UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A

(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT SCHEDULE 14A INFORMATION

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

Filed by the Registrant x

Filed by a Party other than the Registrant "

Check the appropriate box:

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

CELLECTAR BIOSCIENCES, 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):

- x No fee required.
- " Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
- " Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.

PRELIMINARY PROXY STATEMENT – SUBJECT TO COMPLETION

Cellectar Biosciences, Inc. 100 Campus Drive Florham Park, New Jersey 07932

Notice of Special Meeting of Stockholders To Be Held on October 25, 2023

TO OUR STOCKHOLDERS:

NOTICE IS HEREBY GIVEN that a special meeting of stockholders (the "Special Meeting") of Cellectar Biosciences, Inc. (the "Company") will be held on Wednesday, October 25, 2023 at 10:00 AM, local time, virtually over the internet. At the Special Meeting, you will be asked to vote on the following matters, as more fully described in the accompanying proxy materials:

- 1. to approve the potential issuance in excess of 19.99% of the Company's outstanding Common Stock upon the conversion of the Company's Series E-1 Convertible Preferred Stock, par value \$0.00001 per share (the "Series E-1 Preferred Stock"), Series E-2 Convertible Preferred Stock, par value \$0.00001 per share (the "Series E-2 Preferred Stock"), Series E-3 Convertible Preferred Stock, par value \$0.00001 per share (the "Series E-3 Preferred Stock, par value \$0.00001 per share (the "Series E-4 Preferred Stock, par value \$0.00001 per share (the "Series E-4 Preferred Stock") and, together with the Series E-1 Preferred Stock, the Series E-2 Preferred Stock and the Series E-3 Preferred Stock, the "Series E Preferred Stock"), at less than the "minimum price" under Nasdaq Listing Rule 5635(d), and which may be deemed a "change of control" under Nasdaq Listing Rule 5635(b) or any successor rule, pursuant to the terms of the Certificate of Designation of Preferences, Rights and Limitations of Series E Convertible Voting Preferred Stock (the "Series E Certificate of Designation") governing the Series E Preferred Stock (the "Issuance Proposal");
- to approve an amendment to the Company's Certificate of Incorporation to increase the total number of authorized shares of Company common stock from 160,000,000 shares to 170,000,000 shares (the "Amendment Proposal");

- 3. to approve the adjournment of the Special Meeting, if necessary, in the reasonable discretion of the Board, the Chairman of the Board, the President of the Company or the Corporate Secretary, to solicit additional proxies if there are insufficient votes at the time of the Special Meeting to approve the Issuance Proposal or the Amendment Proposal (the "Adjournment Proposal"); and
- 4. to transact other such business as may properly come before the Special Meeting or any adjournment or postponement thereof.

Our Board of Directors unanimously recommends that our stockholders vote <u>FOR</u> the Issuance Proposal, the Amendment Proposal and the Adjournment Proposal. Stockholders of record at the close of business on September 26, 2023 are entitled to notice of and to vote at the Special Meeting and any adjournment or postponement thereof. All stockholders are cordially invited to attend the Special Meeting.

YOUR VOTE IS IMPORTANT

Whether or not you plan to attend the Special Meeting, <u>please vote as promptly as possible</u>. If you receive more than one proxy card because your shares are registered in different names or addresses, please vote according to the instructions for each proxy card received to ensure that all of your shares are counted. Shares held by banks, brokers or other nominees on your behalf should be voted according to the instructions you receive from such parties. Prompt voting will save the expense involved in further communication.

You can find detailed information regarding voting in the section entitled "Questions and Answers About Proxy Materials and Voting" on page 5 of the accompanying proxy statement.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE SPECIAL MEETING OF STOCKHOLDERS TO BE HELD ON OCTOBER 25, 2023

The Company's Notice of Special Meeting and Proxy Statement are available on the internet at www.viewproxy.com/clrb/2023. These materials are also available at www.cellectar.com.

By order of the Board of Directors,

Chad J. Kolean, Secretary Florham Park, New Jersey

September [●], 2023

TABLE OF CONTENTS

GENERAL INFORMATION	1
RECORD DATE AND QUORUM REQUIREMENTS	2
QUESTIONS AND ANSWERS ABOUT PROXY MATERIALS AND VOTING	<u>3</u>
PROPOSAL ONE: ISSUANCE PROPOSAL	7
PROPOSAL TWO: AMENDMENT PROPOSAL	<u>12</u>
PROPOSAL THREE: ADJOURNMENT PROPOSAL	<u>14</u>
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	<u>15</u>
ADDITIONAL INFORMATION	<u>16</u>
APPENDIX A	<u>18</u>
FORM OF AMENDMENT TO SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF CELLECTAR BIOSCIENCES, INC.	<u>18</u>

PRELIMINARY PROXY STATEMENT – SUBJECT TO COMPLETION

Cellectar Biosciences, Inc. 100 Campus Drive Florham Park, New Jersey 07932

SPECIAL MEETING OF STOCKHOLDERS TO BE HELD ON OCTOBER 25, 2023

PROXY STATEMENT

GENERAL INFORMATION

This proxy statement is furnished to stockholders of Cellectar Biosciences, Inc., a Delaware corporation (the "Company," "we," "our" or "us"), in connection with the solicitation of proxies by our Board of Directors (our "Board") for use at a special meeting of stockholders to be held on October 25, 2023, and at any adjournment or postponement thereof (the "Special Meeting"). The Special Meeting will be held at 10:00 AM, local time, virtually over the internet. This proxy statement and the accompanying proxy card are first being made available to stockholders on or about October [•], 2023.

We will hold the Special Meeting as a virtual meeting held entirely over the internet. You will be able to attend the Special Meeting, vote your shares electronically and submit your questions online by visiting www.viewproxy.com/clrb/2023 and entering the 16-digit control number included in your proxy card or the voting instructions that accompanied these proxy materials. We believe that conducting the Special Meeting as a virtual meeting will encourage higher levels of stockholder participation.

These materials are also available at www.cellectar.com. Please note that information contained on our website does not constitute a part of, and is not incorporated by reference into, this proxy statement.

At the Special Meeting, our stockholders will be asked to vote on the following three proposals:

- 1. to approve the potential issuance in excess of 19.99% of the Company's outstanding Common Stock upon the conversion of the Company's Series E-1 Convertible Preferred Stock, par value \$0.00001 per share (the "Series E-1 Preferred Stock"), Series E-2 Convertible Preferred Stock, par value \$0.00001 per share (the "Series E-2 Preferred Stock"), Series E-3 Convertible Preferred Stock, par value \$0.00001 per share (the "Series E-3 Preferred Stock") and Series E-4 Convertible Preferred Stock, par value \$0.00001 per share (the "Series E-1 Preferred Stock, the Series E-2 Preferred Stock and the Series E-3 Preferred Stock, the "Series E-4 Preferred Stock" and, together with the Series E-1 Preferred Stock, the Series E-2 Preferred Stock and the Series E-3 Preferred Stock, the "Series E Preferred Stock"), at less than the "minimum price" under Nasdaq Listing Rule 5635(d) or any successor rule and which may be deemed a "change of control" under Nasdaq Listing Rule 5635(b) or any successor rule, pursuant to the terms of the Certificate of Designation of Preferences, Rights and Limitations of Series E Convertible Voting Preferred Stock (the "Series E Certificate of Designation") governing the Series E Preferred Stock (the "Issuance Proposal");
- 2. to approve an amendment to the Company's Certificate of Incorporation to increase the total number of authorized shares of Company common stock from 160,000,000 shares to 170,000,000 (the "Amendment Proposal");
- 3. to approve the adjournment of the Special Meeting, if necessary, in the reasonable discretion of the Board, the Chairman of the Board, the President of the Company or the Corporate Secretary, to solicit additional proxies if there are insufficient votes at the time of the Special Meeting to approve the Issuance Proposal or the Amendment Proposal (the "Adjournment Proposal"); and
- 4. to transact other such business as may properly come before the Special Meeting or any adjournment or postponement thereof.

