
SCHEDULE 14A INFORMATION

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

Filed by the Registrant

Filed by a Party other than the Registrant

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 Pursuant to § 240.14a-12

BELLICUM PHARMACEUTICALS, 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 computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

1. Title of each class of securities to which transaction applies:

2. Aggregate number of securities to which transaction applies:

3. Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (Set forth the amount on which the filing fee is calculated and state how it was determined):

4. Proposed maximum aggregate value of transaction:

5. Total fee paid:

Fee paid previously with preliminary materials.

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

6. Amount Previously Paid:

7. Form, Schedule or Registration Statement No.:

8. Filing Party:

9. Date Filed:

BELLICUM PHARMACEUTICALS, INC.

**2130 W. Holcombe Blvd., Suite 800
Houston, TX 77030**



NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held on January 15, 2020

Dear Stockholder:

You are invited to attend a Special Meeting of Stockholders, or the Special Meeting, of Bellicum Pharmaceuticals, Inc., a Delaware corporation, or the Company. The meeting will be held on January 15, 2020 at 8:00 a.m. (local time) at the offices of the Company, located at 611 Gateway Blvd., Suite 820, South San Francisco, CA 94080. At the Special Meeting, stockholders will vote on the following matters:

1. To approve a series of alternate amendments to the Company's Amended and Restated Certificate of Incorporation, to effect, at the discretion of the Company's Board of Directors: (i) a reverse split of the Company's common stock, whereby each outstanding 5, 6, 7, 8, 9 or 10 shares of common stock would be combined and converted into one share of common stock; and (ii) for reverse splits in the range of 1-for-5 to 1-for-10, a reduction in the number of authorized shares of common stock from 200,000,000 to 80,000,000, 66,666,667, 57,142,858, 50,000,000, 44,444,445 or 40,000,0000 shares, respectively. We refer to this proposal as the "Reverse Stock Split Proposal" or "Proposal 1."
2. To approve an amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 200,000,000 to 400,000,000. We refer to this proposal as the "Increase in Number of Authorized Shares of Common Stock Proposal" or "Proposal 2."
3. To approve an amendment to the Company's 2019 Equity Incentive Plan, or the Amended 2019 Plan, to, among other things, increase the number of shares of common stock authorized for issuance under the 2019 Plan by 6,000,000 shares (before any adjustment for any reverse stock split). We refer to this proposal as the "Equity Incentive Plan Proposal" or "Proposal 3."
4. To approve the adjournment of the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of any of the foregoing proposals. We refer to this as the "Adjournment Proposal" or "Proposal 4."

These items of business are more fully described in the Proxy Statement accompanying this Notice.

The record date for the Special Meeting is November 22, 2019. Only stockholders of record at the close of business on that date may vote at the meeting or any adjournment thereof.

Important Notice Regarding the Availability of Proxy Materials for the Shareholder Meeting To Be Held on January 15, 2020 at 8:00 a.m. (local time) at the offices of the Company, located at 611 Gateway Blvd., Suite 820, South San Francisco, CA 94080.

The proxy statement is available at www.proxyvote.com.

By Order of the Board of Directors

(Name)
(Title)

Houston, Texas
, 2019

You are cordially invited to attend the meeting in person. Whether or not you expect to attend the meeting, please vote as promptly as possible in order to ensure your representation at the meeting. Even if you have voted by proxy, you may still vote in person if you attend the meeting. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

BELLICUM PHARMACEUTICALS, INC.

**2130 W. Holcombe Blvd., Suite 800
Houston, TX 77030**

**PROXY STATEMENT
FOR THE SPECIAL MEETING OF STOCKHOLDERS**

To Be Held On January 15, 2020

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Why did I receive a notice regarding the availability of proxy materials on the internet?

Pursuant to rules adopted by the Securities and Exchange Commission, or the SEC, we have elected to provide access to our proxy materials over the internet. Accordingly, we have sent you a Notice of Internet Availability of Proxy Materials, or the Notice, because the Board of Directors, or the Board, of Bellicum Pharmaceuticals, Inc. (sometimes referred to as the “Company,” or “Bellicum,” “we,” “our” or “us”) is soliciting your proxy to vote at a Special Meeting of Stockholders, or the Special Meeting, including at any adjournments or postponements of the meeting. All stockholders will have the ability to access the proxy materials on the website referred to in the Notice or request to receive a printed set of the proxy materials. Instructions on how to access the proxy materials over the internet or to request a printed copy may be found in the Notice.

We intend to mail the Notice on or about December , 2019 to all stockholders of record entitled to vote at the Special Meeting.

Will I receive any other proxy materials by mail?

We may send you a proxy card, along with a second Notice, on or after December , 2019.

How do I attend the Special Meeting?

The meeting will be held on January 15, 2020 at 8:00 a.m. local time at the offices of the Company located at 611 Gateway Blvd., Suite 820, South San Francisco, CA 94080. Directions to the Special Meeting may be found at www.bellicum.com. The information on our website is not incorporated by reference into this Proxy Statement. Information on how to vote in person at the Special Meeting is discussed below.

Who can vote at the special meeting?

Only stockholders of record at the close of business on November 22, 2019 will be entitled to vote at the Special Meeting. On this record date, there were 49,924,719 shares of common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If, on November 22, 2019, your shares were registered directly in your name with Bellicum’s transfer agent, American Stock Transfer & Trust Company, LLC, then you are a stockholder of record. As a stockholder of record, you may vote in person at the Special Meeting or vote by proxy. Whether or not you plan to attend the Special Meeting, we urge you to vote by proxy to ensure your vote is counted.

Beneficial Owner: Shares Registered in the Name of a Broker or Bank

If, on November 22, 2019, your shares were held in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in “street name” and the Notice is being

forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the Special Meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the Special Meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the Special Meeting unless you request and obtain a valid proxy from your broker or other agent.

What am I voting on?

There are four proposals being presented for stockholder vote:

1. To approve a series of alternate amendments to the Company's Amended and Restated Certificate of Incorporation, to effect, at the discretion of the Board: (i) a reverse split of the Company's common stock, whereby each outstanding 5, 6, 7, 8, 9 or 10 shares of common stock would be combined and converted into one share of common stock; and (ii) for reverse splits in the range of 1-for-5 to 1-for-10, a reduction in the number of authorized shares of common stock from 200,000,000 to 80,000,000, 66,666,667, 57,142,858, 50,000,000, 44,444,445 or 40,000,0000 shares, respectively;
2. To approve an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 200,000,000 to 400,000,000;
3. To approve an amendment to the Company's 2019 Equity Incentive Plan, or the Amended 2019 Plan, to, among other things, increase the number of shares of common stock authorized for issuance under the 2019 Plan by 6,000,000 shares (before any adjustment for any reverse stock split); and
4. To adjourn the Special Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of any of the foregoing proposals.

What if another matter is properly brought before the meeting?

We currently know of no other matters that will be presented for consideration at the Special Meeting. If any other matters are properly brought before the meeting, it is the intention of the persons named in the proxy statement accompanying the Notice to vote on those matters in accordance with their best judgment.

How do I vote?

For each of the other matters to be voted on, you may vote "For" or "Against" or abstain from voting.

The procedures for voting are as follows:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote in person at the Special Meeting, vote by proxy over the telephone, vote by proxy through the internet or vote by proxy using a proxy card that you may request or that we may elect to deliver at a later time. Whether or not you plan to attend the Special Meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the Special Meeting and vote in person even if you have already voted by proxy.

- **VOTE IN PERSON:** You may come to the Special Meeting and we will give you a ballot when you arrive.
- **VOTE BY PHONE:** To vote over the telephone, dial toll-free **1-800-690-6903**, using any touch-tone telephone and follow the recorded instructions. You will be asked to provide the control number from the Notice. Your telephone vote must be received by 11:59 p.m. Eastern Time on January 14, 2020 to be counted.

- **VOTE BY INTERNET:** You may vote at www.proxyvote.com to complete an electronic proxy card. You will be asked to provide the control number from the Notice. Your internet vote must be received by 11:59 p.m. Eastern Time on January 14, 2020, to be counted.
- **VOTE BY PROXY CARD:** To vote using a proxy card, simply complete, sign and date the proxy card that may be delivered and return it promptly in the envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. If you return your signed proxy card to us before the Special Meeting, we will vote your shares as you direct.

Beneficial Owner: Shares Registered in the Name of Broker or Bank

If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a Notice containing voting instructions from that organization rather than from Bellicum. Simply follow the voting instructions in the Notice to ensure that your vote is counted. To vote in person at the Special Meeting, you must obtain a valid proxy from your broker, bank or other agent. Follow the instructions from your broker or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

We provide internet proxy voting to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. However, please be aware that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of the close of business on November 22, 2019.

What happens if I do not vote?

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record and do not vote by telephone, through the internet, by completing, dating, signing and returning your proxy card, or in person at the Special Meeting, your shares will not be voted.

Beneficial Owner: Shares Registered in the Name of Broker or Bank

If you are a beneficial owner and do not instruct your broker, bank, or other agent how to vote your shares, the question of whether your broker or nominee will still be able to vote your shares depends on whether the New York Stock Exchange, or the NYSE, deems the particular proposal to be a “routine” matter. Brokers and nominees can use their discretion to vote “uninstructed” shares with respect to matters that are considered to be “routine,” but not with respect to “non-routine” matters. Under the rules of the NYSE applicable to brokers and agents, “non-routine” matters are matters that may substantially affect the rights or privileges of stockholders, such as mergers, stockholder proposals, elections of directors (even if not contested), executive compensation (including any advisory stockholder votes on executive compensation and on the frequency of stockholder votes on executive compensation), and certain corporate governance proposals, even if management-supported. Accordingly, we believe that your broker or nominee will not be permitted to vote your shares on Proposal 3 without your instructions but will be permitted vote your shares on Proposals 1, 2 and 4. However, this remains subject to the final determination from the NYSE regarding which of the proposals are “routine” or “non-routine.”

What if I return a proxy card or otherwise vote but do not make specific choices?

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, “For” the Reverse Split Proposal, “For” the Increase in Number of Authorized

Shares of Common Stock Proposal, “For” the Equity Incentive Plan Proposal and “For” the Adjournment Proposal. We have engaged The Proxy Advisory Group, LLC to assist in the solicitation of proxies and provide related advice and informational support, for a services fee and the reimbursement of customary disbursements, which are not expected to exceed \$25,000 in total. If any other matter is properly presented at the meeting, your proxy holder (one of the individuals named on your proxy card) will vote your shares using his or her best judgment.

Who is paying for this proxy solicitation?

We will pay for the entire cost of soliciting proxies. In addition to these proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

What does it mean if I receive more than one Notice?

If you receive more than one Notice, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions on the Notices to ensure that all of your shares are voted.

Can I change my vote after submitting my proxy?

Stockholder of Record: Shares Registered in Your Name

Yes. You can revoke your proxy at any time before the final vote at the Special Meeting. If you are the record holder of your shares, you may revoke your proxy in any one of the following ways:

- You may submit another properly completed proxy card with a later date.
- You may grant a subsequent proxy by telephone or through the internet.
- You may send a timely written notice that you are revoking your proxy to Bellicum Pharmaceuticals, Inc., Attn: Corporate Secretary, 2130 W. Holcombe Blvd., Suite 800, Houston, TX 77030.
- You may attend the Special Meeting and vote in person. Simply attending the Special Meeting will not, by itself, revoke your proxy.

Your most current proxy card or telephone or internet proxy is the one that is counted.

Beneficial Owner: Shares Registered in the Name of Broker or Bank

If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank.

How are votes counted?

Votes will be counted by the inspector of election appointed for the meeting, who will separately count “For” and “Against” votes, abstentions and broker non-votes. Abstentions will be counted towards the vote total for each proposal and will have the same effect as “Against” votes. Broker non-votes will also have the same effect as “Against” votes for Proposal 1 and Proposal 2.

What are “broker non-votes”?

When a beneficial owner of shares held in “street name” does not give instructions to the broker or nominee holding the shares as to how to vote on matters deemed to be non-routine under applicable rules, the broker or

nominee cannot vote the shares on such matters. These unvoted shares are counted as “broker non-votes.” Broker non-votes will be counted towards the presence of a quorum but will not be counted towards the vote total for any proposal.

How many votes are needed to approve each proposal?

Approval of each of the Reverse Stock Split Proposal and the Increase in Number of Authorized Shares of Common Stock Proposal will require the affirmative vote of the majority of outstanding shares of Common Stock. Abstentions and broker non-votes will have the same effect as “AGAINST” votes.

Approval of the Equity Incentive Plan Proposal and Adjournment Proposal will require the affirmative vote of the majority of shares present in person, by remote communication, if applicable, or represented by proxy at the meeting and entitled to vote on the subject matter. Abstentions will have the same effect as “AGAINST” votes. Broker non-votes will have no effect on this proposal.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding at least a majority of the outstanding shares entitled to vote are present at the Special Meeting in person or represented by proxy. On the record date, November 22, 2019, there were 49,924,719 shares outstanding and entitled to vote. Thus, the holders of 24,962,360 shares must be present in person or represented by proxy at the meeting to have a quorum.

Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you vote in person at the Special Meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the holders of a majority of shares present at the Special Meeting in person or represented by proxy may adjourn the Special Meeting to another date.

How can I find out the results of the voting at the Special Meeting?

Preliminary voting results will be announced at the Special Meeting. In addition, final voting results will be published in a current report on Form 8-K that we expect to file within four business days after the Special Meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the Special Meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

When are stockholder proposals and director nominations due for next year’s Annual Meeting?

To be considered for inclusion in the Company’s proxy materials for next year’s annual meeting, your proposal must be submitted in writing by January 3, 2020, to Bellicum Pharmaceuticals, Inc., Attn: Corporate Secretary, 2130 W. Holcombe Blvd., Suite 800, Houston, TX 77030. If you wish to submit a proposal (including a director nomination) at the annual meeting that is not to be included in the Company’s proxy materials for next year’s annual meeting, such proposal must be received no earlier than the close of business on February 14, 2020 nor later than the close of business on March 16, 2020. You are also advised to review the Company’s Bylaws, which contain additional requirements relating to advance notice of stockholder proposals and director nominations.

PROPOSAL 1:

APPROVAL OF THE REVERSE STOCK SPLIT PROPOSAL

General

The Board has approved a series of proposed amendments to the Company's Amended and Restated Certificate of Incorporation, as amended, or the Certificate of Incorporation, that would:

- effect a reverse stock split of the Company's common stock, whereby each outstanding 5, 6, 7, 8, 9 or 10 shares would be combined and converted into one share of the Company's common stock (each of which is referred to in this proxy statement as a Reverse Stock Split); and
- for reverse splits in the range of 1-for-5 to 1-for-10, a reduction in the number of authorized shares of common stock from 200,000,000 to 80,000,000, 66,666,667, 57,142,858, 50,000,000, 44,444,445 or 40,000,000 shares, respectively.

Under these proposed amendments, each 5, 6, 7, 8, 9 or 10 shares of common stock currently outstanding or reserved for issuance would be combined and converted into one share of common stock. At the same time, for reverse splits in the range of 1-for-5 to 1-for-10, a reduction in the number of authorized shares of common stock from 200,000,000 to 80,000,000, 66,666,667, 57,142,858, 50,000,000, 44,444,445 or 40,000,000 shares, respectively. The combined effect of each of the alternative amendments (each of which is referred to in this proxy statement as a Reverse Stock Amendment) is illustrated in the table below:

	<u>Amendment No.1 (see Appendix 1)</u>	<u>Amendment No.2 (see Appendix 2)</u>	<u>Amendment No.3 (see Appendix 3)</u>	<u>Amendment No.4 (see Appendix 4)</u>	<u>Amendment No.5 (see Appendix 5)</u>	<u>Amendment No.6 (see Appendix 6)</u>
Reverse Stock Split ratio	5:1	6:1	7:1	8:1	9:1	10:1
Number of authorized shares of common stock	80,000,000	66,666,667	57,142,858	50,000,000	44,444,445	40,000,000

The effectiveness of any one of these amendments and the abandonment of the other amendments, or the abandonment of all of these amendments, will be determined by the Board following the Special Meeting and prior to the Company's annual meeting of stockholders in 2020, or the 2020 Annual Meeting. The Board has recommended that these proposed amendments be presented to the Company's stockholders for approval.

Upon receiving stockholder approval of the proposed amendments in this Proposal 1, the Board will have the sole discretion, until the 2020 Annual Meeting, to elect, as it determines to be in the best interests of the Company and its stockholders, whether to effect a Reverse Stock Split and, if so, the number of shares—5, 6, 7, 8, 9 or 10—of common stock which will be combined into one share of common stock, as well as the corresponding reduction in the authorized number of shares of common stock, as applicable. The Board believes that stockholder approval of these six selected reverse split ratios (as opposed to approval of a single reverse split ratio) provides the Board with maximum flexibility to achieve the purposes of a Reverse Stock Split and, therefore, is in the best interests of the Company and its stockholders. The corresponding alternative reductions in the authorized common stock for reverse stock splits in the range of 1-for-5 to 1-for-10 are designed to ensure that the Company does not have what some stockholders might view as an unreasonably high number of authorized shares of common stock that are unissued or reserved for issuance.

If the Board determines to effect one of the alternative Reverse Stock Splits by filing the applicable amendment to the Certificate of Incorporation with the Secretary of State of the State of Delaware, the Certificate of Incorporation would be amended accordingly, and all other amendments will be abandoned, including the amendment approved pursuant to Proposal 2, if any. The text of the form of amendments to the Certificate of Incorporation, one of which would be filed with the Secretary of State of the State of Delaware to effect the Reverse Stock Split, are set forth in Appendices 1 through 6 to this Proxy Statement. However, such text is

subject to amendment to include such changes as may be required by the office of the Secretary of State of the State of Delaware or as the Board deems necessary and advisable to effect the Reverse Stock Split.

If the Board elects to effect a Reverse Stock Split following stockholder approval, for Reverse Stock Splits in the range of 1-for-5 to 1-for-10, the number of issued and outstanding shares of common stock would be reduced in accordance with a reverse split ratio selected by the Board from among those set forth in this Proposal 1. Except for adjustments that may result from the treatment of fractional shares as described below, each stockholder will hold the same percentage of outstanding common stock immediately following the Reverse Stock Split as such stockholder held immediately prior to the Reverse Stock Split.

If the Board fails to implement any of the Reverse Stock Splits before the 2020 Annual Meeting, further stockholder approval would be required prior to implementing any reverse stock split.

