylston Street, Boston, MA 02116.
- (3) Consists of (i) 226,846 shares of common stock held by Mr. Schade, (ii) 5,000 shares of common stock held by Mr. Schade's spouse, (iii) 6,000 shares of common stock held by Mr. Schade's adult children, and (iv) 2,240,707 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of October __, 2022. Mr. Schade disclaims beneficial ownership of the shares held by his adult children.

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- (4) Consists of (i) 84,265 shares of common stock, and (ii) 721,263 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of October ___, 2022
- (5) Consists of (i) 57,233 shares of common stock held by Dr. Attar, (ii) 331 shares of common stock held by Dr. Attar's adult children and (iii) 724,266 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of October ____, 2022. Dr. Attar disclaims beneficial ownership of the shares held by his adult children.
- (6) Consists of 72,638 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of October ___, 2022.
- (7) Consists of 9,610 shares of common stock, and (ii) 46,757 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of October , 2022.
- (8) Consists of (i) 51,147 shares of common stock held by Dr. Pamukcu, (ii) 282,169 shares of common stock held by ZNZ Holdings LLC, of which Dr. Pamukcu serves as Managing Partner, and (iii) 272,993 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of October , 2022.
- (9) Consists of (i) 4,610 shares of common stock, and (ii) 29,750 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of October , 2022
- (10) Consists of (i) 318,580 shares of common stock, and (ii) 28,350 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of October __, 2022.
- (11) Consists of shares and stock options described in the applicable notes above.

SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

This proxy statement contains statements that are, or may be deemed, "forward looking statements," including, but not limited to, statements regarding our current intentions, beliefs, projections, outlook, analyses or current expectations. In some cases, these forward looking statements may be identified by the use of forward looking terminology, including the terms "believes," "estimates," "anticipates," "expects," "plans," "intends," "may," "designed," "would," "could," "might," "will," "should," or "approximately." They appear in a number of places throughout this proxy and include statements regarding our current intentions, beliefs, outlook, or current expectations concerning, among other things, our future stock price and compliance with listing standards.

By their nature, forward looking statements involve risks and uncertainties because they relate to future events; forward looking statements are not guarantees, or predictive, of future performance. 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. No representations or warranties (expressed or implied) are made about the accuracy of any such forward looking statements.

Any forward looking statements that we make in this proxy statement speak only as of the date of such statement, and we undertake no obligation to update such statements to reflect events or circumstances after the date of this proxy statement. You should also read carefully information in our most recent filings on Form 10-K and Form 10-Q, including the information contained under the caption "Risk Factors" and information in our consolidated financial statements and notes thereto to better understand significant risks and uncertainties inherent in our business and underlying any forward looking statements.

We qualify all of our forward looking statements by these cautionary statements. In addition, with respect to all of our forward looking statements, we claim the protection of the safe harbor for forward looking statements contained in the Private Securities Litigation Reform Act of 1995.

OTHER INFORMATION

HOUSEHOLDING OF SPECIAL MEETING MATERIALS

We have adopted a procedure approved by the SEC called "householding." Under this procedure, stockholders who have the same address and last name will receive only one copy of this proxy statement unless one or more of these stockholders notifies us that they wish to continue receiving individual copies. This procedure reduces printing costs, postage fees and the use of natural resources. Each stockholder who participates in householding will continue to be able to access or receive a separate proxy card upon request. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate set of our disclosure documents, or if you are receiving multiple copies and wish to receive only one copy, please contact us as follows:

> Aprea Therapeutics, Inc. 535 Boylston Street Boston, MA 02116 (617) 463-9385

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act and, therefore, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public on the SEC's website at www.sec.gov. The SEC's website contains reports, proxy and information statements and other information regarding issuers, such as us, that file electronically with the SEC. You may also read and copy any document we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the operation of its Public Reference Room.

DEADLINE FOR SUBMITTING SHAREHOLDER PROPOSALS

As disclosed in our definitive proxy statement on Schedule 14A for our 2022 annual meeting of stockholders, filed with the SEC on June 10, 2022, in order to be considered for inclusion in the proxy statement for our 2023 Annual Meeting of Stockholders, proposals submitted by stockholders pursuant to Rule 14a-8 under the Exchange Act must be received by us no later than February 10, 2023 and also must otherwise comply with the requirements set forth in Rule 14a-8.