1

RECORD DATE AND QUORUM REQUIREMENTS

The close of business on September 26, 2023 has been fixed as the record date (the "Record Date") for the determination of stockholders entitled to notice of and to vote at the Special Meeting. The presence at the Special Meeting, in person virtually or represented by proxy, of the holders of a majority of the shares of the Company's Common Stock and Series E Preferred Stock (on an as-converted to Common Stock basis, subject to the number of shares equal to 19.9% of the Company's outstanding Common Stock as of the date of the Securities Purchase Agreement (the "Cap")) issued and outstanding and entitled to vote at the Special Meeting will constitute a quorum for purposes of voting at the Special Meeting. Attendance at the Special Meeting, albeit virtual, constitutes presence in person for purposes of a quorum. Abstentions and broker non-votes are counted as present and entitled to vote for purposes of determining the existence of a quorum. As of the Record Date, the following shares are issued and outstanding:

- · [•] shares of our Common Stock;
- · 111.1111 shares of our Series D Preferred Stock; and
- · 1,225 shares of our Series E Preferred Stock that are convertible into an aggregate of 2,678,843 shares of Common Stock, after taking into account the Cap.

The Series D Preferred Stock is non-voting.

Holders of the Series E Preferred Stock are entitled to vote together with the Common Stock on an as-converted to Common Stock basis determined by dividing the Original Per Share Price (as defined in the Purchase Agreement) with respect to such shares of Series E Preferred Stock by the Voting Conversion Price (as defined in the Purchase Agreement). Holders of Series E Preferred Stock will be entitled to one vote for each whole share of Common Stock into which their Series E Preferred Stock is then-convertible on all matters submitted to a vote of stockholders. Unless and until stockholder approval is obtained for the Issuance Proposal, the number of shares of Common Stock that shall be deemed issued upon conversion of the Series E Preferred Stock (for purposes of calculating the number of aggregate votes the holders of Series E Preferred Stock are entitled to on an as-converted basis) will be equal to that number of shares equal to the Cap, with each such holder being able to vote the number of shares of Series E Preferred Stock held by it relative to the total number of shares of Series E Preferred Stock then outstanding multiplied by the Cap. Notwithstanding the foregoing, the holders of the Series E Preferred Stock are not entitled to vote on the Issuance Proposal.

The presence at the Special Meeting, in person virtually or represented by proxy, of the holders of a majority of the shares of the Company's Common Stock and Series E Preferred Stock (on an as-converted to Common Stock basis, subject to the Cap) issued and outstanding and entitled to vote at the Special Meeting will constitute a quorum for purposes of voting at the Special Meeting. Attendance at the Special Meeting, albeit virtual, constitutes presence in person for purposes of a quorum. Abstentions and broker non-votes are counted as present and entitled to vote for purposes of determining the existence of a quorum.

2

QUESTIONS AND ANSWERS ABOUT PROXY MATERIALS AND VOTING

Q. Why am I receiving these materials?

- A. Our Board is soliciting your proxy to vote at the Special Meeting. This proxy statement summarizes the information you need to vote at the Special Meeting. You do not need to attend the Special Meeting to vote your shares. Please see the procedures for voting your shares by mail, Internet or telephone on the enclosed proxy card and refer to the instructions in this proxy statement.
- Q. Who is entitled to vote at the Special Meeting, and how many votes do they have?

Only stockholders of record of our Common Stock and our Series E Preferred Stock at the close of business on the Record Date are entitled to notice of and to vote at the Special Meeting or any adjournment or postponement thereof but, in the case of the Series E Preferred Stock, subject to the application of the Cap.

Holders of Common Stock have one vote for each share of Common Stock held and holders of Series E Preferred Stock are entitled to vote with the holders of shares of Common Stock, and not as a separate class, on an as-converted to Common Stock basis, subject to the Cap. The Series E Preferred Stock is not entitled to vote on the Issuance Proposal.

As of the Record Date, there are [•] shares of our Common Stock outstanding and 1,225 shares of our Series E Preferred Stock that are convertible into an aggregate of 2,678,843 shares of Common Stock, after taking into account the Cap. Therefore, for purposes of the Amendment Proposal and the Adjournment Proposal, there are [•] shares entitled to vote as of the Record Date, consisting of all shares of Common Stock outstanding and all shares of Series E Preferred Stock on an as-converted to Common Stock basis, subject to the Cap. For purposes of the Issuance Proposal, there are [•] shares entitled to vote as of the Record Date, consisting of all shares of Common Stock outstanding.

Common Stock: Each share of our Common Stock outstanding as of the Record Date is entitled to one vote per share on all matters properly brought before the Special Meeting.

Series E Preferred Stock: Each share of our Series E Preferred Stock outstanding as of the Record Date has the right to vote on all matters presented to the stockholders for approval (other than the Issuance Proposal, as described herein), together with the shares of Common Stock, voting together as a single class, on an as-converted to Common Stock basis, based on a conversion price of \$1.82 per share and stated value of \$20,000 per share, subject to the Beneficial Ownership Limitation (as defined below). The voting of the Series E Preferred Stock is limited by the Series E Certificate of Designation, which provides that the Company shall not effect any conversion of the Series E Preferred Stock, and a holder of Series E Preferred Stock will not have the right to convert any portion of the Series E Preferred Stock, to the extent that, after giving effect to the conversion, the holder (together with its affiliates and any persons acting as a group together with the holder or any of the holder's affiliates) (such persons, "Attribution Parties"), would beneficially own in excess of the Beneficial Ownership Limitation. For purposes of determining the Beneficial Ownership Limitation, the number of shares of Common Stock beneficially owned by such holder and its affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Series E Preferred Stock with respect to which such determination is being made, but will exclude the number of shares of Common Stock which are issuable upon (i) conversion of the remaining, unconverted portion of Series E Preferred Stock beneficially owned by such holder or any of its affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company subject to a limitation on conversion or exercise analogous to the limitation contained in the certificate of designations, beneficially owned by such holder or any of its affiliates or Attribution Parties. To the extent that the Beneficial Ownership Limitation applies, the determination of whether the Series E Preferred Stock is convertible (in relation to other securities owned by such holder together with any affiliates and Attribution Parties) and of how many shares of Series E Preferred Stock are convertible is in the sole discretion of such holder. The Beneficial Ownership Limitation is 4.99% (or, upon written election by a holder which is delivered to the Company prior to the issuance of any shares of Series E Preferred Stock to such holder, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Series E Preferred Stock held by the applicable holder (the "Beneficial Ownership Limitation"). Additional Information regarding the Beneficial Ownership Limitation can be found in the Series E Certificate of Designation incorporated by reference as Exhibit 3.3 to the Company's Current Report on Form 8-filed on September 8, 2023.

3

Q. What proposals will be voted on at the Special Meeting?

- A. Stockholders will vote on the following at the Special Meeting:
 - 1. the Issuance Proposal;
 - 2. the Amendment Proposal;
 - 3. the Adjournment Proposal; and
 - 4. any other business that may properly come before the Special Meeting.

Q. How does our Board recommend that stockholders vote on the proposals?

A. Our Board recommends a vote **FOR** the approval of the Issuance Proposal, **FOR** the approval of the Amendment Proposal and **FOR** the approval of the Adjournment Proposal.

Q. What do I need for admission to the Special Meeting?

A. In order to attend the Special Meeting, you must register in advance at www.viewproxy.com/clrb/2023 prior to the deadline of 11:59 p.m. Eastern Time on October 22, 2023. Upon completing your registration, you will receive further instructions via email, including your unique link that will allow you to access the Special Meeting, vote online during the Special Meeting and will permit you to submit questions during the Special Meeting. You will also be permitted to submit questions at the time of registration. You may ask questions that are confined to matters properly presented at the Special Meeting. We will endeavor to answer as many questions submitted by stockholders as time permits at the Special Meeting. Further information regarding procedures for asking questions and rules of conduct for the meeting will be posted on the virtual meeting login page. A replay of our Special Meeting webcast will be available at https://www.cellectar.com/news-media/events and will remain there for one year.

The virtual meeting platform is fully supported across major web browsers and multiple device types. Participants should ensure that they have a strong internet connection wherever they intend to participate in the Special Meeting. Please allow ample time for online check-in, which will begin at 9:45 a.m., local time.

Q. What happens if there are technical difficulties during the Special Meeting?

A. We will have technicians ready to assist you with any technical difficulties you may have accessing the virtual Special Meeting, voting at the Special Meeting or submitting questions at the Special Meeting. If you encounter any difficulties accessing the virtual Special Meeting during the check-in or meeting time, please call the technical support number 1-866-612-8937 or e-mail virtualmeeting@viewproxy.com..

Q. Can I change my vote or revoke my proxy?

- A. You may change your vote or revoke your proxy at any time before it is voted at the Special Meeting. If you are a stockholder of record, you may change your vote or revoke your proxy by:
 - delivering a written notice of revocation of your proxy to the attention of the Secretary at the following address: 100 Campus Drive, Florham Park, New Jersey 07932:
 - delivering to us an authorized proxy bearing a later date (including a proxy over the Internet or by telephone); or

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 bank, broker or other nominee, you may change your vote by submitting new voting instructions to your bank, broker or other nominee, or as otherwise instructed by such bank, broker or nominee.