Purposes and Effect of the Reverse Stock Split

Although the proposed Reverse Stock Split will not have the effect of increasing the Company's equity market capitalization, we believe that implementing the Reverse Stock Split will provide benefits to the Company and our existing stockholders in a number of ways, including:

Increasing Authorized but Unissued Shares of Common Stock; Maximizing Value from Purchase Agreement

The primary purpose of the Reverse Stock Split is to increase the percentage of authorized but unissued shares of common stock. This increase in the percentage of authorized but unissued shares of common stock could provide us with the ability to reserve the number of shares required for the potential issuance of common stock upon the conversion and/or exercise of the securities issuable under the Purchase Agreement (described in more detail under Proposal 2 below) and with the appropriate flexibility to issue additional shares in the future on a timely basis if such need arises in connection with potential financings, business combinations or other corporate purposes. Approval of the Reverse Split Amendment could also enable us to take advantage of market conditions, the availability of more favorable financing, and opportunities for business combinations and other strategic transactions, without the potential delay and expense associated with convening a special stockholders' meeting. The purchasers under the Purchase Agreement have entered into voting agreements with us to vote all of their shares of common stock in favor of the Reverse Stock Split.

Compliance with Nasdaq Listing Requirements. In addition, our Board is recommending the Reverse Stock Split because it would decrease the total number of shares of common stock outstanding and proportionately increase the market price of our common stock above \$1.00 per share in order to remain in compliance with the continued listing requirements of the Nasdaq Global Market.

Stock Price Volatility. We have been advised 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.

Approval of Proposal 1 or Proposal 2 will be required for us to derive maximum value from a recently completed private placement financing. For this reason, if this Proposal 1 receives the required stockholder

approval, our Board intends to effect a Reverse Stock Split, regardless of then-perceived risk related to our ability (or inability) to meet the continued listing standards of the Nasdaq Global Market.

Our success also depends in part on our continued ability to attract, retain and motivate highly qualified management and key personnel, and if this Proposal 1 or Proposal 2 are not approved by our stockholders, the lack of unissued and unreserved authorized shares of common stock to provide future equity incentive opportunities could adversely impact our ability to achieve these goals. In short, if our stockholders do not approve this Proposal 1 or Proposal 2, we may not be able to access the capital markets, complete corporate collaborations or partnerships, attract, retain and motivate employees, and pursue other business opportunities integral to our growth and success.

The proposed increase in the relative number of authorized but unissued shares of common stock by way of the Reverse Stock Split will not, by itself, have an immediate dilutive effect on our current stockholders. However, the future issuance of additional shares of common stock or securities convertible into our common stock, including pursuant to the Purchase Agreement, may occur at times or under circumstances that could result in a dilutive effect on the earnings per share, book value per share, voting power and percentage interest of the present holders of our common stock, some of whom have preemptive rights to subscribe for additional shares that we may issue.

Reasons for the Decrease in Authorized Shares

As a matter of Delaware law, implementation of any of the Reverse Stock Split does not require a change in the total number of shares of our common stock authorized under our Certificate of Incorporation. However, for Reverse Stock Splits in the range of 1-for-5 to 1-for-10, the proposed corresponding alternative reductions in the authorized common stock are designed to ensure that the Company does not have what some stockholders might view as an unreasonably high number of authorized but unissued shares of common stock.

Board Discretion to Implement the Reverse Split Amendments

The Board believes that stockholder approval of a range of Reverse Stock Split ratios (rather than a single ratio) is in the best interests of our stockholders because it provides the Board with the flexibility to achieve the desired results of the Reverse Stock Split and because it is not possible to predict market conditions at the time the Reverse Stock Split would be implemented. If stockholders approve this proposal, the Board would carry out a Reverse Stock Split only upon the Board's determination that a Reverse Stock Split would be in the best interests of our stockholders at that time. The Board would then select one Reverse Stock Split approved by stockholders as it determines to be advisable and in the best interests of the stockholders considering relevant market conditions at the time the Reverse Stock Split is to be implemented. In determining the Reverse Stock Split ratio, following receipt of stockholder approval, the board of the directors may consider numerous factors including:

- the historical and projected performance of our common stock;
- general economic and other related conditions prevailing in our industry and in the marketplace;
- the projected impact of the Reverse Stock Split ratio on trading liquidity in our common stock and our ability to maintain continued listing on the Nasdaq Global Market;
- our capitalization (including the number of shares of common stock issued and outstanding);
- the then-prevailing trading price for our common stock and the volume level thereof; and
- the potential devaluation of our market capitalization as a result of the Reverse Stock Split.

The Board intends to select a Reverse Stock Split ratio that it believes would be most likely to achieve the anticipated benefits of the Reverse Stock Split.

Certain Risks Associated with the Reverse Stock Split

Before voting on this Proposal 1, stockholders should consider the following risks associated with effecting a Reverse Stock Split:

- Although we expect that a Reverse Stock Split will result in an increase in the market price of our common stock, we cannot assure you that a Reverse Stock Split, if effected, will increase the market price of our common stock in proportion to the reduction in the number of shares of our common stock outstanding or result in a permanent increase in the market price. The effect that a Reverse Stock Split may have upon the market price of our common stock cannot be predicted with any certainty, and the history of similar reverse stock splits for companies in similar circumstances to ours is varied. The market price of our common stock is dependent on many factors, including our business and financial performance, general market conditions, prospects for future growth and other factors detailed from time to time in the reports we file with the SEC. Accordingly, the total market capitalization of our common stock after a Reverse Stock Split may be lower than the total market capitalization before a Reverse Stock Split and, in the future, the market price of our common stock following a Reverse Stock Split may not exceed or remain higher than the market price prior to a Reverse Stock Split.
- Even if our stockholders approve a Reverse Stock Split and the Reverse Stock Split is effected, there can be no assurance that we will continue to meet the continued listing requirements of the Nasdaq Global Market.
- A Reverse Stock Split may result in some stockholders owning “odd lots” of less than 100 shares of common stock on a post-split basis. These odd lots may be more difficult to sell, or require greater transaction costs per share to sell, than shares in “round lots” of even multiples of 100 shares.
- Although the Board believes that the decrease in the number of shares of common stock outstanding as a consequence of a Reverse Stock Split and the anticipated increase in the market price of common stock could encourage interest in our common stock and possibly promote greater liquidity for stockholders, such liquidity could also be adversely affected by the reduced number of shares outstanding after the Reverse Stock Split.

Principal Effects of the Reverse Stock Split

If the Reverse Stock Split is approved and effected, each holder of common stock outstanding immediately prior to the effectiveness of the Reverse Stock Split will own a reduced number of shares of common stock upon effectiveness of the Reverse Stock Split. The Reverse Stock Split would be effected simultaneously for all outstanding shares of common stock at the same ratio. Except for adjustments that may result from the treatment of fractional shares (as described below), the Reverse Stock Split would affect all stockholders uniformly and would not change any stockholder’s percentage ownership interest in the Company. The relative voting rights and other rights and preferences that accompany the shares of common stock will not be affected by the Reverse Stock Split. Shares of common stock issued pursuant to the Reverse Stock Split will remain fully paid and nonassessable.

Because no fractional shares will be issued, holders of our common stock could be eliminated in the event that the proposed Reverse Stock Split is implemented. However, we are not proposing the Reverse Stock Split as the first step in a “going private” transaction.

Effect on Stock Awards, Equity Compensation Plans, Warrants and Convertible Preferred Stock

Under the terms of our outstanding equity awards and warrants, the proposed Reverse Stock Split would adjust and proportionately reduce the number of shares of common stock issuable upon exercise or vesting of such awards and warrants in the same ratio of the Reverse Stock Split (which may include rounding the number of shares of common stock issuable down to the nearest whole share) and, correspondingly, would

proportionately increase the per share exercise or purchase price, if any, of all such awards and warrants. The Reverse Stock Split would also reduce the number of shares of common stock available for issuance under the Company's equity compensation plan in proportion to the reverse split ratio of the Reverse Stock Split selected by the Board.

Pursuant to the terms of the Series 1 Preferred Stock, Series 2 Preferred Stock and Series 3 Preferred Stock (we which refer to collectively, as the Preferred Stock), the proposed Reverse Stock Split would adjust and proportionately reduce the number of shares of common stock issuable upon conversion of the Preferred Stock in proportion to the reverse split ratio of the Reverse Stock Split selected by the Board and, correspondingly, would proportionately increase the per share conversion price of such Preferred Stock.

The following table contains approximate information relating to our common stock under certain of the Reverse Split Amendments, based on share information as of November 22, 2019, without giving effect to the treatment of fractional shares or the effect of Proposal 3, if approved.

	November 22, 2019 ⁽¹⁾	1-for-5	1-for-8	1-for-10
Number of authorized shares of common stock	200,000,000	80,000,000	50,000,000	40,000,000
Number of outstanding shares of common stock	49,924,719	9,984,943	6,240,589	4,992,471
Number of shares of common stock reserved for conversion of outstanding preferred stock	51,150,000	10,230,000	6,393,750	5,115,000
Number of shares of common stock reserved for issuance upon exercise of outstanding warrants	57,500,000	11,500,000	7,187,500	5,750,000
Number of shares of common stock reserved for issuance upon exercise of outstanding stock options and the vesting of outstanding restricted stock units	6,904,729	1,380,945	863,091	690,472
Number of shares of common stock reserved for issuance in connection with future awards under our equity compensation plans	<u>3,739,622</u>	<u>747,924</u>	<u>467,452</u>	<u>373,962</u>
Number of authorized and unreserved shares of common stock not outstanding	30,780,930	46,156,188	28,847,618	23,078,095
Authorized but unissued and unreserved shares of common stock as a percentage of total authorized shares of common stock	15.4%	57.7%	57.7%	57.7%

- (1) Table does not include shares of common stock that may be required for issuance pursuant to the exercise or conversion of Preferred Stock and warrants issuable at the purchaser's option under the Purchase Agreement. As of November 22, 2019, if all options under the Purchase Agreement are fully exercised, an aggregate of 96,750,000 additional shares of our common stock (which number does not give effect to any Reverse Stock Split) will be required to be reserved.

Potential Anti-Takeover Effect

An increase in the number of authorized but unissued shares of common stock relative to the number of outstanding shares of common stock may also, under certain circumstances, be construed as having an anti-takeover effect. Although not designed or intended for such purposes, the effect of the proposed Reverse Stock Split might be to render more difficult or to discourage a merger, tender offer, proxy contest or change in control of us and the removal of management, which stockholders might otherwise deem favorable. For example, the authority of the Board to issue common stock might be used to create voting impediments or to frustrate an attempt by another person or entity to effect a takeover or otherwise gain control of us because the issuance of additional common stock would dilute the voting power of the common stock and preferred stock then

outstanding. Our common stock could also be issued to purchasers who would support the Board in opposing a takeover bid which our board determines not to be in our best interests and those of our stockholders.

In addition to the Reverse Split Amendment, our Certificate of Incorporation and Amended and Restated Bylaws also include other provisions that may have an anti-takeover effect. These provisions, among other things, permit our board to issue preferred stock with rights senior to those of the common stock without any further vote or action by the stockholders, provide that special meetings of stockholders may only be called by the Board and some of our officers, and do not provide for cumulative voting rights, which could make it more difficult for stockholders to effect certain corporation actions and may delay or discourage a change in control.

The Board is not presently aware of any attempt, or contemplated attempt, to acquire control of us and the Reverse Split Amendment is not part of any plan by the Board to recommend or implement a series of anti-takeover measures.

Accounting Matters

The Reverse Stock Split will not affect the par value per share of common stock, which will remain unchanged at \$0.01 per share. As a result of the Reverse Stock Split, at the effective time, the stated capital on our balance sheet attributable to the common stock, which consists of the par value per share of the common stock multiplied by the aggregate number of shares of the common stock issued and outstanding, will be reduced in proportion to the ratio of the Reverse Stock Split. Correspondingly, the additional paid-in capital account, which consists of the difference between the stated capital and the aggregate amount paid upon issuance of all currently outstanding shares of common stock, will be credited with the amount by which the stated capital is reduced. The stockholders' equity, in the aggregate, will remain unchanged. In addition, the per share net income or loss of common stock, for all periods, will be restated because there will be fewer outstanding shares of common stock.

Mechanics of the Reverse Stock Split

No Fractional Shares

We will not issue fractional shares in connection with the reverse stock split. Instead, any fractional share resulting from the reverse stock split because a stockholder owns a number of shares not evenly divisible by the ratio would instead will be paid in cash. The cash amount to be paid to each stockholder would be equal to the resulting fractional interest in one share of our common stock to which the stockholder would otherwise be entitled, multiplied by the closing trading price of our common stock on the Nasdaq Global Market on the effective date of the Reverse Stock Split. The ownership of a fractional interest will not give the holder thereof any voting, dividend or other right except to receive the cash payment therefore. Stockholders should be aware that, under the escheat laws of the various jurisdictions where stockholders reside, where we are domiciled and where the funds will be deposited, sums due for fractional interests that are not timely claimed after the effective time may be required to be paid to the designated agent for each such jurisdiction. Thereafter, stockholders otherwise entitled to receive such funds may have to seek to obtain them directly from the state to which they were paid. We do not anticipate that the aggregate cash amount paid by the Company for fractional interests will be material to the Company.

Effect on Beneficial Holders of Common Stock (i.e., stockholders who hold in "street name")

Upon the effectiveness of the Reverse Stock Split, we intend to treat shares of common stock held by stockholders in "street name," through a bank, broker or other nominee, in the same manner as registered stockholders whose shares of common stock are registered in their names. Banks, brokers or other nominees will be instructed to effect the Reverse Stock Split for their beneficial holders holding the common stock in "street name." However, these banks, brokers or other nominees may have different procedures than registered

stockholders for processing the Reverse Stock Split and making payment for fractional shares. If a stockholder holds shares of common stock with a bank, broker or other nominee and has any questions in this regard, stockholders are encouraged to contact their bank, broker or other nominee.

Effect on Registered “Book-Entry” Holders of Common Stock (i.e., stockholders that are registered on the transfer agent’s books and records but do not hold certificates)

Most of our registered holders of common stock hold some or all of their shares electronically in book-entry form with our transfer agent. These stockholders do not have stock certificates evidencing their ownership of the common stock. They are, however, provided with a statement reflecting the number of shares registered in their accounts.

If a stockholder holds registered shares in book-entry form with the transfer agent, no action needs to be taken to receive post-Reverse Stock Split shares or cash payment in lieu of any fractional share interest, if applicable. If a stockholder is entitled to post-Reverse Stock Split shares, a transaction statement will automatically be sent to the stockholder’s address of record indicating the number of shares of common stock held following the Reverse Stock Split.

If a stockholder is entitled to a cash payment in lieu of any fractional share interest, a check will be mailed to the stockholder’s registered address as soon as practicable after the effective date of the Reverse Stock Split. By signing and cashing the check, stockholders will warrant that they owned the shares of common stock for which they received a cash payment. The cash payment is subject to applicable federal and state income tax and state abandoned property laws.

Effect on Certificated Shares

Upon the Reverse Stock Split, our transfer agent will act as our exchange agent and act for holders of common stock in implementing the exchange of their certificates.

After the effective date of a Reverse Stock Split, stockholders holding shares in certificated form will be sent a transmittal letter by the transfer agent for our common stock. The letter of transmittal will contain instructions on how a stockholder should surrender his or her old certificates to the transfer agent in exchange for certificates representing the appropriate number of whole shares of post-Reverse Stock Split common stock, or the New Certificates. No New Certificates will be issued to a stockholder until that stockholder has surrendered all existing certificates, together with a properly completed and executed letter of transmittal, to the transfer agent. No stockholder will be required to pay a transfer or other fee to exchange the stockholder’s existing certificates.

Stockholders will then receive a New Certificate(s) representing the number of whole shares of common stock to which they are entitled as a result of the Reverse Stock Split. Until surrendered, we will deem outstanding existing certificates held by stockholders to be canceled and represent only the number of whole shares of post-Reverse Stock Split common stock to which these stockholders are entitled. Any certificates submitted for exchange, whether because of a sale, transfer or other disposition of stock, will automatically be exchanged for New Certificates. If any existing certificates have a restrictive legend on the back of the existing certificates, the New Certificate(s) will be issued with the same restrictive legends that are on the back of the existing certificates. If a stockholder is entitled to a payment in lieu of any fractional share interest, such payment will be made as described below under “No Fractional Shares.” **Stockholders should not destroy any stock certificate(s) and should not submit any certificate(s) until requested to do so.**

No Dissenters’ or Appraisal Rights

Under the DGCL, our stockholders are not entitled to any dissenters’ or appraisal rights with respect to the Reverse Stock Split, and we will not independently provide stockholders with any such right.

U.S. Federal Income Tax Considerations

The following is a summary of certain U.S. federal income tax consequences of the Reverse Stock Split to the Company and to stockholders that hold their common shares as capital assets for U.S. federal income tax purposes. This summary is based upon the provisions of the U.S. Internal Revenue Code, or the Code, Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as in effect as of the date hereof, and all of which are subject to change and differing interpretations, possibly with retroactive effect. Changes in these authorities or their interpretation may result in the U.S. federal income tax consequences of the Reverse Stock Split differing substantially from the consequences summarized below.

This summary is for general information purposes only and does not address all aspects of U.S. federal income taxation that may be relevant to stockholders in light of their particular circumstances or to stockholders that may be subject to special tax rules, including, without limitation: (i) persons subject to the alternative minimum tax; (ii) banks, insurance companies, or other financial institutions; (iii) tax-exempt organizations; (iv) dealers in securities or commodities; (v) regulated investment companies or real estate investment trusts; (vi) partnerships (including entities or arrangements treated as partnerships for U.S. federal income tax purposes and their partners or members); (vii) traders in securities that elect to use the mark-to-market method of accounting; (viii) persons whose “functional currency” is not the U.S. dollar; (ix) persons holding our common stock in a hedging transaction, “straddle,” “conversion transaction” or other risk reduction transaction; (x) persons who acquired our common stock in connection with employment or the performance of services; (xi) retirement plans; (xii) persons who are treated as non—U.S. persons for U.S. federal income tax purposes; or (xiv) certain former citizens or long-term residents of the United States.