Alternatively, stockholders intending to present a proposal or nominate a director for election at the 2023 Annual Meeting of Stockholders without having the proposal or nomination included in our Proxy Statement must comply with the requirements set forth in our Bylaws. Our Bylaws require, among other things, that our Corporate Secretary receive the proposal or nomination no earlier than the close of business on the 120th day, and no later than the close of business on the 90th day, prior to the first anniversary of the preceding year's Annual Meeting. Accordingly, for our 2023 Annual Meeting of Stockholders, our Corporate Secretary must receive the proposal or nomination no earlier than March 30, 2023 and no later than the close of business on April 29, 2023. The proposal or nomination must contain the information required by the Bylaws, a copy of which is available upon request to our Corporate Secretary. In addition to satisfying the requirements of our Bylaws, to comply with the universal proxy rules once effective, 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 May 29, 2023.

OTHER MATTERS

The Special Meeting is called for the purposes set forth in the Notice. Our Board of Directors does not know of any other matters to be considered by the stockholders at the Special Meeting other than the matters described in the Notice. However, the proxy card confers discretionary authority on the persons named in the proxy card with respect to matters that may properly come before the Special Meeting and that are not known to our Board of Directors at the date this proxy statement was printed. It is the intention of the persons named in the proxy card to vote in accordance with their best judgment on any such matter.



Appendix A

CERTIFICATE OF AMENDMENT TO AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF APREA THERAPEUTICS, INC.

Pursuant to Section 242 of the General Corporation Law of the State of Delaware

Aprea Therapeutics, Inc. (hereinafter called the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify as follows:

A resolution was duly adopted by the Board of Directors of the Corporation pursuant to Section 242 of the General Corporation Law of the State of Delaware setting forth an amendment to the Amended and Restated Certificate of Incorporation ("Certificate of Incorporation") of the Corporation and declaring said amendment to be advisable. The stockholders of the Corporation duly approved and adopted said proposed amendment in accordance with Section 242 of the General Corporation Law of the State of Delaware. The resolution setting forth the amendment is as follows:

RESOLVED: That the first paragraph of Article IV of the Certificate of Incorporation of the Corporation be and hereby is deleted in its entirety and the following two paragraphs are inserted in lieu thereof:

"4.1 Authorized Capital Stock. That, effective on the filing of this Certificate of Amendment to the Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware (the "Effective Time"), a one-for-[] reverse stock split of the Corporation's common stock, \$0.001 par value per share (the "Common Stock"), shall become effective, pursuant to which each [] shares of Common Stock outstanding and held of record by each stockholder of the Corporation (including treasury shares) immediately prior to the Effective Time shall be reclassified and combined into one validly issued, fully paid and nonassessable share of Common Stock automatically and without any action by the holder thereof upon the Effective Time and shall represent one share of Common Stock from and after the Effective Time (such reclassification and combination of shares, the "Reverse Stock Split"). The par value of the Common Stock following the Reverse Stock Split shall remain at \$0.001 per share. No fractional shares of Common Stock shall be issued in connection with the Reverse Stock Split. In lieu thereof, the aggregate of all fractional shares otherwise issuable to the holders of record of Common Stock shall be issued to the transfer agent, as agent for the accounts of all holders of record of Common Stock and otherwise entitled to have a fraction of a share issued to them. The sale of all of the fractional interests will be effected by the transfer agent as soon as practicable after the Effective Time on the basis of the prevailing market prices of the Common Stock at the time of the sale. After such sale, the transfer agent will pay to such holders of record their pro rata share of the total net proceeds derived from the sale of the fractional interests. Each stock certificate or book entry position that, immediately prior to the Effective Time, represented shares of Common Stock that were issued and outstanding immediately prior to the Effective Time shall, from and after the Effective Time, automatically and without the necessity of presenting the same for exchange, represent that number of whole shares of Common Stock after the Effective Time into which the shares formerly represented by such certificate or book entry position have been reclassified (as well as the right to receive cash in lieu of fractional shares of Common Stock after the Effective Time); provided, however, that each person of record holding a certificate or book entry position that represented shares of Common Stock that were issued and outstanding immediately prior to the Effective Time shall receive, upon surrender of such certificate or book entry position, a new certificate or book entry position evidencing and representing the number of whole shares of Common Stock after the Effective Time into which the shares of Common Stock formerly represented by such certificate or book entry position shall have been reclassified.