4

Q. What constitutes a quorum?

A. The presence at the Special Meeting, in person virtually or represented by proxy, of the holders of a majority of the shares of the Company's Common Stock and Series E Preferred Stock (on an as-converted to Common Stock basis, subject to the Cap) issued and outstanding and entitled to vote at the Special Meeting will constitute a quorum for purposes of voting at the Special Meeting. Attendance at the Special Meeting, albeit virtual, constitutes presence in person for purposes of a quorum. Shares voted FOR, AGAINST or ABSTAIN or properly executed proxy cards returned without voting instructions are counted as present for the purpose of determining whether a quorum is present.

Q. What vote is required to approve each Proposal and how are abstentions and broker non-votes treated?

A. Issuance Proposal. The Issuance Proposal must receive FOR votes from the holders of a majority of votes cast on the proposal. Abstentions and broker non-votes with respect to the Issuance Proposal will not be considered "votes cast" and so will have no effect on this proposal.

Amendment Proposal. The Amendment Proposal must receive **FOR** votes from the holders of a majority of votes cast on the proposal. Abstentions with respect to the Amendment Proposal will not be considered "votes cast" and so will have no effect on the proposal. Brokers will have discretionary authority to vote on this proposal. Accordingly, there will not be any broker non-votes on this proposal.

Adjournment Proposal. The Adjournment Proposal must receive **FOR** votes from the holders of a majority of votes cast on the proposal. Abstentions with respect to the Adjournment Proposal will not be considered "votes cast" and so will have no effect on the proposal. Brokers will have discretionary authority to vote on this proposal. Accordingly, there will not be any broker non-votes on this proposal.

Q. Will there be any broker non-votes?

A. Brokers holding shares of our common stock in street name for their customers are generally required to vote such shares in the manner directed by their customers. If their customers do not give any direction, brokers may vote such shares on "routine" matters but not on any "non-routine" matters. The Amendment Proposal and the Adjournment Proposal are matters we believe will be considered "routine" and, therefore, brokers will have discretionary authority to vote on these proposals and there will not be any broker non-votes. Brokers do not always exercise this discretionary authority, and if your broker does not (and you have not given any voting direction), your shares will not be voted. We believe the Issuance Proposal is a non-routine proposal and may not be voted upon by your broker in the absence of any instruction from you as to how you would like your shares to be voted. We strongly encourage you to submit your voting instructions to your broker to ensure your shares of common stock are voted in accordance with your instructions at the Special Meeting.

Q. What is the deadline for submitting a proxy?

A. To ensure that proxies are received in time to be counted prior to the Special Meeting, proxies submitted by Internet or by telephone should be received by [•] on the day of the Special Meeting (or if the Special Meeting is adjourned, by [•] on the day on which the Special Meeting is reconvened), and proxies submitted by mail should be received by the close of business on the day prior to the date of the Special Meeting.

If you hold your shares through a broker, please refer to your voting instruction card for instructions and applicable deadlines.

5

Q. What does it mean if I receive more than one full-set of proxy materials?

A. You may receive more than one set of voting materials, including multiple copies of this proxy statement and multiple proxy cards or voting instruction cards, if your shares are registered in more than one name or are registered in different accounts. For example, if you hold your shares in more than one brokerage account, you will receive a separate voting instruction card for each brokerage account in which you hold shares. Please complete, sign, date and return each proxy card and voting instruction card that you receive in order to cast a vote with respect to all of your Company shares.

Q. How will my shares be voted if I return a blank proxy card or a blank voting instruction card?

- A. If you are a holder of record of shares of our common stock and you sign and return a proxy card without giving specific voting instructions, your shares will be voted:
 - FOR the approval of the Issuance Proposal;
 - FOR the approval of the Amendment Proposal; and
 - FOR the approval of the Adjournment Proposal.

If you hold your shares in street name via a broker and return a signed but blank voting instruction card (and do not otherwise provide the broker with voting instructions), your shares will be counted as present for purposes of establishing a quorum and will be voted in accordance with the broker's discretion on the Amendment Proposal and the Adjournment Proposal, but will not be voted on any non-routine matters that are properly presented at the Special Meeting, such as the Issuance Proposal.

Our Board knows of no matter to be presented at the Special Meeting other than the Issuance Proposal, the Amendment Proposal and the Adjournment Proposal. If any other matters properly come before the Special Meeting upon which a vote properly may be taken, shares represented by all proxies received by us on the proxy card will be voted with respect thereto as permitted and in accordance with the judgment of the proxy holders.

Q. Where can I find the voting results of the Special Meeting?

A. The preliminary results of the voting on the proposals will be reported at the Special Meeting. We will publish the final results in a Current Report on Form 8-K filed with the SEC within four business days of the Special Meeting.

Q. Who is making this solicitation?

A. This proxy solicitation is being made on behalf of our Board. The Company has engaged Alliance Advisors, LLC, to assist in the solicitation of proxies and provide related advice and informational support, for a services fee, plus customary disbursements (not to exceed \$5,000 without our written approval) which are not expected to exceed \$65,000 in total.

Q. Who will bear the costs of this solicitation?

A. We will bear the entire cost of solicitation, including the preparation, assembly, printing and mailing of the full-set of proxy materials, including this proxy statement, the proxy card, and any additional solicitation materials we furnish to our stockholders. Copies of the Company's solicitation materials will be furnished to brokerage houses, fiduciaries and custodians holding shares in their names that are beneficially owned by others so that they may forward this solicitation material to such beneficial owners. Upon request, we will reimburse such persons for their costs in forwarding such solicitation materials to such beneficial owners.

Q. Will a stockholder list be available for inspection?

A. In accordance with Delaware law, a list of stockholders entitled to vote at the Special Meeting will be available at the Special Meeting virtually over the internet and, for 10 days prior to the Special Meeting, at our corporate headquarters located at 100 Campus Drive, Florham Park, New Jersey 07932.

6

PROPOSAL ONE: ISSUANCE PROPOSAL

APPROVE THE POTENTIAL ISSUANCE IN EXCESS OF 19.99% OF OUR OUTSTANDING COMMON STOCK UPON THE CONVERSION OF THE SERIES E PREFERRED STOCK AT LESS THAN THE "MINIMUM PRICE" UNDER NASDAQ LISTING RULE 5635(D), AND WHICH MAY BE DEEMED A "CHANGE OF CONTROL" UNDER NASDAQ LISTING RULE 5635(B), PURSUANT TO THE TERMS OF THE CERTIFICATE OF DESIGNATION GOVERNING THE SERIES E PREFERRED STOCK

We are asking our stockholders to consider and vote upon a proposal that provides for the potential issuance of a number of shares of our Common Stock in excess of 19.99% of our outstanding shares of Common Stock upon the conversion of Series E Preferred Stock that we issued in a private placement in September 2023, at less than the "minimum price" under Nasdaq Listing Rule 5635(d) and which may be deemed a "change of control" under Nasdaq Listing Rule 5635(b), pursuant to the terms of the Series E Preferred Stock (the "*Issuance Proposal*").

On September 5, 2023, we entered into a securities purchase agreement (the "Purchase Agreement") with certain accredited investors (each a "Purchaser" and together, the "Purchasers"), pursuant to which we agreed to issue and sell, in a private placement, (i) shares of Series E-1 Preferred Stock, par value \$0.00001 per share, of the Company (the "Series E-1 Preferred Stock") (which aggregate amount for all Purchasers together shall be 1,225 shares of Series E-1 Preferred Stock and shall be collectively referred to herein as the "Shares"), (ii) tranche A warrants (the "Tranche A Warrants") to acquire 2,205 shares of Series E-3 Preferred Stock, par value \$0.00001 per share, of the Company (the "Series E-3 Preferred Stock,") and (iii) tranche B warrants (the "Tranche B Warrants") and, together with the Tranche A Warrants, the "Warrants") to acquire 1,715 shares of Series E-4 Preferred Stock, par value \$0.00001 per share, of the Company (the "Series E-4 Preferred Stock,"). Pursuant to the Series E Certificate of Designation that was filed with the Delaware Secretary of State on September 7, 2023, each share of Series E-1 Preferred Stock, upon the Stockholder Approval (as defined below), is automatically convertible into shares of Common Stock and/or, if applicable, shares of Series E-2 Preferred Stock, in lieu of Common Stock. The Purchase Agreement contains customary representations, warranties, and covenants of the Company and the Purchasers.