In addition, this summary of certain U.S. federal income tax consequences does not address the tax consequences arising under the laws of any foreign, state or local jurisdiction or any U.S. federal tax consequences other than U.S. federal income taxation (such as U.S. federal estate and gift tax consequences). If a partnership (including any entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds shares of our common stock, the tax treatment of a partner in the partnership generally will depend upon the status of the partner and the activities of the partnership. Partnerships holding our common stock and the partners therein should consult their tax advisors regarding the tax consequences to them of the Reverse Stock Split.

We have not sought, and will not seek, an opinion of counsel or a ruling from the Internal Revenue Service, or the IRS, regarding the U.S. federal income tax consequences of the Reverse Stock Split and there can be no assurance that the IRS will not challenge the statements and conclusions set forth below or that a court would not sustain any such challenge.

EACH STOCKHOLDER SHOULD CONSULT ITS TAX ADVISORS WITH RESPECT TO THE PARTICULAR TAX CONSEQUENCES OF THE REVERSE STOCK SPLIT TO SUCH STOCKHOLDER.

Taxation of Stockholders

The Reverse Stock Split should constitute a “recapitalization” for U.S. federal income tax purposes. As a recapitalization, except as described below with respect to cash received in lieu of fractional shares, a stockholder should not recognize gain or loss as a result of the Reverse Stock Split. A stockholder’s aggregate tax basis in the shares of the common stock received pursuant to the Reverse Stock Split should equal the stockholder’s aggregate tax basis in the shares of the common stock surrendered, and such stockholder’s holding period in the shares of the common stock received should include the holding period of the shares of the common stock surrendered. Treasury regulations promulgated under the Code provide detailed rules for allocating the tax basis and holding period of shares of common stock surrendered pursuant to the Reverse Stock Split to shares of common stock received pursuant to the Reverse Stock Split. Stockholders holding shares of common stock that were 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 stockholder who receives cash in lieu of a fractional share of common stock should be treated as first receiving such fractional share and then receiving cash in redemption of such fractional share. A stockholder who receives cash in lieu of a fractional share in the Reverse Stock Split should recognize capital gain or loss equal to the difference between the amount of the cash received in lieu of the fractional share and the portion of the stockholder's adjusted tax basis allocable to the fractional share, unless the distribution of cash is treated as having the effect of a distribution of dividend to the stockholder, in which case the gain should be treated as dividend income to the extent of the Company's current accumulated earnings and profits, as calculated for U.S. federal income tax purposes. Stockholders should consult their tax advisors regarding the tax effects to them of receiving cash in lieu of fractional shares based on their particular circumstances.

A stockholder may be subject to information reporting with respect to any cash received in exchange for a fractional share interest in a new share in the Reverse Stock Split. Stockholders who are subject to information reporting and who do not provide a correct taxpayer identification number and other required information (such as by submitting a properly completed Internal Revenue Service Form W-9) may also be subject to backup withholding, at the applicable rate. Any amount withheld under such rules is not an additional tax and may be refunded or credited against the stockholder's U.S. federal income tax liability, provided that the required information is properly furnished in a timely manner to the Internal Revenue Service.

Taxation of the Company

The Company should not recognize any gain or loss as a result of the Reverse Stock Split.

Vote Required

Approval of the Reverse Stock Split Proposal requires "FOR" votes, cast either in person or by proxy, of a majority of the outstanding shares of our common stock. Abstentions will have the same effect as an "against" vote on this proposal. As noted above, we believe that this proposal will be considered a "routine" matter and, as a result, we do not expect there to be any broker non-votes on this proposal. If, however, a broker non-vote occurs (or if your shares are not affirmatively voted in favor of this proposal for any other reason), it will have the same effect as an "against" vote on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE FOR THE REVERSE STOCK SPLIT PROPOSAL (PROPOSAL 1).

PROPOSAL 2

APPROVAL OF THE INCREASE IN NUMBER OF AUTHORIZED SHARES OF COMMON STOCK PROPOSAL

General

The Board has approved an amendment to our Certificate of Incorporation, or the Authorized Shares Amendment, to increase the number of authorized shares of common stock from 200,000,000 to 400,000,000. The Authorized Shares Amendment will not change the number of authorized shares of preferred stock, which currently consists of 10,000,000 shares of preferred stock. The implementation of this Proposal 2 is expressly conditioned upon the failure to obtain approval or implementation of Proposal 1; if Proposal 1 is approved and implemented, then this Proposal 2 will not be implemented.

The additional shares of common stock authorized for issuance by the Authorized Shares Amendment would be a part of the existing class of common stock and, if and when issued, would have the same rights and privileges as the common stock presently issued and outstanding. The full text of the proposed Authorized Shares Amendment is attached to this Proxy Statement as Appendix 7. However, the text of the Authorized Shares Amendment is subject to revision to include such changes as may be required by the Secretary of State of the State of Delaware and as the Board deems necessary and advisable to effect the proposed amendment of the Certificate of Incorporation.

Provided the stockholders approve the Authorized Shares Amendment, the increased number of shares would be authorized for issuance, but would remain unissued until such time as the Board approves a specific issuance of shares. Other than to permit the conversion of all outstanding shares of preferred stock, the exercise of all outstanding warrants, future issuances under the Company's equity compensation plans and future issuances of the Company's securities under the Purchase Agreement (described below), the Company currently has no plans or arrangements to issue the additional authorized shares of common stock that will result in the event that the Company's stockholders approve, and the Company implements, the Authorized Shares Amendment.

Adoption of the Authorized Shares Amendment would not affect the rights of the holders of currently outstanding common stock, except for effects incidental to increasing the number of shares of our common stock outstanding, such as dilution of the earnings per share and voting rights of current holders of common stock, to the extent that any additional shares of common stock are ultimately issued out of the increase in authorized shares proposed in the Authorized Shares Amendment.

If the proposed Authorized Shares Amendment is approved by the requisite vote of the stockholders, it will become effective upon the filing of a Certificate of Amendment with the Secretary of State of the State of Delaware. The Board reserves its right to elect not to proceed with and abandon the Authorized Shares Amendment if it determines, in its sole discretion at any time, that this proposal is no longer in the best interests of our stockholders.

If we fail to obtain stockholder approval of either Proposal 1 or Proposal 2 at the Special Meeting, we intend to continue to seek to obtain stockholder approval at each subsequent annual meeting of stockholders and/or special meetings of stockholders until such approval has been obtained and we will incur the costs associated therewith.

Background

In addition to the 49,924,719 shares of common stock outstanding on November 22, 2019, the Company has also reserved 57,500,000 shares for issuance upon the exercise of outstanding warrants, 51,150,000 shares for issuance upon the conversion of outstanding shares of preferred stock, 148,593 shares for issuance upon the

vesting of outstanding restricted stock units, 6,756,136 shares for issuance upon the exercise of outstanding stock options and 3,739,622 shares for issuance pursuant to the Company's equity incentive and employee stock purchase plans (in each case these amounts are before any adjustment for any Reverse Stock Split). The Board has also authorized the Company to issue and sell shares of its convertible preferred stock and warrants to purchase shares common stock pursuant to that certain Securities Purchase Agreement, dated as of August 16, 2019, or the Purchase Agreement, which requires the reservation of an aggregate of 96,750,000 additional shares of our common stock for potential issuance upon the conversion and/or exercise of the securities issuable under the Purchase Agreement (which number does not give effect to any Reverse Stock Split).

Purposes and Effects of the Authorized Shares Amendment

The Board is recommending the proposed increase in the authorized number of shares of common stock to provide the Company with appropriate flexibility to issue additional shares in the future on a timely basis if such need arises in connection with potential financings, business combinations or other corporate purposes and to reserve the number of shares required for potential issuance upon the conversion and/or exercise of the securities issuable under the Purchase Agreement. Approval of the Authorized Shares Amendment could enable the Company to take advantage of market conditions, the availability of more favorable financing, and opportunities for business combinations and other strategic transactions, without the potential delay and expense associated with convening a special stockholders' meeting.

Approval of Proposal 1 or Proposal 2 will be required for us to derive maximum value from the private placement financing governed by the Purchase Agreement, pursuant to which we agreed to issue: (i) 350,000 shares of our Series 2 Redeemable Convertible Non-Voting Preferred Stock, at a purchase price of \$100.00 per share, and related warrants to purchase up to 28,000,000 shares of our Common Stock at an exercise price of \$1.00 per share; and (ii) 250,000 shares of our Series 3 Redeemable Convertible Non-Voting Preferred Stock, at a purchase price of \$140.00 per share, and related warrants to purchase up to 8,750,000 shares of our Common Stock at an exercise price of \$1.40 per share (which numbers do not give effect to any Reverse Stock Split). Any purchase and sale of the securities issuable under the Purchase Agreement may occur in two or more separate closings, each to be conducted at the purchasers' discretion within five days' notice, is subject to the Company obtaining stockholder approval for additional authorized shares of common stock, and the right to purchase such securities expires two and a half years after such stockholder approval, with respect to the Series 2 Preferred, and three years after such stockholder approval, with respect to the Series 3 Preferred, if not exercised prior to that date. The purchasers under the Purchase Agreement have entered into voting agreements with us to vote all of their shares of common stock in favor of the Authorized Shares Amendment.

Our success also depends in part on our continued ability to attract, retain and motivate highly qualified management and key personnel, and if Proposal 1 or Proposal 2 are not approved by our stockholders, the lack of unissued and unreserved authorized shares of common stock to provide future equity incentive opportunities could adversely impact our ability to achieve these goals. In short, if our stockholders do not approve Proposal 1 or Proposal 2, we may not be able to access the capital markets, complete corporate collaborations or partnerships, attract, retain and motivate employees, and pursue other business opportunities integral to our growth and success.

The proposed increase in the number of authorized shares of common stock will not, by itself, have an immediate dilutive effect on our current stockholders. However, if Proposal 2 is approved, unless otherwise required by applicable law or stock exchange rules, the Board will be able to issue the additional shares of common stock from time to time in its discretion without further action or authorization by the stockholders. The newly authorized shares of common stock would be issuable for any proper corporate purpose, including capital raising transactions of equity or convertible debt securities, the establishment of collaborations or other strategic agreements, stock splits, stock dividends, issuance under current or future equity incentive plans, future acquisitions, investment opportunities, or for other corporate purposes. The future issuance of additional shares of common stock or securities convertible into our common stock, including pursuant to the Purchase

Agreement, may occur at times or under circumstances that could result in a dilutive effect on the earnings per share, book value per share, voting power and percentage interest of the present holders of our common stock, some of whom have preemptive rights to subscribe for additional shares that we may issue.

Potential Anti-Takeover Effect

An increase in the number of authorized shares of common stock may also, under certain circumstances, be construed as having an anti-takeover effect. Although not designed or intended for such purposes, the effect of the proposed increase might be to render more difficult or to discourage a merger, tender offer, proxy contest or change in control of us and the removal of management, which stockholders might otherwise deem favorable. For example, the authority of the Board to issue common stock might be used to create voting impediments or to frustrate an attempt by another person or entity to effect a takeover or otherwise gain control of us because the issuance of additional common stock would dilute the voting power of the common stock then outstanding. Our common stock could also be issued to purchasers who would support the Board in opposing a takeover bid which our board determines not to be in our best interests and those of our stockholders. In addition to the Authorized Shares Amendment, the Company's Certificate of Incorporation and Amended and Restated Bylaws also include other provisions that may have an anti-takeover effect. These provisions, among other things, permit our board to issue preferred stock with rights senior to those of the common stock without any further vote or action by the stockholders, provide that special meetings of stockholders may only be called by the Board and some of our officers, and do not provide for cumulative voting rights, which could make it more difficult for stockholders to effect certain corporation actions and may delay or discourage a change in control. The Board is not presently aware of any attempt, or contemplated attempt, to acquire control of the Company and the Authorized Shares Amendment is not part of any plan by the Board to recommend or implement a series of anti-takeover measures.

Vote Required

Approval of the Increase in Number of Authorized Shares of Common Stock Proposal requires "FOR" votes, cast either in person or by proxy, of a majority of the outstanding shares of our common stock. Abstentions will have the same effect as an "against" vote on this proposal. As noted above, we believe that this proposal will be considered a "routine" matter and, as a result, we do not expect there to be any broker non-votes on this proposal. If, however, a broker non-vote occurs (or if your shares are not affirmatively voted in favor of this proposal for any other reason), it will have the same effect as an "against" vote on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE *FOR* APPROVAL OF THE INCREASE IN NUMBER OF AUTHORIZED SHARES OF COMMON STOCK PROPOSAL (PROPOSAL 2).

PROPOSAL 3

APPROVAL OF THE EQUITY INCENTIVE PLAN PROPOSAL

On _____, 2019, the Board approved, subject to stockholder approval, amendments to the Bellicum Pharmaceuticals, Inc. 2019 Equity Incentive Plan, or the 2019 Plan. The 2019 Plan was originally adopted by our stockholders on June 13, 2019, as a successor to and continuation of the Bellicum Pharmaceuticals, Inc. 2014 Equity Incentive Plan, as amended, or the 2014 Plan. In this proposal, our stockholders are being asked to approve the 2019 Plan, as amended, or the Amended 2019 Plan, which contains the following material changes to the 2019 Plan:

- an increase to the number of shares of common stock authorized for issuance under the 2019 Plan by 6,000,000 shares (before any adjustment to reflect the Reverse Stock Split); and
- a corresponding increase to the number of shares of common stock authorized for issuance under the 2019 Plan pursuant to the exercise of incentive stock options (ISOs) by 12,000,000 shares (before any adjustment to reflect the Reverse Stock Split).

Why We Are Asking Our Stockholders to Approve the Amended 2019 Plan

Equity awards have been historically and, we believe, will continue to be, an integral component of our overall compensation program for our employees and directors. Currently, we maintain the 2019 Plan to grant stock options, restricted stock unit awards and other forms of equity-based awards to our employees, directors and consultants. The Amended 2019 Plan will provide us with the shares necessary to continue to grant equity awards at levels we determine to be appropriate in order to attract new employees and directors, retain our existing employees and directors and to provide incentives for such persons to exert maximum efforts for our success.

We believe it is critical for our long-term success that the interests of our employees and directors are tied to our success as “owners” of our business. The equity incentive programs we have in place are intended to build stockholder value by attracting and retaining talented employees and directors. We believe we must continue to offer competitive equity compensation packages in order to retain and motivate the talent necessary for our continued growth and success. We carefully monitor the equity compensation and equity holdings of our employees, directors and consultants as well as the type of equity awards we grant to ensure these awards continue to provide incentives for the recipients to work towards our success. Traditionally, stock options have been the primary component of our equity program. The potential value of stock options is realized only if our share price increases, and so stock options provide a strong incentive for individuals to work to build stockholder value. In the last several years, we have also granted restricted stock unit awards to certain employees at levels that minimize dilution with an appreciation of the value transfer.

We believe that the shares currently available for grant under the 2019 Plan will be insufficient to meet our anticipated retention and recruiting needs, particularly in light of the dilution resulting from the public offering of our securities in August 2019 and anticipated to result from the issuance of additional securities pursuant to the Purchase Agreement, our expected growth and hiring needs and our ability to offer equity incentives to new hires that are consistent with our historical equity incentives. We expect to experience targeted growth in personnel as we progress our business and expand our pipeline. As of November 22, 2019, 3,140,585 shares remained available for future grant under the 2019 Plan, 224,400 shares remained available for grant under the inducement award pool under the 2019 Plan and outstanding stock awards granted under the 2019 Plan (which consist of stock options and restricted stock unit awards) covered 6,904,729 shares.

The increased number of shares we are seeking under the Amended 2019 Plan will enable us to have a competitive equity incentive program to retain and motivate our key employees and other service providers and, to the extent necessary, recruit top talent as necessary to execute on our business plan.

The Size of Our Share Request Is Reasonable and We Manage Our Equity Award Use Carefully

We continue to believe that equity incentive awards such as stock options and restricted stock unit awards are a vital part of our overall compensation program. Our compensation philosophy reflects broad-based eligibility for equity incentive awards, and we grant awards to substantially all of our employees and non-employee directors. However, we recognize that equity incentive awards dilute existing stockholders, and, therefore, we must responsibly manage the growth of our equity compensation program.

We have managed our long-term stockholder dilution by limiting the number of equity incentive awards granted. The Board and the Compensation Committee of the Board, or the Compensation Committee, monitors our stock award burn rate and dilution, among other factors, in its efforts to maximize stockholders' value by granting what, in the Board's or Compensation Committee's judgment, are the appropriate number of equity incentive awards necessary to attract, reward, and retain employees, consultants and directors based on the Company's business plan and anticipated grants.

As of November 22, 2019, the record date for the Special Meeting, the per-share closing price of our common stock as reported on Nasdaq Global Market was \$0.86 and there were 49,924,719 shares of our common stock outstanding. As of the record date, the 6,000,000 new shares we are asking for under the Amended 2019 Plan represents approximately 12.02% of our common stock outstanding and approximately 3.55% of our common stock, calculated on a fully-diluted basis and including for the purposes of such calculation: (i) the vesting and exercise, in full, of all outstanding stock awards; (ii) the exercise, in full, of all outstanding warrants to purchase common stock (disregarding any exercise limitations contained therein); and (iii) the conversion, in full, of all outstanding shares of Preferred Stock into shares of common stock (disregarding any conversion limitations contained therein). If our stockholders do not approve this Proposal 3, the Company strongly believes that it will be unable to successfully use equity as part of its compensation program, as most of its competitors in the industry do, putting the Company at a significant disadvantage and compromising its ability to enhance stockholder value. Therefore, we believe that approval of this request is in the best interest of our stockholders and our Company.

If this Proposal 3 is approved by our stockholders, the Amended 2019 Plan will become effective as of the date of the Special Meeting. In the event that our stockholders do not approve this Proposal 3, the Amended 2019 Plan will not become effective, and the 2019 Plan (including the inducement award pool under the 2019 Plan) will continue to be effective in accordance with its terms.

Our Amended 2019 Plan Contains Key Features Designed to Protect Stockholders' Interests

The 2019 Plan includes provisions that are designed to protect our stockholders' interests and to reflect corporate governance best practices, which we will continue in the Amended 2019 Plan, including:

- *No "evergreen" provision for additional shares.* The Amended 2019 Plan does not contain an annual "evergreen" provision. Therefore, the share reserve will not increase automatically on an annual basis.
- *No liberal share counting or recycling.* The following shares will not become available again for issuance under the Amended 2019 Plan: (i) shares that are reacquired or withheld (or not issued) by us to satisfy the exercise or purchase price of a stock award; (ii) shares that are reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with a stock award; (iii) any shares repurchased by us on the open market with the proceeds of the exercise or purchase price of a stock award and (iv) in the event a stock appreciation right is settled in shares, the gross number of shares subject to such award.
- *Repricing is not allowed without stockholder approval.* The Amended 2019 Plan expressly prohibits the repricing of outstanding stock options and stock appreciation rights and the cancellation of any

outstanding stock options or stock appreciation rights that have an exercise or strike price greater than the then-current fair market value of our common stock in exchange for cash or other stock awards under the Amended 2019 Plan without prior stockholder approval.