The total number of shares of all classes of stock which the Corporation shall have authority to issue is 440,000,000 shares, consisting of (i) 400,000,000 shares of Common Stock and (ii) 40,000,000 shares of Preferred Stock, \$0.001 par value per share ("Preferred Stock")."

IN WITNESS WHEREOF, the Corporation has caused its corporate seal to be affixed hereto and this Certificate of Amendment to be signed by its Chief Executive Officer this _____ day of ______, 202[2][3].

APREA THERAPEUTICS, INC.

By: _____

PRELIMINARY PROXY CARD - SUBJECT TO COMPLETION



535 BOYLSTON STREET BOSTON, MA 02116





VOTE BY INTERNET Before 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 11.55 p.m. Eastern Time the day before the cat-off date or meeting date. Have your prover and or voting instruction 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/APRE20225M

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 fourth-tone telephone to transmit your voting instructions up until 1159 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card or voting instruction card in hand when you call and then follow the instructions.

VOTE BY MAIL Mark, sign and date your prony 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 1373, Proxy cards submitted by mail must be received by the close of business on November 15, 2022 to be counted.

			ORTION FOR YOUR RECORD				
		THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.		RETURN THIS PORTION O			
EA THERAPEU	TICS, INC.						_
						<u> </u>	_
The Board of I	irectors recommend a vote	FOR Proposals 1 and 2.			For	Against	Abst
To appre	we the amendments to the o	ompany's amended and restated ce	rtificate of incorporation to effect a reverse stock split at a re	atio in the range			
of 1-for	3 and 1-for-20, inclusive with	the exact ratio to be set within that ation of the company's stockholders	t range at the discretion of the board of directors before Feb	ruary 28, 2023			
without	rurner approval or autionza	ation of the company's stockholders	6				
				and the second states of the s			
votes to	adopt Proposal 1.	pecial Meeting to a later date or dat	tes, if necessary or appropriate, to solicit additional proxies if	there are insumcient	-	-	
Please sign ex	actly as name(s) appear(s) he	reon. Joint owners should each sigr	n. When				
signing as att	rney, executor, administrations administration of the second seco	or, corporate officer, trustee, guar	dian, or				
currentini, pre	bite for the						

PRELIMINARY PROXY CARD - SUBJECT TO COMPLETION

The Special Meeting of Stockholders of Aprea Therapeutics, Inc. will be held on Wednesday, November 16, 2022, 9:00 A.M. Eastern Time, virtually via the internet at www.virtualshareholdermeeting.com/APRE2022SM

To access the virtual meeting, you must have the information that is printed in the shaded bar located on the reverse side of this form.

Important notice regarding the internet availability of proxy materials for the Special Meeting of Stockholders. The material is available at www.proxyvote.com

> Small steps make an impact. Help the environment by consenting to receive electronic delivery, sign up at www.envisionreports.com/APRE

Proxy – APREA THERAPEUTICS, INC. Special Meeting of Stockholders Proxy Solicited by Board of Directors for Special Meeting - November 16, 2022 Christian S. Schade and Scott M. Coiante, or any of them, each with the power of substitution, are hereby authorized to represent and vote the shares of the undersigned, with all the powers which the undersigned would possess if personally present, at the Special Meeting of Stockholders of Aprea Therapeutics, Inc. to be held on November 16, 2022, or at any postponement or adjournment thereof. Shares represented by this proxy will be voted as directed by the stockholder. If no such directions are indicated, the proxies will have authority to vote FOR Proposals 1 and 2. In their discretion, the proxies are authorized to vote upon such other business as may properly come before the meeting.

(Continued and to be signed on the reverse side)