Subject to the terms and limitations contained in the Series E Certificate of Designation and the Warrants, the Series E-1 Preferred Stock issued in pursuant to the Purchase Agreement will not become convertible into shares of Common Stock and/or Series E-2 Preferred Stock and the Warrants will not become exercisable until our stockholders approve (i) the issuance of all Common Stock upon conversion of the Series E-1 Preferred Stock, Series E-2 Preferred Stock, Series E-3 Preferred Stock and the Series E-4 Preferred Stock and (ii) the issuance of the Series E-3 Preferred Stock and Series E-4 Preferred Stock upon exercise of the Warrants (collectively, the "Stockholder Approval"). On the first trading day following the announcement of the Stockholder Approval, each share of Series E-1 Preferred Stock shall automatically convert into Common Stock, at the conversion price of \$1.82 per share, and/or, if applicable, shares of Series E-2 Preferred Stock, in lieu of Common Stock, in each case, subject to the terms and limitations contained in the Series E Certificate of Designation. The Tranche A Warrants are exercisable upon Stockholder Approval until the earlier of (i) ten (10) Trading Days following the date of the Company's public announcement of Positive Topline Data from its CLOVER-WaM Phase 2 pivotal study in patients with relapsed/refractory (r/r) Waldenstrom's macroglobulinemia and (ii) September 8, 2026. The Tranche B Warrants are exercisable upon Stockholder Approval until the earlier of (i) ten (10) Trading Days following the date of the Company's public announcement of its receipt of written approval from the FDA of its New Drug Application for iopofosine I 131 (which announcement shall be made promptly after receipt of such written approval) and (ii) September 8, 2028. Subject to the limitations set forth in the Series E-2 Preferred Stock, at the conversion price of \$1.82 per share of Series E-2 Preferred Stock, series E-3 Preferred Stock or Series E-4 Preferred Stock shall be convertible into Common Sto

7

Holders of Series E Preferred Stock are entitled to one vote for each share of Common Stock into which their Series E Preferred Stock is then-convertible on all matters submitted to a vote of stockholders, other than this Issuance Proposal, as described herein; provided that until the Stockholder Approval is obtained, the number of shares of Common Stock that shall be deemed issued upon conversion of the Series E Preferred Stock (for purposes of calculating the aggregate votes the holders of Series E Preferred Stock are entitled to on an as-converted Common Stock basis) will be subject to the Cap and thus limited to 2,678,843.

The Series E Certificate of Designation provides that holder of Series E Preferred Stock shall not effect any conversion of the Series E Preferred Stock and such Series E Preferred Stock shall not be automatically converted, to the extent that, after giving effect to the conversion, the holder and its affiliates and Attribution Parties would beneficially own in excess of the Maximum Percentage (as defined below). For purposes of determining the Maximum Percentage, the number of shares of Common Stock beneficially owned by such holder and its affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Series E Preferred Stock with respect to which such determination is being made, but will exclude the number of shares of Common Stock which are issuable upon (i) exercise of the remaining unconverted portion of the Series E Preferred Stock beneficially owned by such holder or any of its affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company subject to a limitation on conversion or exercise analogous to the limitation contained in the Series E Certificate of Designation, beneficially owned by such holder or any of its affiliates or Attribution Parties. To the extent that the Maximum Percentage applies, the determination of whether the Series E Preferred Stock is convertible (in relation to other securities owned by such holder together with any affiliates and Attribution Parties) and of how many shares of Series E Preferred Stock are convertible is in the sole discretion of such holder. The Maximum Percentage is 9.99% (or, upon written election by a holder which is delivered to the Company prior to the issuance of any shares of Series E Preferred Stock to such holder, any other percentage not in excess of 19.99% of the issued and outstanding Common Stock immediately after giving effect to the issuance of Common Stock issuable upon conversion of the Series E Preferred

issuance of shares of Common Stock issuable upon conversion of Series E Preferred Stock held by the applicable holder; provided that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to such holder (together with its affiliates) and not to any other holder of Series E Preferred Stock (the "Maximum Percentage").

Additional information concerning the Purchase Agreement, Series E Certificate of Designation and Series E Preferred Stock is contained in our Current Report on Form 8-K filed with the SEC on September 8, 2023, which is incorporated by reference herein.

Why We Need Stockholder Approval

Our Common Stock is listed on The Nasdaq Capital Market, and as a result, we are subject to Nasdaq's Listing Rules, including Nasdaq Listing Rule 5635. Below is an overview of the relevant provisions of Nasdaq Listing Rule 5635 as they relate to the issuance of Common Stock upon conversion of the Series E Preferred Stock and the Issuance Proposal.

8

Nasdaq Listing Rule 5635(d)(2)

Pursuant to Nasdaq Listing Rule 5635(d)(2), stockholder approval is required prior to the issuance of securities in connection with a transaction (or a series of related transactions) other than a public offering involving the sale, issuance or potential issuance of Common Stock (or securities convertible into or exercisable for Common Stock) equal to 20% or more of the Common Stock or 20% or more of the voting power outstanding before the issuance at a price that is less than the lower of (i) the Nasdaq Official Closing Price (as reflected on Nasdaq.com) immediately preceding the signing of the binding agreement; or (ii) the average Nasdaq Official Closing Price of the Common Stock (as reflected on Nasdaq.com) for the five trading days immediately preceding the signing of the binding agreement (the "Minimum Price"). On September 1, 2023, the last trading date prior to the signing of the Purchase Agreement, the closing price of our Common Stock was \$1.82 and the average closing price of our Common Stock for the five trading days immediately preceding September 1, 2023 was \$1.782. As described above, upon Stockholder Approval, each share of Series E-1 Preferred Stock shall automatically convert into Common Stock, at the conversion price of \$1.82 per share, and/or, if applicable, shares of Series E-2 Preferred Stock, subject to the terms and limitations contained in the Series E Certificate of Designation. Subject to the limitations set forth in the Series E Certificate of Designation, at the option of the holder, each share of Series E-2 Preferred Stock, and upon exercise of the Tranche A Warrants and Tranche B Warrants, Series E-3 Preferred Stock or Series E-4 Preferred Stock, respectively, shall be convertible into Common Stock, at the conversion price of \$1.82 per share, \$3.185 per share and \$4.7775 per share, respectively, rounded down to the nearest whole share, and in each case subject to the terms and limitations contained in the Series E Certificate of Designation. Therefore, the conversion of the Series

Nasdaq Listing Rule 5635(b)

Pursuant to Nasdaq Listing Rule 5635(b), stockholder approval is required prior to an issuance of securities that could result in a "change of control" of a listed company, which for Nasdaq purposes, is generally deemed to occur when, as a result of an issuance, an investor or a group of investors acquires, or has the right to acquire, 20% or more of the outstanding equity or voting power of the company and such ownership or voting power would be the company's largest ownership position. As described above, upon Stockholder Approval, each share of Series E-1 Preferred Stock shall automatically convert into Common Stock, and, if applicable, shares of Series E-2 Preferred Stock, and at the option of the holder, each share of Series E-2 Preferred Stock, and upon exercise of the Tranche A Warrants and Tranche B Warrants, Series E-3 Preferred Stock or Series E-4 Preferred Stock, respectively, shall be convertible into Common Stock, in each case subject to the terms and limitations contained in the Series E Certificate of Designation. As a result, the issuance of shares of Common Stock upon the conversion of the Series E Preferred Stock with respect to the transactions contemplated by the Purchase Agreement may result in the issuance of shares of Common Stock in excess of 19.99% of the issued and outstanding Common Stock as of the date of the Purchase Agreement. Accordingly, we are also seeking stockholder approval pursuant to Nasdaq Listing Rule 5635(b).