- *No discounted stock options or stock appreciation rights.* All stock options and stock appreciation rights granted under the Amended 2019 Plan must have an exercise price equal to or greater than the fair market value of our common stock on the date the stock option or stock appreciation right is granted.
- *Limited discretion to accelerate vesting of awards.* The Amended 2019 Plan provides that the Board or Compensation Committee may not accelerate the vesting of outstanding awards after they have been granted, except in connection with a corporate transaction or change in control, or upon the death or disability of the participant.
- *Minimum vesting requirements.* The Amended 2019 Plan provides that no award may vest until at least 12 months following the date of grant of such award, except that up to 5% of the total shares authorized for issuance under the Amended 2019 Plan may be subject to awards that do not meet such vesting requirements.
- *Limit on non-employee director compensation.* The aggregate value of all compensation granted or paid in any calendar year to any individual for service as a non-employee director, including stock awards granted under the Amended 2019 Plan or otherwise, and any cash fees paid by the Company to such non-employee director, will not exceed \$600,000 in total value, or \$1,000,000 with respect to the calendar year in which the individual is first appointed or elected to the Board (calculating the value of any such stock awards based on the grant date fair value of such stock awards for financial reporting purposes).
- *Awards subject to forfeiture/clawback.* Awards granted under the Amended 2019 Plan are subject to recoupment in accordance with the terms of our clawback policy, and in addition, any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Board may impose other clawback, recovery or recoupment provisions in an award agreement, including a reacquisition right in respect of previously acquired shares or other cash or property upon the occurrence of cause.
- *No liberal change in control definition.* The change in control definition in the Amended 2019 Plan is not a “liberal” definition. A change in control transaction must actually occur in order for the change in control provisions in the 2019 Plan to be triggered.
- *Restrictions on dividends.* The Amended 2019 Plan provides that (i) no dividends or dividend equivalents may be paid with respect to any shares of our common stock subject to an award before the date such shares have vested, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of the applicable award agreement (including any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to us on the date such shares are forfeited to or repurchased by us due to a failure to vest.

Description of the Amended 2019 Plan

The material features of the Amended 2019 Plan are outlined below. The following description of the Amended 2019 Plan is a summary only and is qualified in its entirety by reference to the complete text of the Amended 2019 Plan. Stockholders are urged to read the actual text of the Amended 2019 Plan in its entirety, a copy of which is attached to this Proxy Statement as Appendix 8.

Purpose

The Amended 2019 Plan is designed to secure and retain the services of our employees and directors, provide incentives for our employees and directors to exert maximum efforts for the success of the Company and its affiliates, and provide a means by which our employees and directors may be given an opportunity to benefit from increases in the value of our common stock.

Types of Awards

The Amended 2019 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, and other stock awards.

Shares Available for Awards (before any adjustment to reflect the Reverse Stock Split)

Subject to adjustment for certain changes in our capitalization, including the Reverse Stock Split, the aggregate number of shares of our common stock that may be issued under the Amended 2019 Plan, or the Share Reserve, will not exceed the sum of (i) 6,000,000 new shares *plus* (ii) 2,500,000 shares approved at our 2019 Annual Stockholders' Meeting *plus* (iii) the Prior Plans' Returning Shares (as defined below) in an amount not to exceed 6,005,401 shares, as such shares become available from time to time. In addition, subject to adjustment for certain changes in our capitalization, including the Reverse Stock Split, 224,400 shares are available for the grant of new stock awards pursuant to the 2019 Plan's inducement award pool under the 2019 Plan, which are available exclusively for the grant of inducement awards to employees who have not previously been our employee or non-employee director (or following a bona fide period of non-employment) as an inducement material to entering into employment with us, in compliance with NASDAQ Listing Rule 5635(c)(4). The shares available for inducement awards have not been approved by our stockholders.

The term "Prior Plans' Returning Shares" refers to the following shares of our common stock subject to any stock award granted under the Bellicum Pharmaceuticals, Inc. 2014 Equity Incentive Plan, as amended, or the 2014 Plan, the Bellicum Pharmaceuticals, Inc. 2011 Stock Option Plan, as amended, or the 2011 Plan, and the Bellicum Pharmaceuticals, Inc. 2006 Stock Option Plan, as amended, or the 2006 Plan, and together with the 2014 Plan and 2011 Plan, the Prior Plans, that were outstanding as of June 13, 2019, the date the 2019 Plan was approved by our stockholders: (i) any shares subject to such stock award that are not issued because such stock award expires or otherwise terminates without all of the shares covered by such stock award having been issued; (ii) any shares subject to such stock award that are not issued because such stock award is settled in cash; and (iii) any shares issued pursuant to such stock award that are forfeited back to or repurchased by us because of a failure to vest.

The following shares of our common stock, or collectively, the 2019 Plan Returning Shares, will also become available again for issuance under the Amended 2019 Plan: (i) any shares subject to a stock award granted under the Amended 2019 Plan that are not issued because such stock award expires or otherwise terminates without all of the shares covered by such stock award having been issued; (ii) any shares subject to a stock award granted under the Amended 2019 Plan that are not issued because such stock award is settled in cash; and (iii) any shares issued pursuant to a stock award granted under the Amended 2019 Plan that are forfeited back to or repurchased by us because of a failure to vest.

The following shares of our common stock will not become available again for issuance under the Amended 2019 Plan: (i) any shares that are reacquired or withheld (or not issued) by us to satisfy the exercise, strike or purchase price of a stock award granted under the Amended 2019 Plan or any Prior Plan (including any shares subject to such award that are not delivered because such award is exercised through a reduction of shares subject to such award); (ii) any shares that are reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with a stock award granted under the Amended 2019 Plan or any Prior Plan; (iii) any

shares repurchased by us on the open market with the proceeds of the exercise, strike or purchase price of a stock award granted under the Amended 2019 Plan or any Prior Plan; and (iv) in the event that a stock appreciation right granted under the Amended 2019 Plan or any Prior Plan is settled in shares, the gross number of shares subject to such award.

The number of shares of our common stock available for issuance under the Amended 2019 Plan will be reduced by: (i) one share for each share issued pursuant to a stock option or stock appreciation right with an exercise price that is at least 100% of the fair market value of our common stock on the date of grant, or an Appreciation Award, granted under the Amended 2019 Plan; and (ii) 1.25 shares for each share issued pursuant to a stock award that is not an Appreciation Award, or a Full Value Award, granted under the Amended 2019 Plan.

The number of shares of our common stock available for issuance under the Amended 2019 Plan will be increased by: (i) one share for each Prior Plans' Returning Share or 2019 Plan Returning Share subject to an Appreciation Award; and (ii) 1.25 shares for each Prior Plans' Returning Share or 2019 Plan Returning Share subject to a Full Value Award.

Eligibility

All of our (including our affiliates') employees, consultants and non-employee directors are eligible to participate in the Amended 2019 Plan and may receive all types of awards other than incentive stock options. Incentive stock options may be granted under the Amended 2019 Plan only to our (including our affiliates') employees.

As of November 22, 2019, we (including our affiliates) had 129 employees, approximately 50 consultants and seven non-employee directors.

Non-Employee Director Compensation Limit

Under the Amended 2019 Plan, the aggregate value of all compensation granted or paid in any calendar year to any individual for service as a non-employee director, including stock awards granted under the Amended 2019 Plan or otherwise, and any cash fees paid by the Company to such non-employee director, will not exceed \$600,000 in total value, or \$1,000,000 with respect to the calendar year in which the individual is first appointed or elected to the Board (calculating the value of any such stock awards based on the grant date fair value of such stock awards for financial reporting purposes).

Administration

The Amended 2019 Plan will be administered by our Board, which may in turn delegate authority to administer the Amended 2019 Plan to a committee. Our Board has delegated concurrent authority to administer the Amended 2019 Plan to our Compensation Committee. Our Board and Compensation Committee are each considered to be a Plan Administrator for purposes of this Proposal 3.

Subject to the terms of the Amended 2019 Plan, the Plan Administrator may determine the recipients, the types of awards to be granted, the number of shares of our common subject to or the cash value of awards, and the terms and conditions of awards granted under the Amended 2019 Plan, including the period of their exercisability and vesting. The Plan Administrator also has the authority to provide for accelerated exercisability and vesting of awards, provided that the Plan Administrator may not accelerate the vesting of outstanding awards after they have been granted other than in connection with a corporate transaction or a change in control, or upon the death or disability of the participant. Subject to the limitations set forth below, the Plan Administrator also determines the fair market value applicable to a stock award and the exercise or strike price of stock options and stock appreciation rights granted under the Amended 2019 Plan.

The Plan Administrator may also delegate to one or more officers the authority to designate employees who are not officers to be recipients of certain stock awards and the number of shares of our common stock subject to such stock awards. Under any such delegation, the Plan Administrator will specify the total number of shares of our common stock that may be subject to the stock awards granted by such officer. The officer may not grant a stock award to himself or herself.

Repricing; Cancellation and Re-Grant of Stock Awards

Under the Amended 2019 Plan, the Plan Administrator does not have the authority to reprice any outstanding stock option or stock appreciation right by reducing the exercise or strike price of the stock option or stock appreciation right or to cancel any outstanding stock option or stock appreciation right that has an exercise or strike price greater than the then-current fair market value of our common stock in exchange for cash or other stock awards without obtaining the approval of our stockholders. Such approval must be obtained within 12 months prior to such an event.

Minimum Vesting Requirements

Under the Amended 2019 Plan, no award may vest until at least 12 months following the date of grant of such award, except that up to 5% of the Share Reserve of the Amended 2019 Plan may be subject to awards that do not meet such vesting requirements.

Dividends and Dividend Equivalents

The Amended 2019 Plan provides that dividends or dividend equivalents may be paid or credited with respect to any shares of our common stock subject to an award, as determined by the Plan Administrator and contained in the applicable award agreement; *provided, however*, that (i) no dividends or dividend equivalents may be paid with respect to any such shares before the date such shares have vested, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of the applicable award agreement (including any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to us on the date such shares are forfeited to or repurchased by us due to a failure to vest.

Limited Discretion to Accelerate Vesting

The Amended 2019 Plan provides that, except in connection with a corporate transaction or a change in control, or the death or disability of a participant after the time an award has been granted, the Plan Administrator may not accelerate the time or times at which the award vests or becomes exercisable.

Stock Options

Stock options may be granted under the Amended 2019 Plan pursuant to stock option agreements. The Amended 2019 Plan permits the grant of stock options that are intended to qualify as incentive stock options, or ISOs, and nonstatutory stock options, or NSOs.

The exercise price of a stock option granted under the Amended 2019 Plan may not be less than 100% of the fair market value of our common stock on the date of grant and, in some cases (see "Limitations on Incentive Stock Options" below), may not be less than 110% of such fair market value.

The term of stock options granted under the Amended 2019 Plan may not exceed ten years and, in some cases (see "Limitations on Incentive Stock Options" below), may not exceed five years. Except as otherwise provided in a participant's stock option agreement or other written agreement with us or one of our affiliates, if a participant's service relationship with us or any of our affiliates (referred to in this Proposal 3 as "continuous

service”) terminates (other than for cause and other than upon the participant’s death or disability), the participant may exercise any vested stock options for up to three months following the participant’s termination of continuous service. Except as otherwise provided in a participant’s stock option agreement or other written agreement with us or one of our affiliates, if a participant’s continuous service terminates due to the participant’s disability or death (or the participant dies within a specified period, if any, following termination of continuous service), the participant, or his or her beneficiary, as applicable, may exercise any vested stock options for up to 12 months following the participant’s termination due to the participant’s disability or for up to 18 months following the participant’s death. Except as explicitly provided otherwise in a participant’s stock option agreement or other written agreement with us or one of our affiliates, if a participant’s continuous service is terminated for cause (as defined in the Amended 2019 Plan), all stock options held by the participant will terminate upon the participant’s termination of continuous service and the participant will be prohibited from exercising any stock option from and after such termination date. The term of a stock option may be extended if the exercise of the stock option following the participant’s termination of continuous service (other than for cause and other than upon the participant’s death or disability) would be prohibited by applicable securities laws or, unless otherwise provided in a participant’s stock option agreement, if the sale of any common stock received upon exercise of the stock option following the participant’s termination of continuous service (other than for cause) would violate our insider trading policy. In no event, however, may a stock option be exercised after its original expiration date.

Acceptable forms of consideration for the purchase of our common stock pursuant to the exercise of a stock option under the Amended 2019 Plan will be determined by the Plan Administrator and may include payment: (i) by cash, check, bank draft or money order payable to us; (ii) pursuant to a program developed under Regulation T promulgated by the Federal Reserve Board; (iii) by delivery to us of shares of our common stock (either by actual delivery or attestation); (iv) by a net exercise arrangement (for NSOs only); or (v) in other legal consideration approved by the Plan Administrator.

Stock options granted under the Amended 2019 Plan may vest and become exercisable in cumulative increments, as determined by the Plan Administrator at the rate specified in the stock option agreement (subject to the limitations described in “Minimum Vesting Requirements” above). Shares covered by different stock options granted under the Amended 2019 Plan may be subject to different vesting schedules as the Plan Administrator may determine.

The Plan Administrator may impose limitations on the transferability of stock options granted under the Amended 2019 Plan in its discretion. Generally, a participant may not transfer a stock option granted under the Amended 2019 Plan other than by will or the laws of descent and distribution or, subject to approval by the Plan Administrator, pursuant to a domestic relations order or an official marital settlement agreement. However, the Plan Administrator may permit transfer of a stock option in a manner that is not prohibited by applicable tax and securities laws. In addition, subject to approval by the Plan Administrator, a participant may designate a beneficiary who may exercise the stock option following the participant’s death. Notwithstanding the foregoing, no option may be transferred to any financial institution without prior stockholder approval.

Limitations on Incentive Stock Options

The aggregate fair market value, determined at the time of grant, of shares of our common stock with respect to ISOs that are exercisable for the first time by a participant during any calendar year under all of our stock plans may not exceed \$100,000. The stock options or portions of stock options that exceed this limit or otherwise fail to qualify as ISOs are treated as NSOs. No ISO may be granted to any person who, at the time of grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any affiliate unless the following conditions are satisfied:

- the exercise price of the ISO must be at least 110% of the fair market value of our common stock on the date of grant; and
- the term of the ISO must not exceed five years from the date of grant.

Subject to adjustment for certain changes in our capitalization, including the Reverse Stock Split, the aggregate maximum number of shares of our common stock that may be issued pursuant to the exercise of ISOs under the Amended 2019 Plan is 29,010,802 shares (before any adjustment to reflect the Reverse Stock Split).

Stock Appreciation Rights

Stock appreciation rights may be granted under the Amended 2019 Plan pursuant to stock appreciation right agreements. Each stock appreciation right is denominated in common stock share equivalents. The strike price of each stock appreciation right will be determined by the Plan Administrator, but will in no event be less than 100% of the fair market value of our common stock on the date of grant. The Plan Administrator may also impose restrictions or conditions upon the vesting of stock appreciation rights that it deems appropriate. The appreciation distribution payable upon exercise of a stock appreciation right may be paid in shares of our common stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the stock appreciation right agreement. Stock appreciation rights will be subject to the same conditions upon termination of continuous service and restrictions on transfer as stock options under the Amended 2019 Plan.

Restricted Stock Awards

Restricted stock awards may be granted under the Amended 2019 Plan pursuant to restricted stock award agreements. A restricted stock award may be granted in consideration for cash, check, bank draft or money order payable to us, the participant's services performed for us or any of our affiliates, or any other form of legal consideration acceptable to the Plan Administrator. Shares of our common stock acquired under a restricted stock award may be subject to forfeiture to or repurchase by us in accordance with a vesting schedule to be determined by the Plan Administrator (subject to the limitations described in "Minimum Vesting Requirements" above). Rights to acquire shares of our common stock under a restricted stock award may be transferred only upon such terms and conditions as are set forth in the restricted stock award agreement; *provided, however*, that no restricted stock award may be transferred to any financial institution without prior stockholder approval. Upon a participant's termination of continuous service for any reason, any shares subject to restricted stock awards held by the participant that have not vested as of such termination date may be forfeited to or repurchased by us.

Restricted Stock Unit Awards

Restricted stock unit awards may be granted under the Amended 2019 Plan pursuant to restricted stock unit award agreements. Payment of any purchase price may be made in any form of legal consideration acceptable to the Plan Administrator. A restricted stock unit award may be settled by the delivery of shares of our common stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the restricted stock unit award agreement. Restricted stock unit awards may be subject to vesting in accordance with a vesting schedule to be determined by the Plan Administrator (subject to the limitations described in "Minimum Vesting Requirements" above). Except as otherwise provided in a participant's restricted stock unit award agreement or other written agreement with us or one of our affiliates, restricted stock units that have not vested will be forfeited upon the participant's termination of continuous service for any reason.

Performance Stock Awards

A performance stock award is a stock award that is payable (including that may be granted, may vest, or may be exercised) contingent upon the attainment of pre-determined performance goals during a performance period. A performance stock award may require the completion of a specified period of continuous service. The length of any performance period, the performance goals to be achieved during the performance period, and the measure of whether and to what degree such performance goals have been attained will be determined by the Plan Administrator (subject to the limitations described in "Minimum Vesting Requirements" above). In

addition, to the extent permitted by applicable law and the performance stock award agreement, the Plan Administrator may determine that cash may be used in payment of performance stock awards.

Performance goals under the Amended 2019 Plan will be based on any one or more of the following performance criteria: (i) earnings (including earnings per share and net earnings); (ii) earnings before interest, taxes and depreciation; (iii) earnings before interest, taxes, depreciation and amortization; (iv) earnings before interest, taxes, depreciation, amortization and legal settlements; (v) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (vi) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (vii) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (viii) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation, other non-cash expenses and changes in deferred revenue; (ix) total stockholder return; (x) return on equity or average stockholder's equity; (xi) return on assets, investment, or capital employed; (xii) stock price; (xiii) margin (including gross margin); (xiv) income (before or after taxes); (xv) operating income; (xvi) operating income after taxes; (xvii) pre-tax profit; (xviii) operating cash flow; (xix) sales or revenue targets; (xx) increases in revenue or product revenue; (xxi) expenses and cost reduction goals; (xxii) improvement in or attainment of working capital levels; (xxiii) economic value added (or an equivalent metric); (xxiv) market share; (xxv) cash flow; (xxvi) cash flow per share; (xxvii) cash balance; (xxviii) cash burn; (xxix) cash collections; (xxx) share price performance; (xxxi) debt reduction; (xxxii) implementation or completion of projects or processes (including, without limitation, clinical trial initiation, clinical trial enrollment and dates, clinical trial results, regulatory filing submissions, regulatory filing acceptances, regulatory or advisory committee interactions, regulatory approvals, and product supply); (xxxiii) stockholders' equity; (xxxiv) capital expenditures; (xxxv) debt levels; (xxxvi) operating profit or net operating profit; (xxxvii) workforce diversity; (xxxviii) growth of net income or operating income; (xxxix) billings; (xl) bookings; (xli) employee retention; (xlii) initiation of studies by specific dates; (xliii) budget management; (xliv) submission to, or approval by, a regulatory body (including, but not limited to the U.S. Food and Drug Administration) of an applicable filing or a product; (xlv) regulatory milestones; (xlvi) progress of internal research or development programs; (xlvii) acquisition of new customers; (xlviii) customer retention and/or repeat order rate; (xlix) improvements in sample and test processing times; (l) progress of partnered programs; (li) partner satisfaction; (lii) timely completion of clinical trials; (liii) submission of 510(k)s or pre-market approvals and other regulatory achievements; (liv) milestones related to samples received and/or tests or panels run; (lv) expansion of sales in additional geographies or markets; (lvi) research progress, including the development of programs; (lvii) strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property); and (lviii) and any other measures of performance selected by the Plan Administrator.

Performance goals may be based on a company-wide basis, with respect to one or more business units, divisions, affiliates or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Plan Administrator (i) in the award agreement at the time the award is granted or (ii) in such other document setting forth the performance goals at the time they are established, the Plan Administrator will appropriately make adjustments in the method of calculating the attainment of performance goals for a performance period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by us achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under our bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to

be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; (12) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the U.S. Food and Drug Administration or any other regulatory body; and (13) to make other appropriate adjustments selected by the Plan Administrator.

In addition, the Plan Administrator retains the discretion to reduce or eliminate the compensation or economic benefit due upon the attainment of any performance goals and to define the manner of calculating the performance criteria it selects to use for a performance period.

Other Stock Awards

Other forms of stock awards valued in whole or in part by reference to, or otherwise based on, our common stock may be granted either alone or in addition to other stock awards under the Amended 2019 Plan. Subject to the terms of the Amended 2019 Plan (including the limitations described in “Minimum Vesting Requirements” above), the Plan Administrator will have sole and complete authority to determine the persons to whom and the time or times at which such other stock awards will be granted, the number of shares of our common stock to be granted and all other terms and conditions of such other stock awards.

Clawback Policy

Awards granted under the Amended 2019 Plan will be subject to recoupment in accordance with any clawback policy adopted by the Board or Compensation Committee, and with any other clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Plan Administrator may impose other clawback, recovery or recoupment provisions in an award agreement, including a reacquisition right in respect of previously acquired shares or other cash or property upon the occurrence of cause.

Changes to Capital Structure

In the event of certain capitalization adjustments, including the Reverse Stock Split, the Plan Administrator will appropriately adjust: (i) the class(es) and maximum number of securities subject to the Amended 2019 Plan; (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of ISOs; and (iii) the class(es) and number of securities and price per share of stock subject to outstanding stock awards.

Corporate Transaction and Change in Control

In the event of a corporate transaction (as defined in the Amended 2019 Plan and described below) or a change in control (as defined in the Amended 2019 Plan and described below), the Plan Administrator may take one or more of the following actions with respect to stock awards, contingent upon the closing or consummation of the transaction, unless otherwise provided in the instrument evidencing the stock award or in any other written agreement between us or one of our affiliates and the participant, or unless otherwise provided by the Plan Administrator at the time of grant of the stock award. For purposes of this Proposal 3, the term “transaction” will mean such corporate transaction or change in control.

- arrange for the surviving or acquiring corporation (or its parent company) to assume or continue the stock award or to substitute a similar stock award for the stock award (including an award to acquire the same consideration paid to our stockholders pursuant to the transaction);
- arrange for the assignment of any reacquisition or repurchase rights held by us in respect of our common stock issued pursuant to the stock award to the surviving or acquiring corporation (or its parent company);

- accelerate the vesting (and, if applicable, the exercisability) of the stock award to a date prior to the effective time of the transaction as determined by the Plan Administrator (or, if the Plan Administrator does not determine such a date, to the date that is five days prior to the effective date of the transaction), with the stock award terminating if not exercised (if applicable) at or prior to the effective time of the transaction; *provided, however*, that the Plan Administrator may require participants to complete and deliver to us a notice of exercise before the effective date of a transaction, which is contingent upon the effectiveness of the transaction;
- arrange for the lapse of any reacquisition or repurchase rights held by us with respect to the stock award;
- cancel or arrange for the cancellation of the stock award, to the extent not vested or not exercised prior to the effective time of the transaction, in exchange for such cash consideration, if any, as the Plan Administrator may consider appropriate; and
- cancel or arrange for the cancellation of the stock award, to the extent not vested or not exercised prior to the effective time of the transaction, in exchange for a payment, in such form as may be determined by the Plan Administrator equal to the excess, if any, of (i) the value of the property the participant would have received upon the exercise of the stock award immediately prior to the effective time of the transaction, over (ii) any exercise price payable in connection with such exercise, provided that payments may be delayed to the same extent that payment of consideration to the holders of our common stock is delayed as a result of escrows, earn outs, holdbacks or any other contingencies.

The Plan Administrator is not required to take the same action with respect to all stock awards or portions of stock awards or with respect to all participants. The Plan Administrator may take different actions with respect to the vested and unvested portions of a stock award.

Outstanding awards under the Amended 2019 Plan may be subject to additional acceleration of vesting and exercisability upon or after a change in control as may be provided in the participant's award agreement, in any other written agreement with us or one of our affiliates, but in the absence of such provision, no such acceleration will occur.

For purposes of the Amended 2019 Plan, a corporate transaction generally will be deemed to occur in the event of the consummation of: (i) a sale or other disposition of all or substantially all of our consolidated assets; (ii) a sale or other disposition of at least 50% of our outstanding securities; (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation; or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to the transaction are converted or exchanged into other property by virtue of the transaction.

For purposes of the Amended 2019 Plan, a change in control generally will be deemed to occur in the event: (i) a person, entity or group acquires, directly or indirectly, our securities representing more than 50% of the combined voting power of our then outstanding securities, other than by virtue of a merger, consolidation, or similar transaction; (ii) there is consummated a merger, consolidation, or similar transaction and, immediately after the consummation of such transaction, our stockholders immediately prior thereto do not own, directly or indirectly, more than 50% of the combined outstanding voting power of the surviving entity or the parent of the surviving entity in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such transaction; (iii) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of our consolidated assets, other than a sale, lease, exclusive license or other disposition to an entity in which more than 50% of the entity's combined voting power is owned by our stockholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such sale or other disposition; (iv) a complete dissolution or liquidation of the company; or (v) when a majority of our Board becomes comprised of individuals who were not serving on our Board on the date the Amended 2019 Plan was adopted by the Board, or the incumbent board, or whose nomination, appointment, or election was not approved by a majority of the incumbent board still in office.

Plan Amendments and Termination

The Board (or a committee of one or more directors delegated by the Board) may amend or terminate the Amended 2019 Plan at any time. However, except as otherwise provided in the Amended 2019 Plan or an award agreement, no amendment or termination of the Amended 2019 Plan may materially impair a participant's rights under his or her outstanding awards without the participant's written consent. We will obtain stockholder approval of any amendment to the Amended 2019 Plan as required by applicable law and listing requirements. No incentive stock options may be granted under the Amended 2019 Plan after the tenth anniversary of the date the 2019 Plan was adopted by the Board.

U.S. Federal Income Tax Consequences

The following is a summary of the principal United States federal income tax consequences to participants and us with respect to participation in the Amended 2019 Plan. This summary is not intended to be exhaustive and does not discuss the income tax laws of any local, state or foreign jurisdiction in which a participant may reside. The information is based upon current federal income tax rules and therefore is subject to change when those rules change. Because the tax consequences to any participant may depend on his or her particular situation, each participant should consult the participant's tax adviser regarding the federal, state, local and other tax consequences of the grant or exercise of an award or the disposition of stock acquired under the Amended 2019 Plan. The Amended 2019 Plan is not qualified under the provisions of Section 401(a) of the Internal Revenue Code of 1986, as amended (the "Code"), and is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974. Our ability to realize the benefit of any tax deductions described below depends on our generation of taxable income as well as the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligations.

Nonstatutory Stock Options

Generally, there is no taxation upon the grant of an NSO if the stock option is granted with an exercise price equal to the fair market value of the underlying stock on the grant date. Upon exercise, a participant will recognize ordinary income equal to the excess, if any, of the fair market value of the underlying stock on the date of exercise of the stock option over the exercise price. If the participant is employed by us or one of our affiliates, that income will be subject to withholding taxes. The participant's tax basis in those shares will be equal to their fair market value on the date of exercise of the stock option, and the participant's capital gain holding period for those shares will begin on that date.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the participant.

Incentive Stock Options

The Amended 2019 Plan provides for the grant of stock options that are intended to qualify as "incentive stock options," as defined in Section 422 of the Code. Under the Code, a participant generally is not subject to ordinary income tax upon the grant or exercise of an ISO. If the participant holds a share received upon exercise of an ISO for more than two years from the date the stock option was granted and more than one year from the date the stock option was exercised, which is referred to as the required holding period, the difference, if any, between the amount realized on a sale or other taxable disposition of that share and the participant's tax basis in that share will be long-term capital gain or loss.

If, however, a participant disposes of a share acquired upon exercise of an ISO before the end of the required holding period, which is referred to as a disqualifying disposition, the participant generally will recognize ordinary income in the year of the disqualifying disposition equal to the excess, if any, of the fair

market value of the share on the date of exercise of the stock option over the exercise price. However, if the sales proceeds are less than the fair market value of the share on the date of exercise of the stock option, the amount of ordinary income recognized by the participant will not exceed the gain, if any, realized on the sale. If the amount realized on a disqualifying disposition exceeds the fair market value of the share on the date of exercise of the stock option, that excess will be short-term or long-term capital gain, depending on whether the holding period for the share exceeds one year.

For purposes of the alternative minimum tax, the amount by which the fair market value of a share of stock acquired upon exercise of an ISO exceeds the exercise price of the stock option generally will be an adjustment included in the participant's alternative minimum taxable income for the year in which the stock option is exercised. If, however, there is a disqualifying disposition of the share in the year in which the stock option is exercised, there will be no adjustment for alternative minimum tax purposes with respect to that share. In computing alternative minimum taxable income, the tax basis of a share acquired upon exercise of an ISO is increased by the amount of the adjustment taken into account with respect to that share for alternative minimum tax purposes in the year the stock option is exercised.

We are not allowed a tax deduction with respect to the grant or exercise of an ISO or the disposition of a share acquired upon exercise of an ISO after the required holding period. If there is a disqualifying disposition of a share, however, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the participant, subject to the requirement of reasonableness and the provisions of Section 162(m) of the Code, and provided that either the employee includes that amount in income or we timely satisfy our reporting requirements with respect to that amount.

Restricted Stock Awards

Generally, the recipient of a restricted stock award will recognize ordinary income at the time the stock is received equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. If, however, the stock is not vested when it is received (for example, if the employee is required to work for a period of time in order to have the right to sell the stock), the recipient generally will not recognize income until the stock becomes vested, at which time the recipient will recognize ordinary income equal to the excess, if any, of the fair market value of the stock on the date it becomes vested over any amount paid by the recipient in exchange for the stock. A recipient may, however, file an election with the Internal Revenue Service, within 30 days following his or her receipt of the stock award, to recognize ordinary income, as of the date the recipient receives the award, equal to the excess, if any, of the fair market value of the stock on the date the award is granted over any amount paid by the recipient for the stock.

The recipient's basis for the determination of gain or loss upon the subsequent disposition of shares acquired from a restricted stock award will be the amount paid for such shares plus any ordinary income recognized either when the stock is received or when the stock becomes vested.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock award.

Restricted Stock Unit Awards

Generally, the recipient of a restricted stock unit award structured to comply with the requirements of Section 409A of the Code or an exemption to Section 409A of the Code will recognize ordinary income at the time the stock is delivered equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. To comply with the requirements of Section 409A of the Code, the stock subject to a restricted stock unit award may generally only be delivered upon one of the following events: a fixed calendar date (or dates), separation from service, death, disability or a change in

control. If delivery occurs on another date, unless the restricted stock unit award otherwise complies with or qualifies for an exemption to the requirements of Section 409A of the Code, in addition to the tax treatment described above, the recipient will owe an additional 20% federal tax and interest on any taxes owed.

The recipient's basis for the determination of gain or loss upon the subsequent disposition of shares acquired from a restricted stock unit award will be the amount paid for such shares plus any ordinary income recognized when the stock is delivered.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock unit award.

Stock Appreciation Rights

Generally, if a stock appreciation right is granted with an exercise price equal to the fair market value of the underlying stock on the grant date, the recipient will recognize ordinary income equal to the fair market value of the stock or cash received upon such exercise. Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of our tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the stock appreciation right.

Section 162(m) Limitations

Under Section 162(m) of the Code, compensation paid to any publicly held corporation's "covered employees" that exceeds \$1 million per taxable year for any covered employee is generally non-deductible.

However, Section 162(m) of the Code provides a reliance period exception, pursuant to which the deduction limit under Section 162(m) of the Code does not apply to certain compensation paid (or in some cases, granted) pursuant to a plan or agreement that existed during the period in which the corporation was not publicly held, subject to certain requirements and limitations. Under Section 162(m) of the Code, this reliance period ends upon the earliest of the following: (i) the expiration of the plan or agreement; (ii) the material modification of the plan or agreement; (iii) the issuance of all employer stock and other compensation that has been allocated under the plan; or (iv) the first meeting of stockholders at which directors are to be elected that occurs after the close of the third calendar year following the calendar year in which the corporation's initial public offering occurs. However, the reliance period exception under Section 162(m) of the Code may be repealed or modified in the future as a result of certain changes that were made to Section 162(m) of the Code pursuant to the Tax Cuts and Jobs Act.

In addition, prior to the enactment of the Tax Cuts and Jobs Act, Section 162(m) of the Code provided a performance-based compensation exception, pursuant to which the deduction limit under Section 162(m) of the Code did not apply to any compensation that qualified as "performance-based compensation" under Section 162(m) of the Code. Pursuant to the Tax Cuts and Jobs Act, the performance-based compensation exception under Section 162(m) of the Code was repealed with respect to taxable years beginning after December 31, 2017, except that certain transition relief is provided for compensation paid pursuant to a written binding contract which was in effect on November 2, 2017 and which is not modified in any material respect on or after such date.

Compensation paid to each of the Company's "covered employees" in excess of \$1 million per taxable year generally will not be deductible unless it qualifies for (i) the reliance period exception under Section 162(m) of the Code or (ii) the performance-based compensation exception under Section 162(m) of the Code pursuant to the transition relief described above. Because of certain ambiguities and uncertainties as to the application and interpretation of Section 162(m) of the Code, as well as other factors beyond the control of the Compensation Committee, no assurance can be given that any compensation paid by the Company will qualify for the reliance

period exception under Section 162(m) of the Code or will be eligible for such transition relief and be deductible by the Company in the future. However, stock awards granted under the Amended 2019 Plan will be subject to the deduction limit under Section 162(m) of the Code and will not be eligible to qualify for the reliance period exception or the performance-based compensation exception under Section 162(m) of the Code pursuant to the transition relief provided by the Tax Cuts and Jobs Act. Although the Compensation Committee will continue to consider tax implications as one factor in determining executive compensation, the Compensation Committee also looks at other factors in making its decisions and retains the flexibility to provide compensation for the Company's named executive officers in a manner consistent with the goals of the Company's executive compensation program and the best interests of the Company and its stockholders, which may include providing for compensation that is not deductible by the Company due to the deduction limit under Section 162(m) of the Code. The Compensation Committee also retains the flexibility to modify compensation that was initially intended to be exempt from the deduction limit under Section 162(m) of the Code if it determines that such modifications are consistent with the Company's business needs.

Awards Granted Under the 2019 Plan

The following table sets forth, for each of the individuals and various groups indicated, the total number of shares of our common stock subject to awards that have been granted under the 2019 Plan as of November 22, 2019.

2019 Plan

<u>Name and Position</u>	<u>Number of Shares</u>
Richard A. Fair <i>President and Chief Executive Officer</i>	1,550,000
Shane M. Ward <i>Chief Legal and Strategy Officer and Corporate Secretary</i>	217,500
William Grossman, M.D. Ph.D. <i>Former Chief Medical Officer</i>	65,625
Alan A. Musso, C.P.A., C.M.A. <i>Former Chief Financial Officer and Treasurer</i>	267,645
All current executive officers as a group	2,872,502
All current directors who are not executive officers as a group	571,253
Each associate of any executive officers or current directors	—
Each other person who received or is to receive 5% of awards	—
All employees, including all current officers who are not executive officers, as a group	2,162,148

New Plan Benefits under Amended 2019 Plan

The following table sets forth the benefits or amounts that will be received by or allocated to each of the individuals and groups indicated below under the 2019 Plan, if such benefits or amounts are determinable.