Potential Effects of Approval of this Proposal

If the Issuance Proposal is approved, the issuance of shares of our Common Stock upon conversion of Series E Preferred Stock would dilute, and thereby reduce, each existing stockholder's proportionate ownership in our Common Stock. For example, the Purchase Agreement provides that immediately upon the Company's announcement of Stockholder Approval, the Series E-1 Preferred Stock shall automatically convert into Common Stock (or shares of Series E-2 Preferred Stock in lieu of Common Stock), at the conversion price of \$1.82 per share, subject to the terms and limitations contained in the Series E Certificate of Designation, resulting in the issuance of approximately 13,461,538 shares of Common Stock (assuming no shares of Series E-1 Preferred Stock are converted into Series E-2 Preferred Stock), which would increase our Common Stock outstanding as of September 1, 2023 from 9,918,384 shares to 23,379,922 shares (an increase of 135.72%); provided that if the issuance of Common Stock upon conversion of Series E-1 Preferred Stock would result in a holder exceeding the Maximum Percentage, such excess shares of Series E-1 Preferred Stock shall convert into Series E-2 Preferred Stock. Furthermore, conversion of the Series E-3 Preferred Stock and Series E-4 Preferred Stock, subject to the terms and limitations contained in the Series E Certificate of Designation, would result in the issuance of approximately 13,846,154 shares of Common Stock and approximately 7,179,487 shares of Common Stock, respectively. Our stockholders do not have preemptive rights to subscribe to additional shares that may be issued by us upon conversion of Series E Preferred Stock in order to maintain their proportionate ownership of the Common Stock. Such issuances could also dilute the voting power of a person seeking control of the Company, thereby deterring or rendering more difficult a merger, tender offer, proxy contest or an extraordinary corporate transaction opposed by the Company. In addition, upon conversion of the Series E Preferred Sto

q

Potential Effects of Non-Approval of this Proposal

If the Issuance Proposal is not approved by our stockholders at the Special Meeting, the Series E-1 Preferred Stock will not become convertible into Common Stock and Series E-2 Preferred Stock, if applicable, and the Tranche A Warrants and Tranche B Warrants will not become exercisable for Series E-3 Preferred Stock and Series E-4 Preferred Stock, respectively. Accordingly, we will be unable to issue any shares of Common Stock underlying the Series E Preferred Stock. Additionally, pursuant to the terms of the Purchase Agreement we are obligated to submit the Issuance Proposal for approval of our stockholders at least semi-annually until such approval is obtained.

Until stockholder approval of the Issuance Proposal is obtained, holders of Series E Preferred Stock are entitled to certain liquidation rights. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company, including a change of control transaction, or Deemed Liquidation Event as defined in the Purchase Agreement (any such event, a "Liquidation") the holders of shares of Series E Preferred Stock then outstanding shall be entitled to be paid out of the consideration payable to stockholders in such Deemed Liquidation Event or the other proceeds available for distribution to stockholders, before any payment shall be made to the holders of any other shares of capital stock of the Company by reason of their ownership thereof, an amount per share equal to the greater of (i) two times (2X) the Original Per Share Price, as defined in the Purchase Agreement, together with any dividends accrued but unpaid thereon (the "Liquidation Preference") or (ii) such amount per share as would have been

payable had all shares of Series E Preferred Stock been converted into Common Stock (without regard to any limitations on conversion set forth in the Series E Certificate of Designation or otherwise) immediately prior to such Liquidation (the amount payable pursuant to this sentence is hereinafter referred to as the "Series E Liquidation Amount"). If upon any such Liquidation, the assets of the Company available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series E Preferred Stock the full Liquidation Preference, the holders of shares of Series E Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full. After the payment in full of the Series E Liquidation Amount, the remaining assets of the Company available for distribution to its stockholders or, in the case of a Deemed Liquidation Event, the consideration not payable to the holders of shares of Series E Preferred Stock pursuant to the Series E Certificate of Designation shall be distributed among the holders of shares of Common Stock, pro rata based on the number of shares held by each such holder.

Following stockholder approval, upon any Liquidation, the assets of the Company available for distribution to its stockholders shall be distributed among the holders of the shares of Series E Preferred Stock, Series D Preferred Stock and Common Stock, pro rata, in the same form of consideration, based on the number of shares held by each such holder, treating for this purpose all shares of Series E Preferred Stock as if they had been converted to Common Stock pursuant to the terms of the Series E Certificate of Designation immediately prior to such Liquidation, without regard to any limitations on conversion set forth in the Series E Certificate of Designation or otherwise.

10

In addition, until stockholder approval of the Issuance proposal is obtained, the Company has agreed not to take certain actions without the consent of the holders of a majority of then-outstanding shares of Series E Preferred Stock, including: effecting any Liquidation; materially changing the nature of the Company's business; amending or waiving any provisions of its organizational documents in a manner that adversely and disproportionately affects the rights, preferences, privileges or power of the shares of Series E Preferred Stock; issuing additional equity securities senior to or pari passu with the Series E Preferred Stock; paying any dividends on the Common Stock or any equity securities junior to or pari passu with the Series E Preferred Stock or repurchase any equity interests (other than repurchases of, or dividends paid (including through payment-in-kind) on, the shares of Series E Preferred Stock or dividends paid solely in the form of equity securities junior to the Series E Preferred Stock); incurring additional indebtedness for borrowed money in excess of \$500,000; entering into or being a party to any transaction with any director, officer, or employee of the Company or any "associate" (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such person or entity except for transactions made in the ordinary course of business and pursuant to reasonable requirements of the Company's business and upon fair and reasonable terms that are approved by a majority of the Board; or selling, assigning, licensing, pledging, or encumbering material technology or intellectual property, other than licenses granted in the ordinary course of business.

If stockholder approval is not obtained within one (1) year of the Issuance Date, as defined in the Purchase Agreement, then unless prohibited by (i) Delaware law governing distributions to stockholders or (ii) applicable stock exchange rule or regulation, shares of Series E-1 Preferred Stock shall be redeemed by the Company at a price equal to the then Liquidation Preference at any time for up to three (3) years following the Issuance Date commencing not more than sixty (60) days after receipt by the Company at any time on or after the one (1) year anniversary of the Issuance Date of written notice from the holders of a majority of the then outstanding shares of Series E-1 Preferred Stock, voting together as a single class (the "Redemption Request") requesting redemption of all shares of Series E-1 Preferred Stock (such date, the 'Redemption Date'). Upon receipt of a Redemption Request, the Company shall apply all of its assets to any such redemption, and to no other corporate purpose, except to the extent prohibited by Delaware law governing distributions to stockholders. On the Redemption Date, the Company shall redeem, on a pro rata basis in accordance with the number of shares of Series E-1 Preferred Stock owned by each holder, the total number of shares of Series E-1 Preferred Stock outstanding immediately prior to the Redemption Date; provided, however, that Excluded Shares (as defined in the Purchase Agreement) shall not be redeemed and shall be excluded from the calculations set forth in this sentence. If, on the Redemption Date, Delaware law governing distributions to stockholders prevents the Company from redeeming all shares of Series E-1 Preferred Stock to be redeemed, the Company shall ratably redeem the maximum number of shares that it may redeem consistent with such law, and shall redeem the remaining shares as soon as it may lawfully do so under such law.

Vote Required

The affirmative vote of a majority of the shares of Common Stock cast at the Special Meeting is required for the approval of this proposal. Under the applicable Nasdaq listing rules, shares of the Series E Preferred Stock are not entitled to vote on an as-converted to Common Stock basis on this proposal. Abstentions and broker non-votes will have no effect on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE "FOR" THE APPROVAL OF PROPOSAL ONE.

11

PROPOSAL TWO: AMENDMENT PROPOSAL

APPROVAL OF THE AMENDMENT TO OUR CERTIFICATE OF INCORPORATION

At the Special Meeting, our stockholders will be asked to approve an amendment to our Second Amended and Restated Certificate of Incorporation, as amended (our "Certificate of Incorporation") to increase the authorized shares of Common Stock issuable thereunder by 10,000,000 shares to 170,000,000 shares (the "Amendment").

Background

Our Certificate of Incorporation currently authorizes the issuance of up to 160,000,000 shares of Common Stock and 7,000 shares of preferred stock. On September 20, 2023, the Board unanimously adopted resolutions setting forth a proposed amendment to Article IV of the Certificate of Incorporation, subject to stockholder approval, to increase the shares of common stock that are authorized for issuance, bringing the total number of shares of common stock authorized for issuance to 170,000,000. No change will be made to the other provisions of the Certificate of Incorporation pursuant to this Proposal 2. The additional authorized shares of common stock, if and when issued, would have the same rights and privileges as the shares of common stock previously authorized.