New Plan Benefits under Amended 2019 Plan

<u>Name and Position</u>	<u>Dollar Value</u>	<u>Number of Shares</u>
Richard A. Fair(1) <i>President and Chief Executive Officer</i>	(1)	(1)
Shane M. Ward <i>Chief Legal and Strategy Officer and Corporate Secretary</i>	(1)	(1)
William Grossman, M.D., Ph.D. <i>Former Chief Medical Officer</i>	(1)	(1)
Alan A. Musso, C.P.A., C.M.A. <i>Former Chief Financial Officer and Treasurer</i>	(1)	(1)
All current executive officers as a group	(1)	(1)
All current directors who are not executive officers as a group(2)	(2)	175,000 per calendar year(3)
All employees, including all current officers who are not executive officers, as a group	(1)	(1)

- (1) Awards granted under the Amended 2019 Plan to our executive officers and other employees are discretionary and are not subject to set benefits or amounts under the terms of the Amended 2019 Plan. Accordingly, the benefits or amounts that will be received by or allocated to our executive officers and other employees under the Amended 2019 Plan are not determinable.
- (2) Awards granted under the Amended 2019 Plan to our non-employee directors are discretionary and are not subject to set benefits or amounts under the terms of the Amended 2019 Plan. However, pursuant to our current compensation policy for non-employee directors, each of our continuing non-employee directors is eligible to receive an annual grant of a stock option to purchase 25,000 shares of our common stock as of the date of our annual meeting. Such options will be granted under the Amended 2019 Plan at our next annual meeting held in 2020 if this Proposal 3 is approved by our stockholders. For additional information regarding our current compensation policy for non-employee directors, please refer to the section titled "Non-Employee Director Compensation" in our definitive proxy statement on Schedule 14A filed with the SEC on April 25, 2019. The actual value realized upon exercise of an option will depend on the excess, if any, of the stock price over the exercise prices on the date of exercise.
- (3) Does not give effect to any Reverse Stock Split.

Vote Required

The affirmative vote of the holders of a majority of shares present (either in person or by proxy) and entitled to vote on the proposal will be required to approve this Proposal 3. Abstentions will have the same effect as negative votes. Broker non-votes are counted towards a quorum but are not counted for any purpose in determining whether this Proposal 3 has been approved.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE FOR THE EQUITY INCENTIVE PLAN PROPOSAL (PROPOSAL 3).

PROPOSAL 4

APPROVAL OF AN ADJOURNMENT OF THE SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES

General

If the Special Meeting is convened and a quorum is present, but there are not sufficient votes to approve Proposal 1, Proposal 2 or Proposal 3, or if there are insufficient votes to constitute a quorum, our proxy holders may move to adjourn the Special Meeting at that time in order to enable the Board to solicit additional proxies.

In this proposal, we are asking our stockholders to authorize the holder of any proxy solicited by the Board to vote in favor of adjourning the Special Meeting to another time and place, if necessary or appropriate (as determined in good faith by the Board), to solicit additional proxies in the event there are not sufficient votes to approve Proposal 1, Proposal 2 or Proposal 3. If our stockholders approve this proposal, we could adjourn the Special Meeting and any adjourned or postponed session of the Special Meeting and use the additional time to solicit additional proxies, including the solicitation of proxies from our stockholders that have previously voted. Among other things, approval of this proposal could mean that, even if we had received proxies representing a sufficient number of votes to defeat Proposal 1, Proposal 2 or Proposal 3, we could adjourn the Special Meeting without a vote on such proposal and seek to convince our stockholders to change their votes in favor of such proposal.

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

Vote Required

Approval of the Adjournment Proposal requires "FOR" votes from the holders of a majority of the shares represented at the Special Meeting. Abstentions will have the same effect as an "against" vote on this proposal. As noted above, we believe that this proposal will be considered a "routine" matter and, as a result, we do not expect there to be any broker non-votes on this proposal. If, however, your shares are represented at the Special Meeting and your broker fails to vote your shares on this proposal, it will have the same effect as an "against" vote on this proposal.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE FOR APPROVAL OF THE ADJOURNMENT PROPOSAL (PROPOSAL 4).

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for meeting materials with respect to two or more stockholders sharing the same address by delivering a single set of meeting materials addressed to those stockholders. This process, which is commonly referred to as “householding,” potentially means extra convenience for stockholders and cost savings for companies.

For this meeting, a number of brokers with account holders who are Bellicum stockholders will be “householding” the Company’s proxy materials. Notices of Internet Availability of Proxy Materials will 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 they will be “householding” communications to your address, “householding” will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in “householding” and would prefer to receive a separate Notice of Internet Availability of Proxy Materials, please notify your broker or Bellicum. Direct your written request to Bellicum Pharmaceuticals, Inc., Attn: Corporate Secretary, 2130 W. Holcombe Blvd., Suite 800, Houston, TX 77030 or contact Broadridge Financial Solutions, Inc., Householding Department, 51 Mercedes Way, Edgewood, New York, 11717 at 1-866-540-7095. Stockholders who currently receive multiple copies of the Notice of Internet Availability of Proxy Materials at their addresses and would like to request “householding” of their communications should contact their brokers.

OTHER MATTERS

The Board knows of no other matters that will be presented for consideration at the Special Meeting. If any other matters are properly brought before the meeting, it is the intention of the persons named in the proxy accompanying the Notice to vote on such matters in accordance with their best judgment.

**CERTIFICATE OF AMENDMENT OF THE
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF
BELLICUM PHARMACEUTICALS, INC.**

Bellicum Pharmaceuticals, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "**Company**"), hereby certifies that:

First: The name of the Company is **BELLICUM PHARMACEUTICALS, INC.**

Second: The date of filing of the Company's original certificate of incorporation with the Delaware Secretary of State was July 14, 2004, under the name of Bellicum Pharmaceuticals, Inc.

Third: The Board of Directors of the Company, acting in accordance with the provisions of Sections 141 and 242 of the General Corporation Law of the State of Delaware, adopted resolutions to amend its Amended and Restated Certificate of Incorporation as follows:

1. Article IV, Section A shall be amended and restated to read in its entirety as follows:

"The Company is authorized to issue two classes of stock to be designated, respectively, "**Common Stock**" and "**Preferred Stock**." The total number of shares which the Company is authorized to issue is 90,000,000 shares. 80,000,000 shares shall be Common Stock, each having a par value of \$0.01. 10,000,000 shares shall be Preferred Stock, each having a par value of \$0.01."

2. Effective as of 5:00 p.m., Eastern time, on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware, each five (5) shares of Common Stock, par value \$0.01 per share, issued and outstanding shall, automatically and without any action on the part of the respective holders thereof, be combined and converted into one (1) share of Common Stock, par value \$0.01 per share; provided, however, that the Company shall issue no fractional shares as a result of the actions set forth herein but shall instead pay to the holder of such fractional share a sum in cash equal to such fraction multiplied by the closing sales price of the Common Stock as reported on the Nasdaq Capital Market on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware.

Fourth: Thereafter pursuant to a resolution of the Board of Directors, this Certificate of Amendment was submitted to the stockholders of the Company for their approval, and was duly adopted at a special meeting of the stockholders of the Company, in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Company on has caused this Certificate of Amendment to be signed by its Chief Executive Officer this day of , 2019.

Bellicum Pharmaceuticals, Inc.

By: _____
Name: Richard Fair
Title: Chief Executive officer

**CERTIFICATE OF AMENDMENT OF THE
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF
BELLICUM PHARMACEUTICALS, INC.**

Bellicum Pharmaceuticals, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "**Company**"), hereby certifies that:

First: The name of the Company is **BELLICUM PHARMACEUTICALS, INC.**

Second: The date of filing of the Company's original certificate of incorporation with the Delaware Secretary of State was July 14, 2004, under the name of Bellicum Pharmaceuticals, Inc.

Third: The Board of Directors of the Company, acting in accordance with the provisions of Sections 141 and 242 of the General Corporation Law of the State of Delaware, adopted resolutions to amend its Amended and Restated Certificate of Incorporation as follows:

1. Article IV, Section A shall be amended and restated to read in its entirety as follows:

"The Company is authorized to issue two classes of stock to be designated, respectively, "**Common Stock**" and "**Preferred Stock**." The total number of shares which the Company is authorized to issue is 76,666,667 shares. 66,666,667 shares shall be Common Stock, each having a par value of \$0.01. 10,000,000 shares shall be Preferred Stock, each having a par value of \$0.01."

2. Effective as of 5:00 p.m., Eastern time, on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware, each six (6) shares of Common Stock, par value \$0.01 per share, issued and outstanding shall, automatically and without any action on the part of the respective holders thereof, be combined and converted into one (1) share of Common Stock, par value \$0.01 per share; provided, however, that the Company shall issue no fractional shares as a result of the actions set forth herein but shall instead pay to the holder of such fractional share a sum in cash equal to such fraction multiplied by the closing sales price of the Common Stock as reported on the Nasdaq Capital Market on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware.

Fourth: Thereafter pursuant to a resolution of the Board of Directors, this Certificate of Amendment was submitted to the stockholders of the Company for their approval, and was duly adopted at a special meeting of the stockholders of the Company, in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Company on has caused this Certificate of Amendment to be signed by its Chief Executive Officer this day of , 2019.

Bellicum Pharmaceuticals, Inc.

By: _____
Name: Richard Fair
Title: Chief Executive officer

**CERTIFICATE OF AMENDMENT OF THE
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF
BELLICUM PHARMACEUTICALS, INC.**

Bellicum Pharmaceuticals, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "**Company**"), hereby certifies that:

First: The name of the Company is **BELLICUM PHARMACEUTICALS, INC.**

Second: The date of filing of the Company's original certificate of incorporation with the Delaware Secretary of State was July 14, 2004, under the name of Bellicum Pharmaceuticals, Inc.

Third: The Board of Directors of the Company, acting in accordance with the provisions of Sections 141 and 242 of the General Corporation Law of the State of Delaware, adopted resolutions to amend its Amended and Restated Certificate of Incorporation as follows:

1. Article IV, Section A shall be amended and restated to read in its entirety as follows:

"The Company is authorized to issue two classes of stock to be designated, respectively, "**Common Stock**" and "**Preferred Stock**." The total number of shares which the Company is authorized to issue is 67,142,858 shares. 57,142,858 shares shall be Common Stock, each having a par value of \$0.01. 10,000,000 shares shall be Preferred Stock, each having a par value of \$0.01."

2. Effective as of 5:00 p.m., Eastern time, on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware, each seven (7) shares of Common Stock, par value \$0.01 per share, issued and outstanding shall, automatically and without any action on the part of the respective holders thereof, be combined and converted into one (1) share of Common Stock, par value \$0.01 per share; provided, however, that the Company shall issue no fractional shares as a result of the actions set forth herein but shall instead pay to the holder of such fractional share a sum in cash equal to such fraction multiplied by the closing sales price of the Common Stock as reported on the Nasdaq Capital Market on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware.

Fourth: Thereafter pursuant to a resolution of the Board of Directors, this Certificate of Amendment was submitted to the stockholders of the Company for their approval, and was duly adopted at a special meeting of the stockholders of the Company, in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Company on has caused this Certificate of Amendment to be signed by its Chief Executive Officer this day of , 2019.

Bellicum Pharmaceuticals, Inc.

By: _____
Name: Richard Fair
Title: Chief Executive officer

**CERTIFICATE OF AMENDMENT OF THE
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF
BELLICUM PHARMACEUTICALS, INC.**

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First: The name of the Company is **BELLICUM PHARMACEUTICALS, INC.**

Second: The date of filing of the Company’s original certificate of incorporation with the Delaware Secretary of State was July 14, 2004, under the name of Bellicum Pharmaceuticals, Inc.

Third: The Board of Directors of the Company, acting in accordance with the provisions of Sections 141 and 242 of the General Corporation Law of the State of Delaware, adopted resolutions to amend its Amended and Restated Certificate of Incorporation as follows:

1. Article IV, Section A shall be amended and restated to read in its entirety as follows:

“The Company is authorized to issue two classes of stock to be designated, respectively, “*Common Stock*” and “*Preferred Stock*.” The total number of shares which the Company is authorized to issue is 60,000,000 shares. 50,000,000 shares shall be Common Stock, each having a par value of \$0.01. 10,000,000 shares shall be Preferred Stock, each having a par value of \$0.01.”

2. Effective as of 5:00 p.m., Eastern time, on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware, each eight (8) shares of Common Stock, par value \$0.01 per share, issued and outstanding shall, automatically and without any action on the part of the respective holders thereof, be combined and converted into one (1) share of Common Stock, par value \$0.01 per share; provided, however, that the Company shall issue no fractional shares as a result of the actions set forth herein but shall instead pay to the holder of such fractional share a sum in cash equal to such fraction multiplied by the closing sales price of the Common Stock as reported on the Nasdaq Capital Market on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware.

Fourth: Thereafter pursuant to a resolution of the Board of Directors, this Certificate of Amendment was submitted to the stockholders of the Company for their approval, and was duly adopted at a special meeting of the stockholders of the Company, in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Company on has caused this Certificate of Amendment to be signed by its Chief Executive Officer this day of , 2019.

Bellicum Pharmaceuticals, Inc.

By: _____
Name: Richard Fair
Title: Chief Executive officer

**CERTIFICATE OF AMENDMENT OF THE
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First: The name of the Company is **BELLICUM PHARMACEUTICALS, INC.**

Second: The date of filing of the Company’s original certificate of incorporation with the Delaware Secretary of State was July 14, 2004, under the name of Bellicum Pharmaceuticals, Inc.

Third: The Board of Directors of the Company, acting in accordance with the provisions of Sections 141 and 242 of the General Corporation Law of the State of Delaware, adopted resolutions to amend its Amended and Restated Certificate of Incorporation as follows:

1. Article IV, Section A shall be amended and restated to read in its entirety as follows:

“The Company is authorized to issue two classes of stock to be designated, respectively, “*Common Stock*” and “*Preferred Stock*.” The total number of shares which the Company is authorized to issue is 54,444,445 shares. 44,444,445 shares shall be Common Stock, each having a par value of \$0.01. 10,000,000 shares shall be Preferred Stock, each having a par value of \$0.01.”

2. Effective as of 5:00 p.m., Eastern time, on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware, each nine (9) shares of Common Stock, par value \$0.01 per share, issued and outstanding shall, automatically and without any action on the part of the respective holders thereof, be combined and converted into one (1) share of Common Stock, par value \$0.01 per share; provided, however, that the Company shall issue no fractional shares as a result of the actions set forth herein but shall instead pay to the holder of such fractional share a sum in cash equal to such fraction multiplied by the closing sales price of the Common Stock as reported on the Nasdaq Capital Market on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware.

Fourth: Thereafter pursuant to a resolution of the Board of Directors, this Certificate of Amendment was submitted to the stockholders of the Company for their approval, and was duly adopted at a special meeting of the stockholders of the Company, in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Company on has caused this Certificate of Amendment to be signed by its Chief Executive Officer this day of _____, 2019.

Bellicum Pharmaceuticals, Inc.

By: _____
Name: Richard Fair
Title: Chief Executive officer

**CERTIFICATE OF AMENDMENT OF THE
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BELLICUM PHARMACEUTICALS, INC.**

Bellicum Pharmaceuticals, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "**Company**"), hereby certifies that:

First: The name of the Company is **BELLICUM PHARMACEUTICALS, INC.**

Second: The date of filing of the Company's original certificate of incorporation with the Delaware Secretary of State was July 14, 2004, under the name of Bellicum Pharmaceuticals, Inc.

Third: The Board of Directors of the Company, acting in accordance with the provisions of Sections 141 and 242 of the General Corporation Law of the State of Delaware, adopted resolutions to amend its Amended and Restated Certificate of Incorporation as follows:

1. Article IV, Section A shall be amended and restated to read in its entirety as follows:

"The Company is authorized to issue two classes of stock to be designated, respectively, "**Common Stock**" and "**Preferred Stock**." The total number of shares which the Company is authorized to issue is 50,000,000 shares. 40,000,000 shares shall be Common Stock, each having a par value of \$0.01. 10,000,000 shares shall be Preferred Stock, each having a par value of \$0.01."

2. Effective as of 5:00 p.m., Eastern time, on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware, each ten (10) shares of Common Stock, par value \$0.01 per share, issued and outstanding shall, automatically and without any action on the part of the respective holders thereof, be combined and converted into one (1) share of Common Stock, par value \$0.01 per share; provided, however, that the Company shall issue no fractional shares as a result of the actions set forth herein but shall instead pay to the holder of such fractional share a sum in cash equal to such fraction multiplied by the closing sales price of the Common Stock as reported on the Nasdaq Capital Market on the date this Certificate of Amendment of the Amended and Restated Certificate of Incorporation is filed with the Secretary of State of the State of Delaware.

Fourth: Thereafter pursuant to a resolution of the Board of Directors, this Certificate of Amendment was submitted to the stockholders of the Company for their approval, and was duly adopted at a special meeting of the stockholders of the Company, in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Company on has caused this Certificate of Amendment to be signed by its Chief Executive Officer this day of , 2019.

Bellicum Pharmaceuticals, Inc.

By: _____
Name: Richard Fair
Title: Chief Executive officer

**CERTIFICATE OF AMENDMENT OF THE
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF
BELLICUM PHARMACEUTICALS, INC.**

Bellicum Pharmaceuticals, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "**Company**"), hereby certifies that:

First: The name of the Company is **BELLICUM PHARMACEUTICALS, INC.**

Second: The date of filing of the Company's original certificate of incorporation with the Delaware Secretary of State was July 14, 2004, under the name of Bellicum Pharmaceuticals, Inc.

Third: The Board of Directors of the Company, acting in accordance with the provisions of Sections 141 and 242 of the General Corporation Law of the State of Delaware, adopted resolutions to amend its Amended and Restated Certificate of Incorporation as follows:

Article IV, Section A shall be amended and restated to read in its entirety as follows:

"The Company is authorized to issue two classes of stock to be designated, respectively, "**Common Stock**" and "**Preferred Stock**." The total number of shares which the Company is authorized to issue is 410,000,000 shares. 400,000,000 shares shall be Common Stock, each having a par value of \$0.01. 10,000,000 shares shall be Preferred Stock, each having a par value of \$0.01."

Fourth: Thereafter pursuant to a resolution of the Board of Directors, this Certificate of Amendment was submitted to the stockholders of the Company for their approval, and was duly adopted at a special meeting of the stockholders of the Company, in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Company on has caused this Certificate of Amendment to be signed by its Chief Executive Officer this day of _____, 2019.

Bellicum Pharmaceuticals, Inc.

By: _____
Name: Richard Fair
Title: Chief Executive officer

BELLICUM PHARMACEUTICALS, INC.
2019 EQUITY INCENTIVE PLAN

ADOPTED BY THE COMPENSATION COMMITTEE OF THE
 BOARD OF DIRECTORS: APRIL 22, 2019
 APPROVED BY THE STOCKHOLDERS: JUNE 13, 2019
 AMENDED AND APPROVED BY THE BOARD OF DIRECTORS: JULY 9, 2019
 AMENDED BY THE BOARD OF DIRECTORS: NOVEMBER [], 2019
 APPROVED BY THE STOCKHOLDERS: JANUARY [], 2020

1. GENERAL.

(a) Successor to and Continuation of 2014 Plan.

(i) The Plan is intended as the successor to and continuation of the Bellicum Pharmaceuticals, Inc. 2014 Equity Incentive Plan, as amended (the “**2014 Plan**”). From and after 12:01 a.m. Pacific time on the Effective Date, no additional stock awards will be granted under the 2014 Plan. All Stock Awards granted on or after 12:01 a.m. Pacific Time on the Effective Date will be granted under this Plan. All stock awards granted under the 2014 Plan or under the Bellicum Pharmaceuticals, Inc. 2011 Stock Option Plan, as amended, and the Bellicum Pharmaceuticals, Inc. 2006 Stock Option Plan, as amended (together with the 2014 Plan and the 2011 Plan, the “**Prior Plans**”), will remain subject to the terms of the Prior Plans.

(ii) Any shares that would otherwise remain available for future grants under the 2014 Plan as of 12:01 a.m. Pacific Time on the Effective Date (the “**2014 Plan’s Available Reserve**”) will cease to be available under the 2014 Plan at such time and will not be available under this Plan.

(iii) From and after 12:01 a.m. Pacific time on the Effective Date, any shares subject, at such time, to outstanding stock awards granted under any of the Prior Plans (each, a “**Prior Plan Award**”) that (i) are not issued because such stock award or any portion thereof expires or otherwise terminates without all of the shares covered by such stock award having been issued; (ii) are not issued because such stock award or any portion thereof is settled in cash; and (iii) are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required for the vesting of such shares (such shares the “**Prior Plans’ Returning Shares**”) will immediately be added to the Share Reserve (pursuant to the provisions described in Section 3(a) below) as and when such shares become Prior Plans’ Returning Shares, up to the maximum number set forth in Section 3(a) below.

(b) Eligible Stock Award Recipients. Subject to Section 4, Employees, Directors and Consultants are eligible to receive Stock Awards.

(c) Available Stock Awards. The Plan provides for the grant of the following types of Stock Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Stock Appreciation Rights, (iv) Restricted Stock Awards, (v) Restricted Stock Unit Awards, (vi) Performance Stock Awards, and (vii) Other Stock Awards.

(d) Purpose. The Plan, through the grant of Stock Awards, is intended to help the Company and any Affiliate secure and retain the services of eligible award recipients, provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate, and provide a means by which the eligible recipients may benefit from increases in value of the Common Stock.

2. ADMINISTRATION.

(a) Administration by Board. The Board will administer the Plan. The Board may delegate administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) Powers of Board. The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine: (A) who will be granted Stock Awards; (B) when and how each Stock Award will be granted; (C) what type of Stock Award will be granted; (D) the provisions of each Stock Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Stock Award (subject to Section 2(i)); (E) the number of shares of Common Stock subject to, or the cash value of, a Stock Award; and (F) the Fair Market Value applicable to a Stock Award.

(ii) To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan and Stock Awards. The Board, in the exercise of these powers, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it will deem necessary or expedient to make the Plan or Stock Award fully effective.

(iii) To settle all controversies regarding the Plan and Stock Awards granted under it.

(iv) Subject to Section 2(i), to accelerate, in whole or in part, the time at which a Stock Award may be exercised or vest (or the time at which cash or shares of Common Stock may be issued in settlement thereof).

(v) To suspend or terminate the Plan at any time. Except as otherwise provided in the Plan or a Stock Award Agreement, suspension or termination of the Plan will not materially impair a Participant's rights under the Participant's then-outstanding Stock Award without the Participant's written consent, except as provided in subsection (viii) below.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or bringing the Plan or Stock Awards granted under the Plan into compliance with the requirements for Incentive Stock Options or ensuring that they are exempt from, or compliant with, the requirements for nonqualified deferred compensation under Section 409A of the Code, subject to the limitations, if any, of applicable law. If required by applicable law or listing requirements, and except as provided in Section 9(a) relating to Capitalization Adjustments, the Company will seek stockholder approval of any amendment of the Plan that (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Stock Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan, (D) materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (E) materially extends the term of the Plan, or (F) materially expands the types of Stock Awards available for issuance under the Plan. Except as otherwise provided in the Plan or a Stock Award Agreement, no amendment of the Plan will materially impair a Participant's rights under an outstanding Stock Award without the Participant's written consent.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of (A) Section 422 of the Code regarding "incentive stock options" or (B) Rule 16b-3.

(viii) To approve forms of Stock Award Agreements for use under the Plan and to amend the terms of any one or more Stock Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Stock Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided, however*, that a Participant's rights under any Stock Award will not be impaired by any such amendment unless (A) the Company requests the consent of the affected Participant, and (B) such Participant consents in writing. Notwithstanding the foregoing, (1) a Participant's rights will not be deemed to have been impaired by any such amendment if the Board, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights, and (2) subject to the

limitations of applicable law, if any, the Board may amend the terms of any one or more Stock Awards without the affected Participant's consent (A) to maintain the qualified status of the Stock Award as an Incentive Stock Option under Section 422 of the Code; (B) to change the terms of an Incentive Stock Option, if such change results in impairment of the Stock Award solely because it impairs the qualified status of the Stock Award as an Incentive Stock Option under Section 422 of the Code; (C) to clarify the manner of exemption from, or to bring the Stock Award into compliance with, Section 409A of the Code; or (D) to comply with other applicable laws or listing requirements.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Stock Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States (provided that Board approval will not be necessary for immaterial modifications to the Plan or any Stock Award Agreement that are required for compliance with the laws of the relevant foreign jurisdiction).

(c) Delegation to Committee.

(i) General. The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee, as applicable). Any delegation of administrative powers will be reflected in resolutions, not inconsistent with the provisions of the Plan, adopted from time to time by the Board or Committee (as applicable). The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revert in the Board some or all of the powers previously delegated.

(ii) Rule 16b-3 Compliance. The Committee may consist solely of two or more Non-Employee Directors, in accordance with Rule 16b-3.

(d) Delegation to an Officer. The Board may delegate to one (1) or more Officers the authority to do one or both of the following (i) designate Employees who are not Officers to be recipients of Options and SARs (and, to the extent permitted by applicable law, other Stock Awards) and, to the extent permitted by applicable law, the terms of such Stock Awards, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Employees; *provided, however*, that the Board resolutions regarding such delegation will specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Any such Stock Awards will be granted on the form of Stock Award Agreement most recently approved for use by the Committee or the Board, unless otherwise provided in the resolutions approving the delegation authority. The Board may not delegate authority to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) to determine the Fair Market Value pursuant to Section 13(w)(iii) below.

(e) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

(f) Cancellation and Re-Grant of Stock Awards. Neither the Board nor any Committee will have the authority to: (i) reduce the exercise price or strike price of any outstanding Options or Stock Appreciation Rights under the Plan, or (ii) cancel any outstanding Options or Stock Appreciation Rights that have an exercise price or strike price greater than the current Fair Market Value of the Common Stock in exchange for cash or other Stock Awards under the Plan, unless the stockholders of the Company have approved such an action within twelve months prior to such an event.

(g) Minimum Vesting Requirements. No Stock Award may vest (or, if applicable, be exercisable) until at least 12 months following the date of grant of the Stock Award; *provided, however*, that shares of Common Stock up to 5% of the Share Reserve (as defined in Section 3(a)) may be issued pursuant to Stock Awards that do not meet such vesting (and, if applicable, exercisability) requirements.

(h) Dividends and Dividend Equivalents. Dividends or dividend equivalents may be paid or credited, as applicable, with respect to any shares of Common Stock subject to an Award, as determined by the Board and contained in the applicable Award Agreement; *provided, however*, that (i) no dividends or dividend equivalents may be paid with respect to any such shares before the date such shares have vested under the terms of such Award Agreement, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of such Award Agreement (including, but not limited to, any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to the Company on the date, if any, such shares are forfeited to or repurchased by the Company due to a failure to meet any vesting conditions under the terms of such Award Agreement.

(i) Restrictions on Accelerated Vesting. Notwithstanding anything to the contrary set forth in the Plan, after the time a Stock Award has been granted the Board may not accelerate the time or times at which a Stock Award vests or becomes exercisable, except in connection with a Transaction or the death or Disability of a Participant.

3. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve.

(i) Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards from and after the Effective Date will consist of (i) 2,500,000 shares, *plus* (ii) an additional 6,000,000 shares that were approved at the Company's Special Meeting of Stockholders in 2020, *plus* (iii) the number of shares that are the Prior Plans' Returning Shares, as such shares become available from time to time pursuant to the provisions of this Section 3, up to a maximum of 6,005,401 shares (such total number of potential shares in (i), (ii) and (iii), the "**Share Reserve**"). Upon the Effective Date, (1) the number of shares subject to the 2014 Plan's Available Reserve shall cease to be available for grant, whether under the 2014 Plan or this Plan and (2) any shares remaining available for grant under the 2014 Plan Inducement Share Pool (as defined in the 2014 Plan) shall cease to be available for grant.

(ii) Subject to Section 3(b), the number of shares of Common Stock available for issuance under the Plan will be reduced by: (A) one (1) share for each share of Common Stock issued pursuant to an Appreciation Award granted under the Plan; and (B) 1.25 shares for each share of Common Stock issued pursuant to a Full Value Award granted under the Plan.

(iii) Subject to Section 3(b), the number of shares of Common Stock available for issuance under the Plan will be increased by: (A) one (1) share for each Prior Plans' Returning Share or 2019 Plan Returning Share (as defined in Section 3(b)(i)) subject to an Appreciation Award; and (B) 1.25 shares for each Prior Plans' Returning Share or 2019 Plan Returning Share subject to a Full Value Award.

(iv) For clarity, the Share Reserve in this Section 3(a) is a limitation on the number of shares of Common Stock that may be issued pursuant to the Plan. Accordingly, this Section 3(a) does not limit the granting of Stock Awards except as provided in Section 7(a). Shares may be issued in connection with a merger or acquisition as permitted by NASDAQ Listing Rule 5635(c) or, if applicable, NYSE Listed Company Manual Section 303A.08, AMEX Company Guide Section 711 or other applicable rule, and such issuance will not reduce the number of shares available for issuance under the Plan.

(b) Reversion of Shares to the Share Reserve.

(i) Shares Available for Subsequent Issuance. The following shares of Common Stock (collectively, the “**2019 Plan Returning Shares**”) will become available again for issuance under the Plan: (A) any shares subject to a Stock Award that are not issued because such Stock Award or any portion thereof expires or otherwise terminates without all of the shares covered by such Stock Award having been issued; (B) any shares subject to a Stock Award that are not issued because such Stock Award or any portion thereof is settled in cash; and (C) any shares issued pursuant to a Stock Award that are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required for the vesting of such shares.

(ii) Shares Not Available for Subsequent Issuance. The following shares of Common Stock will not become available again for issuance under the Plan: (A) any shares that are reacquired or withheld (or not issued) by the Company to satisfy the exercise, strike or purchase price of a Stock Award or a Prior Plan Award (including any shares subject to such award that are not delivered because such award is exercised through a reduction of shares subject to such award (*i.e.*, “net exercised”)); (B) any shares that are reacquired or withheld (or not issued) by the Company to satisfy a tax withholding obligation in connection with a Stock Award or a Prior Plan Award; (C) any shares repurchased by the Company on the open market with the proceeds of the exercise, strike or purchase price of a Stock Award or a Prior Plan Award; and (D) in the event that a Stock Appreciation Right granted under the Plan or a stock appreciation right granted under any of the Prior Plans is settled in shares of Common Stock, the gross number of shares of Common Stock subject to such award.

(c) Incentive Stock Option Limit. Subject to the provisions of Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options will be 29,010,802 shares of Common Stock.

(d) Source of Shares. The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

(e) Limitation on Grants to Non-Employee Directors. The aggregate value of all compensation granted or paid (as applicable) in any calendar year to any individual for service as a Non-Employee Director, including Stock Awards granted under the Plan or otherwise and any cash fees paid by the Company to such Non-Employee Director, will not exceed \$600,000 in total value (calculating the value of any such Stock Awards based on the grant date fair value of such Stock Awards for financial reporting purposes), or, with respect to the calendar year in which a Non-Employee Director is first appointed or elected to the Board, \$1,000,000.

(f) Inducement Share Pool and Inducement Award Rules. This Section 3(f) will apply with respect to an additional 224,400 shares of Common Stock reserved under this Plan by action of the Board (or a committee thereof) to be used exclusively for the grant of Inducement Awards in compliance with NASDAQ Listing Rule 5635(c)(4) (the “**Inducement Shares**”). The Inducement Shares that may be awarded under this Section 3(f) shall be in addition to and shall not reduce the Share Reserve.

4. ELIGIBILITY.

(a) Eligibility for Specific Stock Awards. Incentive Stock Options may be granted only to employees of the Company or a “parent corporation” or “subsidiary corporation” thereof (as such terms are defined in Sections 424(e) and 424(f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided, however*, that Stock Awards may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any “parent” of the Company, as such term is defined in Rule 405 of the Securities Act, unless (i) the stock underlying such Stock Awards is treated as “service recipient stock” under Section 409A of the Code (for example, because the Stock Awards are granted pursuant to a corporate transaction such as a spin off transaction), (ii) the Company, in consultation with its legal counsel, has determined that such Stock Awards are otherwise exempt from Section 409A of the Code, or (iii) the Company, in consultation with its legal counsel, has determined that such Stock Awards comply with the distribution requirements of Section 409A of the Code.

(b) Ten Percent Stockholders. A Ten Percent Stockholder will not be granted an Incentive Stock Option unless the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five years from the date of grant.

5. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option or SAR will be in such form and will contain such terms and conditions as the Board deems appropriate. All Options will be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates will be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, or if an Option is designated as an Incentive Stock Option but some portion or all of the Option fails to qualify as an Incentive Stock Option under the applicable rules, then the Option (or portion thereof) will be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided, however*, that each Stock Award Agreement will conform to (through incorporation of provisions hereof by reference in the applicable Stock Award Agreement or otherwise) the substance of each of the following provisions:

(a) Term. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR will be exercisable after the expiration of ten years from the date of its grant or such shorter period specified in the Stock Award Agreement.

(b) Exercise Price. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, the exercise or strike price of each Option or SAR will be not less than 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Stock Award is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise or strike price lower than 100% of the Fair Market Value of the Common Stock subject to the Stock Award if such Stock Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Transaction and in a manner consistent with the provisions of Section 409A and, if applicable, Section 424(a) of the Code. Each SAR will be denominated in shares of Common Stock equivalents.

(c) Purchase Price for Options. The purchase price of Common Stock acquired pursuant to the exercise of an Option may be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board will have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to use a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) if an Option is a Nonstatutory Stock Option, by a “net exercise” arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company will accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued. Shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the “net exercise,” (B) shares are

delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations; or

(v) in any other form of legal consideration that may be acceptable to the Board and specified in the applicable Stock Award Agreement.

(d) Exercise and Payment of a SAR. To exercise any outstanding SAR, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such SAR. The appreciation distribution payable on the exercise of a SAR will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the SAR) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such SAR, and with respect to which the Participant is exercising the SAR on such date, over (B) the aggregate strike price of the number of Common Stock equivalents with respect to which the Participant is exercising the SAR on such date. The appreciation distribution may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Stock Award Agreement evidencing such SAR.

(e) Transferability of Options and SARs. The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board will determine. In the absence of such a determination by the Board to the contrary, the restrictions set forth in this Section 5(e) on the transferability of Options and SARs will apply. Notwithstanding the foregoing or anything in the Plan or an Award Agreement to the contrary, no Option or SAR may be transferred to any financial institution without prior stockholder approval.

(i) Restrictions on Transfer. An Option or SAR will not be transferable except by will or by the laws of descent and distribution (or pursuant to subsections (ii) and (iii) below), and will be exercisable during the lifetime of the Participant only by the Participant. Subject to the foregoing paragraph, the Board may permit transfer of the Option or SAR in a manner that is not prohibited by applicable tax and securities laws. Except as explicitly provided in the Plan, neither an Option nor a SAR may be transferred for consideration.

(ii) Domestic Relations Orders. Subject to the approval of the Board or a duly authorized Officer, an Option or SAR may be transferred pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulations Section 1.421-1(b)(2). If an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(iii) Beneficiary Designation. Subject to the approval of the Board or a duly authorized Officer, a Participant may, by delivering written notice to the Company, in a form approved by the Company (or the designated broker), designate a third party who, on the death of the Participant, will thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, upon the death of the Participant, the executor or administrator of the Participant's estate will be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. However, the Company may prohibit designation of a beneficiary at any time, including due to any conclusion by the Company that such designation would be inconsistent with the provisions of applicable laws.

(f) Vesting Generally. The total number of shares of Common Stock subject to an Option or SAR may vest and become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of Performance Goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary. The provisions of this Section 5(f) are subject to Sections 2(g) and 2(i) and any Option or SAR provisions governing the minimum number of shares of Common Stock as to which an Option or SAR may be exercised.

(g) Termination of Continuous Service. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company or an Affiliate, if a Participant's Continuous Service terminates (other than for Cause and other than upon the Participant's death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Stock Award as of the date of termination of Continuous Service) within the period of time ending on the earlier of (i) the date three months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the applicable Stock Award Agreement), and (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR (as applicable) within the applicable time frame, the Option or SAR will terminate.

(h) Extension of Termination Date. If the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause and other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR will terminate on the earlier of (i) the expiration of a total period of time (that need not be consecutive) equal to the applicable post termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement. In addition, unless otherwise provided in a Participant's Stock Award Agreement, if the sale of any Common Stock received on exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR will terminate on the earlier of (i) the expiration of a period of months (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option or SAR would not be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement.

(i) Disability of Participant. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company or an Affiliate, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date 12 months following such termination of Continuous Service (or such longer or shorter period specified in the Stock Award Agreement), and (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the applicable time frame, the Option or SAR (as applicable) will terminate.

(j) Death of Participant. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company or an Affiliate, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Stock Award Agreement for exercisability after the termination of the Participant's Continuous Service for a reason other than death, then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date 18 months following the date of death (or such longer or shorter period specified in the Stock Award Agreement), and (ii) the expiration of the term of such Option or SAR as set forth in the Stock Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the applicable time frame, the Option or SAR (as applicable) will terminate.