Reason for and Effect of the Amendment

As of September 26, 2023, a total of [•] shares of Common Stock were issued and outstanding, 111.1111 shares of Series D Preferred Stock were issued and outstanding and 1,225 shares of Series E Preferred Stock were issued and outstanding. As of September 26, 2023, there were an aggregate of [746,257] options outstanding to purchase common stock under our equity incentive plans, warrants to purchase [6,714,479] shares of our common stock, and warrants to purchase [6,714,479] shares of our Series E Preferred Stock were outstanding. Accordingly, of the 160,000,000 shares of Common Stock currently authorized, [•] shares are currently issued or reserved for issuance as of September 26, 2023. Additionally, an aggregate of [364,254] shares of common stock are available for future issuance under the 2021 Stock Incentive Plan (the "2021 Plan"). Accordingly, the additional shares that would result from the Amendment would enable us to issue additional shares under the 2021 Plan, issue additional shares under our equity incentive plans, and provide us the flexibility to issue shares in a financing transaction, an acquisition or another transaction without the need to hold a special meeting of stockholders at the time.

The additional shares of common stock authorized by the Amendment could be issued at the direction of the Board from time to time for any proper corporate purpose,

including, without limitation, the acquisition of other businesses, the raising of additional capital for use in our business, a split of or dividend on then outstanding shares or in connection with any equity incentive plan or program. The holders of shares of common stock do not presently have preemptive rights to subscribe for any of our securities and holders of common stock will not have any such rights to subscribe for the additional common stock proposed to be authorized.

To implement the Amendment, the first sentence of Article IV of our Certificate of Incorporation would be amended to read as follows: "The aggregate number of shares of stock that the Corporation shall have authority to issue is one hundred seventy million seven thousand (170,007,000), of which one hundred seventy million (170,000,000) shares shall be designated 'Common Stock' and seven thousand (7,000) shares shall be designated 'Preferred Stock.'" A copy of the proposed Amendment is set forth in Appendix A hereto. If approved at the Special Meeting, the Amendment would become effective upon the filing of a Certificate of Amendment with the Secretary of State of Delaware, which we would file promptly in the event this Proposal 2 is approved by our stockholders.

12

Principal Effects on Outstanding Common Stock

The Amendment could have a number of effects on our stockholders depending upon the exact nature and circumstances of any actual issuances of authorized but unissued shares. The increase could have an anti-takeover effect, in that additional shares could be issued (within the limits imposed by applicable law) in one or more transactions that could make a change in control or takeover of our Company more difficult. For example, additional shares could be issued by us so as to dilute the stock ownership or voting rights of persons seeking to obtain control of us. Similarly, the issuance of additional shares to certain persons allied with our management could have the effect of making it more difficult to remove our current management by diluting the stock ownership or voting rights of persons seeking to cause such removal. The subsequent issuance of additional common stock could result in dilution in the book value per share and the voting rights of the Common Stock. The Board is not aware of any attempt, or contemplated attempt, to acquire control of our Company, and this proposal is not being presented with the intent that it be utilized as a type of anti-takeover device. Other than as described herein, there are currently no definitive plans, arrangements, commitments or understandings for the issuance of the additional shares of common stock which are to be authorized.

Required Vote and Recommendation

The affirmative vote of a majority of the shares of Common Stock and Series E Preferred Stock voting together as a single class with the holders of the Series E Preferred Stock voting on an as-converted to Common Stock basis, subject to the Cap, cast at the Special Meeting, is required for the approval of this proposal. There will be no broker non-votes on this proposal, and abstentions, if any, will have no effect on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE "FOR" THE APPROVAL OF PROPOSAL TWO.

13

PROPOSAL THREE: ADJOURNMENT PROPOSAL

APPROVAL OF THE ADJOURNMENT OF THE SPECIAL MEETING, IF NECESSARY, IN THE REASONABLE DISCRETION OF THE BOARD, THE CHAIR OF THE BOARD OR THE PRESIDENT OF THE COMPANY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE INSUFFICIENT VOTES AT THE TIME OF THE SPECIAL MEETING TO APPROVE THE ISSUANCE PROPOSAL OR THE AMENDMENT PROPOSAL

Background

If, at the Special Meeting, the number of shares of our common stock present or represented and voting in favor of the Issuance Proposal or the Amendment Proposal is insufficient to approve such proposal, the Board, the Chair of the Board or the President of the Company, in its or his reasonable discretion, may move to adjourn the Special Meeting in order to enable our Board to continue to solicit additional proxies in favor of the Issuance Proposal or the Amendment Proposal.

Our Board believes that if the number of shares of our common stock present in person virtually or represented by proxy at the Special Meeting and voting in favor of the Issuance Proposal or the Amendment Proposal is insufficient to approve such proposal, it is in the best interests of our stockholders to enable our Board to continue to seek to obtain a sufficient number of additional votes to approve the Issuance Proposal or the Amendment Proposal.

In the Adjournment Proposal, we are asking stockholders to authorize the holder of any proxy solicited by our Board to vote in favor of adjourning the Special Meeting or any adjournment or postponement thereof. If our stockholders approve this proposal, we could adjourn the Special Meeting, or any adjournment or postponement thereof, to use the additional time to solicit additional proxies in favor of the Issuance Proposal or the Amendment Proposal.

Additionally, approval of the Issuance Proposal or the Adjournment Proposal could mean that, in the event we receive proxies indicating that a majority of the number of shares of our common stock present in person virtually or represented by proxy at the Special Meeting will vote against the Amendment Proposal, we could adjourn the Special Meeting without a vote on the Issuance Proposal or the Amendment Proposal and use the additional time to solicit the holders of those shares to change their vote in favor of the Issuance Proposal or the Amendment Proposal.

Required Vote and Recommendation

The affirmative vote of a majority of the shares of Common Stock and Series E Preferred Stock voting together as a single class with the holders of the Series E Preferred Stock voting on an as-converted to Common Stock basis, subject to the Cap, cast at the Special Meeting, is required for the approval of this proposal. There will be no broker non-votes on this proposal, and abstentions, if any, will have no effect on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE "FOR" THE APPROVAL OF PROPOSAL THREE.

14

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

- each person known by us to be the beneficial owner of more than 5% of our common stock;
- each of our directors:
- · each of our named executive officers; and
- · all of our current directors and executive officers as a group.

The persons named in this table have sole voting and investment power with respect to the shares listed, except as otherwise indicated. In these cases, the information with respect to voting and investment power has been provided to us by the security holder. The identification of natural persons having voting or investment power over securities held by a beneficial owner listed in the table below does not constitute an admission of beneficial ownership of any such natural person. Shares included in the "Right to Acquire" column consist of shares that may be purchased through the exercise of options or warrants that are exercisable within 60 days of September 15, 2023.

Name and Address of Beneficial Owner	Common Stock Outstanding	Common Stock Right to Acquire	Common Stock Total	Percentage of Common Stock Beneficially Owned	Series E Preferred Stock	of Series E Preferred Stock Beneficially Owned
James V. Caruso (1)	8,622	205,702	214,324	2.2%	-	-
Chad J. Kolean	24	5,000	5,024	*	-	-
Jarrod Longcor (2)	10,214	68,673	78,887	*	-	-
Frederick W. Driscoll	1,941	22,650	24,591	*	-	-
Asher Chanan-Khan, M.B.B.S., M.D.	-	10,400	10,400	*	-	-
Stefan D. Loren, Ph.D.	-	22,885	22,885	*	-	-
John Neis (3)	6,260	22,887	29,147	*	-	-
Douglas Swirsky	2,500	34,425	36,925	*	-	-
All directors and executive officers as a group (10 persons)	35,909	785,678	857,496	8.6%		
Entities Affiliated with Rosalind Advisors, Inc. (4)	986,293	2,158,272	3,144,565	9.9%	350	28.57%
Entities affiliated with AIGH Capital Management LLC (5)	-	-	-		175	14.29%
ADAR1 Partners, LP (6)	-	-	-		162.5	13.27%
Laurence W. Lytton (7)	-	-	-		160	13.06%
Entities affiliated with Nantahala Capital Management, LLC (8)	-	-	-		150	12.24%