(k) Termination for Cause. Except as explicitly provided otherwise in a Participant's Stock Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a

Participant's Continuous Service is terminated for Cause, the Option or SAR will terminate immediately upon such Participant's termination of Continuous Service, and the Participant will be prohibited from exercising his or her Option or SAR from and after the time of such termination of Continuous Service.

(l) Non-Exempt Employees. If an Option or SAR is granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the Option or SAR will not be first exercisable for any shares of Common Stock until at least six months following the date of grant of the Option or SAR (although the Stock Award may vest prior to such date). Consistent with the provisions of the Worker Economic Opportunity Act, (i) if such non-exempt Employee dies or suffers a Disability, (ii) upon a Corporate Transaction in which such Option or SAR is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Participant's retirement (as such term may be defined in the Participant's Stock Award Agreement in another agreement between the Participant and the Company or an Affiliate, or, if no such definition, in accordance with the Company's or an Affiliate's then current employment policies and guidelines), the vested portion of any Options and SARs may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay. To the extent permitted and/or required for compliance with the Worker Economic Opportunity Act to ensure that any income derived by a non-exempt employee in connection with the exercise, vesting or issuance of any shares under any other Stock Award will be exempt from the employee's regular rate of pay, the provisions of this Section 5(l) will apply to all Stock Awards and are hereby incorporated by reference into such Stock Award Agreements.

6. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS AND SARs.

(a) Restricted Stock Awards. Each Restricted Stock Award Agreement will be in such form and will contain such terms and conditions as the Board will deem appropriate. To the extent consistent with the Company's bylaws, at the Board's election, shares of Common Stock may be (x) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (y) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical. Each Restricted Stock Award Agreement will conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. Subject to Sections 2(g) and 2(i), shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) Termination of Participant's Continuous Service. If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) Transferability. Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement will be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board will determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock

Award Agreement. Notwithstanding the foregoing or anything in the Plan or a Restricted Stock Award Agreement to the contrary, no Restricted Stock Award may be transferred to any financial institution without prior stockholder approval.

(b) Restricted Stock Unit Awards. Each Restricted Stock Unit Award Agreement will be in such form and will contain such terms and conditions as the Board will deem appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical. Each Restricted Stock Unit Award Agreement will conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. Subject to Sections 2(g) and 2(i), at the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(iii) Payment. A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) Additional Restrictions. At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) Termination of Participant's Continuous Service. Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(c) Performance Stock Awards.

(i) Performance Stock Awards. A Performance Stock Award is a Stock Award that is payable (including that may be granted, may vest or may be exercised) contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Stock Award may, but need not, require the Participant's completion of a specified period of Continuous Service. Subject to Sections 2(g) and 2(i), the length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained will be conclusively determined by the Board, in its sole discretion. In addition, to the extent permitted by applicable law and the applicable Stock Award Agreement, the Board may determine that cash may be used in payment of Performance Stock Awards.

(ii) Board Discretion. The Board retains the discretion to reduce or eliminate and to make other appropriate adjustments selected by the Board the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for a Performance Period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the Stock Award Agreement.

(d) Other Stock Awards. Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., options or stock rights with

an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards provided for under Section 5 and the preceding provisions of this Section 6. Subject to the provisions of the Plan (including, but not limited to, Sections 2(g) and 2(i)), the Board will have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

7. COVENANTS OF THE COMPANY.

(a) **Availability of Shares.** The Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy then-outstanding Stock Awards.

(b) **Securities Law Compliance.** The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however*, that this undertaking will not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant will not be eligible for the grant of a Stock Award or the subsequent issuance of cash or Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

(c) **No Obligation to Notify or Minimize Taxes.** The Company will have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company will have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

8. MISCELLANEOUS.

(a) **Use of Proceeds from Sales of Common Stock.** Proceeds from the sale of shares of Common Stock pursuant to Stock Awards will constitute general funds of the Company.

(b) **Corporate Action Constituting Grant of Stock Awards.** Corporate action constituting a grant by the Company of a Stock Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Stock Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (e.g., Board consents, resolutions or minutes) documenting the corporate action constituting the grant contain terms (e.g., exercise price, vesting schedule or number of shares) that are inconsistent with those in the Stock Award Agreement or related grant documents as a result of a clerical error in the papering of the Stock Award Agreement or related grant documents, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Stock Award Agreement or related grant documents.

(c) **Stockholder Rights.** No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to a Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares of Common Stock under, the Stock Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to such Stock Award has been entered into the books and records of the Company.

(d) No Employment or Other Service Rights. Nothing in the Plan, any Stock Award Agreement or any other instrument executed thereunder or in connection with any Stock Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or will affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) Change in Time Commitment. In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Stock Award to the Participant, the Board has the right in its sole discretion to (x) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Stock Award that is scheduled to vest or become payable after the date of such change in time commitment, and (y) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Stock Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Stock Award that is so reduced or extended.

(f) Incentive Stock Option Limitations. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds \$100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with such rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(g) Investment Assurances. The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that such Participant is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, will be inoperative if (A) the issuance of the shares upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (B) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(h) Withholding Obligations. Unless prohibited by the terms of a Stock Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to a Stock Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Stock Award; (iii) withholding cash from a Stock Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; or (v) by such other method as may be set forth in the Stock Award Agreement.

(i) Electronic Delivery. Any reference herein to a “written” agreement or document will include any agreement or document delivered electronically, filed publicly at www.sec.gov (or any successor website thereto) or posted on the Company’s intranet (or other shared electronic medium controlled by the Company to which the Participant has access).

(j) Deferrals. To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Stock Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company or an Affiliate. The Board is authorized to make deferrals of Stock Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant’s termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(k) Compliance with Section 409A of the Code. Unless otherwise expressly provided for in a Stock Award Agreement, the Plan and Stock Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the Stock Awards granted hereunder exempt from Section 409A of the Code, and, to the extent not so exempt, in compliance with Section 409A of the Code. If the Board determines that any Stock Award granted hereunder is not exempt from and is therefore subject to Section 409A of the Code, the Stock Award Agreement evidencing such Stock Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code, and to the extent a Stock Award Agreement is silent on terms necessary for compliance, such terms are hereby incorporated by reference into the Stock Award Agreement. Notwithstanding anything to the contrary in this Plan (and unless the Stock Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding a Stock Award that constitutes “deferred compensation” under Section 409A of the Code is a “specified employee” for purposes of Section 409A of the Code, no distribution or payment of any amount that is due because of a “separation from service” (as defined in Section 409A of the Code without regard to alternative definitions thereunder) will be issued or paid before the date that is six months following the date of such Participant’s “separation from service” (as defined in Section 409A of the Code without regard to alternative definitions thereunder) or, if earlier, the date of the Participant’s death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code, and any amounts so deferred will be paid in a lump sum on the day after such six month period elapses, with the balance paid thereafter on the original schedule.

(l) Clawback/Recovery. All Stock Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company (i) is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company’s securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law or (ii) otherwise adopts, to the extent applicable and permissible under applicable laws. In addition, the Board may impose such other clawback, recovery or recoupment provisions in a Stock Award Agreement as the Board determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of an event constituting Cause. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for “good reason” or “constructive termination” (or similar term) under any agreement with the Company or an Affiliate.

9. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) Capitalization Adjustments. In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to

Section 3(a), (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), and (iii) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board will make such adjustments, and its determination will be final, binding and conclusive.

(b) Dissolution or Liquidation. Except as otherwise provided in the Stock Award Agreement or other written agreement between a Participant and the Company or an Affiliate, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) will terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service.

(c) Transactions. The following provisions shall apply to Stock Awards in the event of a Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. In the event of a Transaction, then, notwithstanding any other provision of the Plan, the Board shall take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting, in whole or in part, of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Transaction as the Board shall determine (or, if the Board shall not determine such a date, to the date that is five days prior to the effective date of the Transaction), with such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Transaction; *provided, however*, that the Board may require Participants to complete and deliver to the Company a notice of exercise before the effective date of a Transaction, which exercise is contingent upon the effectiveness of such Transaction;

(iv) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Transaction, in exchange for such cash consideration, if any, as the Board, in its sole discretion, may consider appropriate; and

(vi) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Transaction, in exchange for a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of the Stock Award immediately prior to the effective time of the Transaction, over (B) any exercise price payable by such holder in connection with such exercise. For clarity, this payment may be zero (\$0) if the value of the property is equal to or less than the exercise price. Payments under this provision may be delayed to the same extent that payment of consideration to the holders of the Common Stock in connection with the Transaction is delayed as a result of escrows, earn outs, holdbacks or any other contingencies.

The Board need not take the same action or actions with respect to all Stock Awards or portions thereof or with respect to all Participants. The Board may take different actions with respect to the vested and unvested portions of a Stock Award.

(d) Change in Control. A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration will occur.

10. PLAN TERM; EARLIER TERMINATION OR SUSPENSION OF THE PLAN.

The Board may suspend or terminate the Plan at any time. No Incentive Stock Options may be granted after the tenth anniversary of the earlier of (i) the Adoption Date, or (ii) the date the Plan is approved by the stockholders of the Company. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

11. EFFECTIVE DATE OF THE PLAN.

The Plan will become effective on the Effective Date.

12. CHOICE OF LAW.

The law of the State of Delaware will govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

13. DEFINITIONS. As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) "Adoption Date" means April 22, 2019, which is the date the Plan was adopted by the Compensation Committee of the Board.

(b) "Affiliate" means, at the time of determination, any "parent" or "subsidiary" of the Company as such terms are defined in Rule 405 of the Securities Act. The Board will have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(c) "Appreciation Award" means (i) a stock option or stock appreciation right granted under any of the Prior Plans or (ii) an Option or Stock Appreciation Right, in each case with respect to which the exercise or strike price is at least 100% of the Fair Market Value of the Common Stock subject to the stock option or stock appreciation right, or Option or Stock Appreciation Right, as applicable, on the date of grant.

(d) "Board" means the Board of Directors of the Company.

(e) "Capital Stock" means each and every class of common stock of the Company, regardless of the number of votes per share.

(f) "Capitalization Adjustment" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Adoption Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(g) “Cause” shall have the meaning ascribed to such term in any written agreement between the Participant and the Company or an Affiliate defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) such Participant’s commission of any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (ii) such Participant’s attempted commission of, or participation in, a fraud or act of dishonesty against the Company; (iii) such Participant’s intentional, material violation of any contract or agreement between the Participant and the Company or of any statutory duty owed to the Company; (iv) such Participant’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; or (v) such Participant’s gross misconduct. The determination that a termination of the Participant’s Continuous Service is either for Cause or without Cause shall be made by the Company, in its sole discretion. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Stock Awards held by such Participant shall have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(h) “Change in Control” means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company’s then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control will not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company’s securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, or (C) solely because the level of Ownership held by any Exchange Act Person (the “**Subject Person**”) exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control will be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than 50% of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition;

(iv) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company will otherwise occur, except for a liquidation into a parent corporation; or

(v) individuals who, on the Adoption Date, are members of the Board (the “**Incumbent Board**”) cease for any reason to constitute at least a majority of the members of the Board; *provided, however*, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member will, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing definition or any other provision of the Plan, the term Change in Control will not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company and the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant will supersede the foregoing definition with respect to Stock Awards subject to such agreement; *provided, however*, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition will apply.

(i) “**Code**” means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(j) “**Committee**” means a committee of one or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(k) “**Common Stock**” means the common stock of the Company, having one vote per share.

(l) “**Company**” means Bellicum Pharmaceuticals, Inc., a Delaware corporation.

(m) “**Consultant**” means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a “Consultant” for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company’s securities to such person.

(n) “**Continuous Service**” means that the Participant’s service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant’s service with the Company or an Affiliate, will not terminate a Participant’s Continuous Service; *provided, however*, that if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, in its sole discretion, such Participant’s Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party’s sole discretion, may determine whether Continuous Service will be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence will be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company’s leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(o) “**Corporate Transaction**” means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board, in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least 50% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(p) “**Director**” means a member of the Board.

(q) “**Disability**” means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than 12 months, as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(r) “**Effective Date**” means the effective date of this Plan document, which is the date of the annual meeting of stockholders of the Company held in 2019.

(s) “**Employee**” means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an “Employee” for purposes of the Plan.

(t) “**Entity**” means a corporation, partnership, limited liability company or other entity.

(u) “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(v) “**Exchange Act Person**” means any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that “Exchange Act Person” will not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company’s then outstanding securities.

(w) “**Fair Market Value**” means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock will be, unless otherwise determined by the Board, the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in a source the Board deems reliable.

(ii) Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, the Fair Market Value will be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.

(x) **“Full Value Award”** means (i) a stock award granted under any of the Prior Plans or (ii) a Stock Award, in each case that is not an Appreciation Award.

(y) **“Incentive Stock Option”** means an option granted pursuant to Section 5 of the Plan that is intended to be, and qualifies as, an “incentive stock option” within the meaning of Section 422 of the Code.

(z) **“Non-Employee Director”** means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act (“**Regulation S-K**”)), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a “non-employee director” for purposes of Rule 16b-3.

(aa) **“Nonstatutory Stock Option”** means any Option granted pursuant to Section 5 of the Plan that does not qualify as an Incentive Stock Option.

(bb) **“Officer”** means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(cc) **“Option”** means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(dd) **“Option Agreement”** means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement will be subject to the terms and conditions of the Plan.

(ee) **“Optionholder”** means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(ff) **“Other Stock Award”** means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 6(d).

(gg) **“Other Stock Award Agreement”** means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement will be subject to the terms and conditions of the Plan.

(hh) **“Own,” “Owned,” “Owner,” “Ownership”** means a person or Entity will be deemed to “Own,” to have “Owned,” to be the “Owner” of, or to have acquired “Ownership” of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(ii) **“Participant”** means a person to whom a Stock Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(jj) **“Performance Criteria”** means the one or more criteria that the Board will select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that will be used to establish such Performance Goals may be based on any one of, or combination of, the following as determined

by the Board: (i) earnings (including earnings per share and net earnings); (ii) earnings before interest, taxes and depreciation; (iii) earnings before interest, taxes, depreciation and amortization; (iv) earnings before interest, taxes, depreciation, amortization and legal settlements; (v) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (vi) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (vii) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (viii) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation, other non-cash expenses and changes in deferred revenue; (ix) total stockholder return; (x) return on equity or average stockholder's equity; (xi) return on assets, investment, or capital employed; (xii) stock price; (xiii) margin (including gross margin); (xiv) income (before or after taxes); (xv) operating income; (xvi) operating income after taxes; (xvii) pre-tax profit; (xviii) operating cash flow; (xix) sales or revenue targets; (xx) increases in revenue or product revenue; (xxi) expenses and cost reduction goals; (xxii) improvement in or attainment of working capital levels; (xxiii) economic value added (or an equivalent metric); (xxiv) market share; (xxv) cash flow; (xxvi) cash flow per share; (xxvii) cash balance; (xxviii) cash burn; (xxix) cash collections; (xxx) share price performance; (xxxi) debt reduction; (xxxii) implementation or completion of projects or processes (including, without limitation, clinical trial initiation, clinical trial enrollment and dates, clinical trial results, regulatory filing submissions, regulatory filing acceptances, regulatory or advisory committee interactions, regulatory approvals, and product supply); (xxxiii) stockholders' equity; (xxxiv) capital expenditures; (xxxv) debt levels; (xxxvi) operating profit or net operating profit; (xxxvii) workforce diversity; (xxxviii) growth of net income or operating income; (xxxix) billings; (xl) bookings; (xli) employee retention; (xlii) initiation of studies by specific dates; (xliii) budget management; (xliv) submission to, or approval by, a regulatory body (including, but not limited to the U.S. Food and Drug Administration) of an applicable filing or a product; (xlv) regulatory milestones; (xlvi) progress of internal research or development programs; (xlvii) acquisition of new customers; (xlviii) customer retention and/or repeat order rate; (xlix) improvements in sample and test processing times; (l) progress of partnered programs; (li) partner satisfaction; (lii) timely completion of clinical trials; (liii) submission of 510(k)s or pre-market approvals and other regulatory achievements; (liv) milestones related to samples received and/or tests or panels run; (lv) expansion of sales in additional geographies or markets; (lvi) research progress, including the development of programs; (lvii) strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property; and (lviii) and any other measures of performance selected by the Board.

(kk) "Performance Goals" means, for a Performance Period, the one or more goals established by the Board for the Performance Period based upon the Performance Criteria. Performance Goals may be based on a Company-wide basis, with respect to one or more business units, divisions, Affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Board (i) in the Stock Award Agreement at the time the Stock Award is granted or (ii) in such other document setting forth the Performance Goals at the time the Performance Goals are established, the Board will appropriately make adjustments in the method of calculating the attainment of Performance Goals for a Performance Period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a Performance Period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of common stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under the Company's bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; (12) to

exclude the effects of the timing of acceptance for review and/or approval of submissions to the U.S. Food and Drug Administration or any other regulatory body; and (13) to make other appropriate adjustments selected by the Board. In addition, the Board retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for such Performance Period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the Stock Award Agreement.

(ll) “**Performance Period**” means the period of time selected by the Board over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant’s right to and the payment of a Stock Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Board.

(mm) “**Performance Stock Award**” means a Stock Award granted under the terms and conditions of Section 6(c)(i).

(nn) “**Plan**” means this Bellicum Pharmaceuticals, Inc. 2019 Equity Incentive Plan.

(oo) “**Restricted Stock Award**” means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

(pp) “**Restricted Stock Award Agreement**” means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement will be subject to the terms and conditions of the Plan.

(qq) “**Restricted Stock Unit Award**” means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

(rr) “**Restricted Stock Unit Award Agreement**” means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement will be subject to the terms and conditions of the Plan.

(ss) “**Rule 16b-3**” means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

(tt) “**Securities Act**” means the Securities Act of 1933, as amended.

(uu) “**Stock Appreciation Right**” or “**SAR**” means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 5.

(vv) “**Stock Appreciation Right Agreement**” means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement will be subject to the terms and conditions of the Plan.

(ww) “**Stock Award**” means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right, a Performance Stock Award or any Other Stock Award.

(xx) “**Stock Award Agreement**” means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement will be subject to the terms and conditions of the Plan.

(yy) “**Subsidiary**” means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such

corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation will have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

(zz) “**Ten Percent Stockholder**” means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any Affiliate.

(aaa) “**Transaction**” means a Corporate Transaction or a Change in Control.