- Less than 1%.
- (1) Shares in the "Right to Acquire" column consist of (i) 10,870 shares of common stock issuable upon the exercise of warrants held by Mr. Caruso and (ii) common stock issuable currently or within 60 days upon exercise of options to purchase 882,083 shares of common stock issued to Mr. Caruso.
- (2) Shares in the "Right to Acquire" column consist of (i) 32,609 shares of common stock issuable upon the exercise of warrants held by Mr. Longcor and (ii) common stock issuable currently or within 60 days upon exercise of options to purchase 279,666 shares of common stock issued to Mr. Longcor.
- (3) Consists of shares of common stock held by Advantage Capital Wisconsin Partners I, Limited Partnership. Venture Investors LLC is the submanager and special limited partner of Advantage Capital Wisconsin Partners I, Limited Partnership. The investment decisions of Venture Investors LLC are made collectively by five managers, including Mr. Neis. Each such manager and Mr. Neis disclaim such beneficial ownership except to the extent of his pecuniary interest therein. The address of Mr. Neis is c/o Venture Investors LLC, 505 South Rosa Road, #201, Madison, Wisconsin 53719. Shares in the "Right to Acquire" column consist of common stock issuable currently or within 60 days upon exercise of options to purchase 54,844 shares of common stock issued to Mr. Neis in his capacity as director.
- (4) As reported in Schedule 13G/A filed with the SEC on February 14, 2023. Based on such 13G/A filing, each of Rosalind Advisors, Inc., Rosalind Master Fund L.P., Steven Salamon and Gilad Aharon has sole voting power over no shares, shared voting power over 3,144,565 shares, sole dispositive power over no shares and shared dispositive power over 3,144,565 shares. Includes (i) 237.50 shares of Series E-1 Preferred Stock held of record by Investor Company ITF Rosalind Master Fund L.P. and (ii) 112.50 shares of Series E-1 Preferred Stock held of record by the Rosalind Opportunities Fund I L.P. The address of each of Rosalind Advisors, Inc., Investor Company ITF Rosalind Master Fund L.P., Rosalind Opportunities Fund I L.P., Steven Salamon and Gilad Aharon is 15 Wellesley Street West, Suite 326, Toronto, Ontario, M4Y 0G7 Canada. The address of Rosalind Master Fund L.P. is P.O. Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands.
- (5) Mr. Orin Hirschman is the managing member of AIGH Capital Management, LLC, a Maryland limited liability company ("AIGH CM"), who is an advisor with respect to the securities held by AIGH Investment Partners, L.P. ("AIGH LP"), WVP Emerging Manager Onshore Fund, LLC AIGH Series and WVP Emerging Manager Onshore Fund, LLC Optimized Equity Series. Consists of (i) 132.31 shares of Series E-1 Preferred Stock held of record by AIGH LP, (ii) 33.54 shares of Series E-1 Preferred Stock held of record by WVP Emerging Manager Onshore Fund, LLC AIGH Series and (iii) 9.15 shares of Series E-1 Preferred Stock held of record by WVP Emerging Manager Onshore Fund, LLC Optimized Equity Series. Mr. Hirschman has voting and investment control over the securities indirectly held by AIGH CM, directly held by AIGH IP and directly held by Mr. Hirschman and his family. The address for AIGH CM, AIGH LP, WVP Emerging Manager Onshore Fund, LLC AIGH Series, WVP Emerging Manager Onshore Fund, LLC Optimized Equity Series and Mr. Hirschman is 6006 Berkeley Avenue, Baltimore, Maryland 21209.
- (6) The address of the stockholder is 3503 Wild Cherry Drive, Building 9, Austin, TX 78738.
- (7) Consists of (i) 40 shares of Series E-1 Preferred Stock held of record by Alice W. Lytton Family LLC and (ii) 120 shares of Series E-1 Preferred Stock held of record by the Lytton-Kambara Foundation. The address of the stockholder is 467 Central Park West, New York, NY 10025.
- (8) Consists of (i) 8.68 shares of Series E-1 Preferred Stock held of record by Nantahala Capital Partners II Limited Partnership, 17.28 shares of Series E-1 Preferred Stock held of record by Nantahala Capital Partners Limited Partnership, 29.76 shares of Series E-1 Preferred Stock held of record by NCP RFM LP, 94.28 shares of Series E-1 Preferred Stock held of record by Blackwell Partners LLC Series A. The parties hold shared voting and dispositive power over such shares. The business address for Nantahala Capital Partners II Limited Partnership, Nantahala Capital Partners Limited Partnership, and NCP RFM LP is 130 Main St., 2nd Floor, New Canaan, CT 06840. The business address for Blackwell Partners LLC Series A is 280 South Mangum Street, Suite 210, Durham, NC 27701.

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (e,g,\cdot) brokers) to satisfy the delivery requirements for proxy statements, annual reports and notices of internet availability of proxy materials with respect to two or more stockholders sharing the same address by delivering a single copy of the applicable document(s) addressed to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies.

Brokers with account holders who are stockholders of the Company may be "householding" our proxy materials. A single proxy statement or notice may be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that it will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you notify your broker or the Company that you no longer wish to participate in "householding."

If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate proxy statement, annual report or notice you may (1) notify your broker, (2) direct your written request to: Investor Relations, Cellectar Biosciences, Inc., 100 Campus Drive, Florham Park, New Jersey 07932, by telephone at (608) 441-8120 or by e-mail to investors@cellectar.com. Stockholders who currently receive multiple copies of our proxy statement and/or notice at their address and would like to request "householding" of their communications should contact their broker. In addition, the Company will promptly deliver, upon written or oral request to the address or telephone number above, a separate copy of the proxy statement, annual report and/or notice to a stockholder at a shared address to which a single copy of the document(s) was delivered.

Stockholder Proposals and Nominations

Pursuant to Rule 14a-8 under the Exchange Act, in order to be included in our proxy statement and form of proxy for the 2024 annual meeting of stockholders, stockholder proposals must be received at our principal executive offices, at 100 Campus Drive, Florham Park, New Jersey 07932, Attention: Secretary, no later than December 30, 2023 and must comply with additional requirements established by the SEC. If we change the date of our next annual meeting of stockholders by more than 30 days from the date of the previous year's annual meeting of stockholders, then the deadline is a reasonable time before we begin to print and send our proxy materials. Pursuant to our bylaws, a stockholder proposal of business submitted outside of the process established in Rule 14a-8 and stockholder nominations of directors must be received no earlier than February 15, 2024 and not later than March 16, 2024 and must otherwise comply with the requirements set forth in our by-laws. Any proposal or nomination should be addressed to the attention of the Secretary, and we suggest that it be sent by certified mail, return receipt requested or through another mailing service that provides tracking information and proof of receipt. In addition to satisfying the requirements of our by-laws, 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 15, 2024.

Other Matters

We know of no other matters that will be presented for consideration at the Special Meeting. If any other matters properly come before the Special Meeting upon which a vote properly may be taken, shares represented by all proxies received by us on the proxy card will be voted with respect thereto as permitted and in accordance with the judgment of the proxy holders.

Where You Can Find More Information

We are subject to the informational requirements of the Exchange Act, as amended, and in accordance therewith file reports, proxy statements and other information with the SEC. Our filings, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, are available to the public over the internet at the SEC's website at www.sec.gov, as well as at our website at www.cellectar.com by clicking on the "Investors" tab and selecting "SEC Filings."

16

The Company's common stock is listed on the Nasdaq Capital Market and trades under the symbol "CLRB."

By Order of the Board of Directors,

Chad J. Kolean, Secretary Florham Park, New Jersey [•], 2023

17

APPENDIX A

FORM OF AMENDMENT TO SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OFCELLECTAR BIOSCIENCES, INC.

CELLECTAR BIOSCIENCES, Inc., (the "Corporation"), a corporation organized an existing under and by virtue of the General Corporation Law of the State of Delaware, hereby certifies as follows:

- 1. This Certificate of Amendment amends the provisions of the Corporation's Second Amended and Restated Certificate of Incorporation, as amended and filed with the Secretary of State of the State of Delaware (the "Second Amended and Restated Certificate of Incorporation").
- 2. The [•] paragraph of [•] of the Second Amended and Restated Certificate of Incorporation is hereby deleted and amended and restated in its entirety as follows:

FOURTH: The aggregate number of shares of stock that the Corporation shall have authority to issue is [one hundred seventy million seven thousand (170,007,000), of which one hundred seventy million (170,000,000)] shares shall be designated 'Common Stock' and seven thousand (7,000) shares shall be designated 'Preferred Stock.' Shares of Common Stock and Preferred Stock shall have a par value of \$0.00001 per share.

- 3. The foregoing amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.
- 4. All other provisions of the Restated Certificate of Incorporation shall remain in full force and effect.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be signed this $[\bullet]$ day of $[\bullet]$, 2023.					
	ELLECTAR BIOSCIENCES, INC.				
E	Зу:				
	Chad J. Kolean Chief Financial Officer and Corporate Secretary				
18					

5. The foregoing amendment shall be effective as of 11:59 p.m., Eastern Time, on the date of filing with the Secretary of State of the State of Delaware.

CELLECTAR BIOSCIENCES, INC.

Special Meeting of Stockholders October 25, 2023 at 10:00 AM EDT

This Proxy is solicited on behalf of the Board of Directors of Cellectar Biosciences, Inc.

Common Stock

The undersigned hereby appoints James Caruso, Chad Kolean, and Asher Rubin, and each or any of them, as the true and lawful attorneys of the undersigned, with full power of substitution and revocation, and authorizes them, and each of them, to vote all the shares of common stock of Cellectar Biosciences, Inc. which the undersigned is entitled to vote at said meeting and any adjournment thereof upon the matters specified and upon such other matters as may be properly brought before the meeting or any adjournment thereof, conferring authority upon such true and lawful attorneys to vote in their discretion on such other matters as may properly come before the meeting and revoking any proxy heretofore given. The Special Meeting will be held in virtual only format. In order to attend the meeting, you must first register at http://www.viewproxy.com/clrb/2023 by 11:59 p.m. Eastern Time on October 22, 2023. After registering, you will receive an e-mail containing a unique link and password that will enable you to attend the meeting and vote at the meeting and at any adjournment or postponement thereof.

THE SHARES REPRESENTED BY THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, SHARES WILL BE VOTED FOR THE PROPOSALS IN ITEMS 1, 2, AND 3. THE PROXIES WILL VOTE IN THEIR DISCRETION ON ANY OTHER BUSINESS AS MAY PROPERLY COME BEFORE THE MEETING AND ANY ADJOURNMENT THEREOF.

(Continued and to be marked, dated, and signed on the other side)

▲ PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED. ▲

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

The Notice and Proxy Statement are available at http://www.viewproxy.com/XXX/2023 The Board of Directors recommends a vote "FOR" Proposals 1, 2, and 3,

The Doard	i Directors re	commends a vote i	Oly Troposais 1, 2, and 3					
Proposal 1.	To approve the potential issuance in excess of 19.99% of Cellectar's outstanding common stock upon conversion of the Series E Preferred Stock at less than the "minimum price" under Nasdaq Listing Rule 5635.			Proposal 2.	 To approve the amendment of Cellectar's Second Amended and Restated Certificate of Incorporation, as amended, to increase the authorized common stock from 160,000,000 to 170,000,000 shares. 			
	FOR	AGAINST □	ABSTAIN □		FOR	AGAINST □	ABSTAIN □	
				Proposal 3.	in the reasona the Board, the additional prox	ble discretion of Cellect President or the Co	pecial Meeting, if necessar, lar's Board, the Chairman o rporate Secretary to solici ient votes at the time of the e other proposals.	
					FOR	AGAINST	ABSTAIN □	
DO NOT PRINT IN THIS AREA (Stockholder Name & Address Data)				NOTE: To c any adjourn		er business properly br	ought before the meeting o	
I plan	o attend the m	eeting 🗌		Signature				
	_	ments: (If you noted ar		Signature (if	held jointly)			
CONTROL NUMBER				exactly as so the enclosed When signin please give to corporate na	ich stockholder' envelope. Whe g as an execu full title as such ame by duly a	s name appears hered on shares are held joint itor, administrator, atto i. If the signatory is a uthorized officer, givin	signed by each stockholde in, and returned promptly in by, each holder should sign prney, trustee, or guardiar corporation, please sign ful g full title as such. If the lership name by authorized	

▲ PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED. ▲

As a stockholder of Cellectar Biosciences, Inc., you have the option of voting your shares electronically through the Internet or by telephone, eliminating the need to return the proxy card. Your electronic vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed, dated, and returned the proxy card.



PROXY VOTING INSTRUCTIONS

Please have your 11-digit Control Number ready when voting by Internet or telephone.



INTERNET

Vote Your Proxy on the Internet: Go to www.fcrvote.com/CLRB

Have your proxy card available when you access the above website. Follow the prompts to vote your shares.



TELEPHONE

Vote Your Proxy by Phone: Call 1 (866) 402-3905

Use any touch-tone telephone to vote your proxy. Have your proxy card available when you call. Follow the voting instructions to vote your shares.



MAIL

Vote Your Proxy by Mail:

Mark, sign, and date your proxy card, then detach it, and return it in the postage-paid envelope provided.

CELLECTAR BIOSCIENCES, INC.

Special Meeting of Stockholders October 25, 2023 at 10:00 AM EDT

This Proxy is solicited on behalf of the Board of Directors of Cellectar Biosciences, Inc.

Series E Preferred Stock

The undersigned hereby appoints James Caruso, Chad Kolean, and Asher Rubin, and each or any of them, as the true and lawful attorneys of the undersigned, with full power of substitution and revocation, and authorizes them, and each of them, to vote all the shares of Series E Preferred Stock of Cellectar Biosciences, Inc. which the undersigned is entitled to vote at said meeting and any adjournment thereof upon the matters specified and upon such other matters as may be properly brought before the meeting or any adjournment thereof, conferring authority upon such true and lawful attorneys to vote in their discretion on such other matters as may properly come before the meeting and revoking any proxy heretofore given. The Special Meeting will be held in virtual only format. In order to attend the meeting, you must first register at http://www.viewproxy.com/clrb/2023 by 11:59 p.m. Eastern Time on October 22, 2023. After registering, you will receive an e-mail containing a unique link and password that will enable you to attend the meeting and vote at the meeting and at any adjournment or postponement thereof.

HOLDERS OF SERIES E PREFERRED STOCK ARE ONLY ELIGIBLE TO VOTE FOR THE PROPOSALS IN ITEMS 2 AND 3. THE SHARES REPRESENTED BY THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, SHARES WILL BE VOTED FOR THE PROPOSALS IN ITEMS 2 AND 3. THE PROXIES WILL VOTE IN THEIR DISCRETION ON ANY OTHER BUSINESS AS MAY PROPERLY COME BEFORE THE MEETING AND ANY ADJOURNMENT THEREOF.

(Continued and to be marked, dated, and signed on the other side)

▲ PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED. ▲

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

The Notice and Proxy Statement are available at http://www.viewproxy.com/XXX/2023

The Board of Directors recommends a vote "FOR" Proposals 1, 2, and 3. Proposal 1. To approve the potential issuance in excess of 19.99% of Proposal 2. To approve the amendment of Cellectar's Second Amended and Cellectar's outstanding common stock upon conversion of the Restated Certificate of Incorporation, as amended, to increase the Series E Preferred Stock at less than the "minimum price" under authorized common stock from 160,000,000 to 170,000,000 Nasdaq Listing Rule 5635. shares AGAINST FOR [ABSTAIN [FOR AGAINST ABSTAIN □ Proposal 3. To approve the adjournment of the Special Meeting, if necessary in the reasonable discretion of Cellectar's Board, the Chairman of the Board, the President or the Corporate Secretary to solicit additional proxies if there are insufficient votes at the time of the Special Meeting to approve any of the other proposals. AGAINST FOR ABSTAIN DO NOT PRINT IN THIS AREA NOTE: To conduct any other business properly brought before the meeting or (Stockholder Name & Address Data) any adjournment thereof. Dated: Signature I plan to attend the meeting Address Change/Comments: (If you noted any Address Changes Signature (if held jointly) and/or Comments above, please mark box.) NOTE: This proxy should be marked, dated and signed by each stockholder exactly as such stockholder's name appears hereon, and returned promptly in the enclosed envelope. When shares are held jointly, each holder should sign. CONTROL NUMBER When signing as an executor, administrator, attorney, trustee, or guardian please give full title as such. If the signatory is a corporation, please sign full

▲ PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED. ▲

As a stockholder of Cellectar Biosciences, Inc., you have the option of voting your shares electronically through the Internet or by telephone, eliminating the need to return the proxy card. Your electronic vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed, dated, and returned the proxy card.



PROXY VOTING INSTRUCTIONS

Please have your 11-digit Control Number ready when voting by Internet or telephone.



INTERNET

Vote Your Proxy on the Internet: Go to www.fcrvote.com/CLRB

Have your proxy card available when you access the above website. Follow the prompts to vote your shares.



TELEPHONE

Vote Your Proxy by Phone: Call 1 (866) 402-3905

Use any touch-tone telephone to vote your proxy. Have your proxy card available when you call. Follow the voting instructions to vote your shares.



corporate name by duly authorized officer, giving full title as such. If the signatory is a partnership, please sign in the partnership name by authorized

Vote Your Proxy by Mail:

Mark, sign, and date your proxy card, then detach it, and return it in the postage-paid envelope provided.