UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 14A

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

Filed by the Registrant \boxtimes Filed by a Party other than the Registrant \square

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

Merrimack 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:

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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.

(1) Amount Previously Paid:

- (2) Form, Schedule or Registration Statement No.:
- (3) Filing Party:

(4) Date Filed:

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PRELIMINARY PROXY MATERIALS—SUBJECT TO COMPLETION

MERRIMACK PHARMACEUTICALS, INC. One Broadway, 14th Floor Cambridge, MA 02142

April [__], 2020

Dear Merrimack Pharmaceuticals, Inc. Stockholder:

You are cordially invited to our Annual Meeting of Stockholders on Thursday, May 28, 2020, beginning at 9:00 a.m., Eastern time, via the Internet at a virtual web conference at www.proxydocs.com/MACK. The enclosed notice of annual meeting of stockholders sets forth the proposals that will be presented at the meeting, which are described in more detail in the enclosed proxy statement. Our board of directors recommends that you vote "FOR" each of the director nominees in Proposal 1 (Gary L. Crocker, Eric D. Andersen, Noah G. Levy, Ulrik B. Nielsen and Russell T. Ray), "FOR" Proposal 2 ("say-on-pay"), "FOR" Proposal 3 (ratification of our independent auditors), "FOR" Proposal 4 (approval of the Section 382 Rights Plan) and "AGAINST" Proposal 5 (stockholder proposal).

To support the health and well-being of our stockholders, officers and directors in light of the recent novel coronavirus ("COVID-19") outbreak, our annual meeting will be a "virtual meeting" of stockholders, which will be conducted exclusively via the Internet at a virtual web conference. There will not be a physical meeting location, and stockholders will not be able to attend the annual meeting in person. This means that you can attend the annual meeting online, vote your shares during the online meeting and submit questions during the online meeting by visiting the above-mentioned Internet site. In light of the public health and safety concerns related to COVID-19, we believe that hosting a "virtual meeting" will enable greater stockholder attendance and participation from any location around the world. We intend to resume our historical practice of holding an in-person meeting next year.

Your vote is important. Whether or not you plan to attend the annual meeting online, please vote as soon as possible. Voting by proxy will ensure your representation at the virtual meeting if you do not attend online. Please review the instructions on the proxy card regarding your voting options.

Very truly yours,

Gary L. Crocker *President*

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PRELIMINARY PROXY MATERIALS—SUBJECT TO COMPLETION

MERRIMACK PHARMACEUTICALS, INC. One Broadway, 14th Floor Cambridge, MA 02142

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS to be held on Thursday, May 28, 2020

The 2020 Annual Meeting of Stockholders (the "2020 Annual Meeting") of Merrimack Pharmaceuticals, Inc., a Delaware corporation ("Merrimack" or the "Company"), will be held on Thursday, May 28, 2020, at 9:00 a.m., Eastern time, via the Internet at a virtual web conference at www.proxydocs.com/MACK, to consider and act upon the following matters:

- 1. To elect five directors for a one year term, to hold office until the 2021 Annual Meeting of Stockholders;
- 2. To hold a non-binding, advisory vote on executive compensation;
- 3. To ratify the selection of Marcum LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020;
- 4. To approve the Section 382 Rights Plan, dated as of December 3, 2019, by and between the Company and Computershare Trust Company, N.A.;
- 5. To consider a stockholder proposal to require an independent board chair; and
- 6. To transact such other business as may properly come before the 2020 Annual Meeting or any adjournment or postponement thereof.

In light of the novel coronavirus ("COVID-19") outbreak, for health and well-being of our stockholders, officers and directors, we have determined that the 2020 Annual Meeting will be held in a virtual meeting format only, via the Internet, with no physical in-person meeting. At our virtual 2020 Annual Meeting, stockholders will be able to attend, vote and submit questions by visiting www.proxydocs.com/MACK. In order to attend the meeting online, vote your shares electronically during the meeting and submit questions, you must register in advance at www.proxydocs.com/MACK prior to the deadline of May 26, 2020 at 5:00 p.m., Eastern time. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the meeting and will also permit you to submit questions. Please be sure to follow instructions found on your Notice, proxy card and/or voting instruction form and subsequent instructions that will be delivered to you via email. Further information about how to attend the 2020 Annual Meeting online, vote your shares online during the meeting and submit questions during the meeting is included in the accompanying Proxy Statement.

Your vote is important. Whether or not you expect to be virtually present, please sign, date and return the enclosed proxy card in the pre-addressed envelope provided for that purpose as promptly as possible. No postage is required if mailed in the United States. In addition to mailing in your proxy card, you may submit a proxy over the Internet or by telephone. The instructions for submitting a proxy over the Internet or by telephone are provided on your proxy card.

Stockholders of record at the close of business on April 3, 2020 will be entitled to notice of and to vote at the 2020 Annual Meeting or any adjournment or postponement thereof. This Notice, the accompanying Proxy Statement and a form of proxy card are being mailed beginning on or about April [__], 2020 to all stockholders entitled to vote at the 2020 Annual Meeting.

A complete list of registered stockholders will be available to stockholders of record during the 2020 Annual Meeting for examination using the unique link provided via email following the completion of registration at www.proxydocs.com/MACK.

If you have any questions or require any assistance with voting your shares, please contact our proxy solicitor: Morrow Sodali, LLC, toll free at (800) 662-5200.

By Order of the Board of Directors,

Gary L. Crocker *President*

Cambridge, Massachusetts

April [__], 2020

WHETHER OR NOT YOU EXPECT TO ATTEND THE 2020 ANNUAL MEETING ONLINE, PLEASE COMPLETE, DATE AND SIGN THE ENCLOSED PROXY CARD AND MAIL IT PROMPTLY IN THE ENCLOSED ENVELOPE IN ORDER TO HELP ENSURE REPRESENTATION OF YOUR SHARES AT THE 2020 ANNUAL MEETING. NO POSTAGE NEED BE AFFIXED IF THE PROXY CARD IS MAILED IN THE UNITED STATES. ALTERNATIVELY, YOU MAY SUBMIT YOUR PROXY OVER THE INTERNET OR BY TELEPHONE BY FOLLOWING THE INSTRUCTIONS SET FORTH ON THE ENCLOSED PROXY CARD.

FURTHER INFORMATION ABOUT HOW TO ATTEND THE 2020 ANNUAL MEETING ONLINE, VOTE YOUR SHARES ONLINE DURING THE MEETING AND SUBMIT QUESTIONS DURING THE MEETING IS INCLUDED IN THE ACCOMPANYING PROXY STATEMENT.

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PRELIMINARY PROXY MATERIALS—SUBJECT TO COMPLETION

MERRIMACK PHARMACEUTICALS, INC. One Broadway, 14th Floor Cambridge, MA 02142

PROXY STATEMENT FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON MAY 28, 2020

Information About the Annual Meeting

This proxy statement is furnished in connection with the solicitation of proxies by the board of directors (the "board of directors" or the "board") of Merrimack Pharmaceuticals, Inc. ("Merrimack," the "Company," "we" or "us") for use at the 2020 Annual Meeting of Stockholders (the "Annual Meeting" or the "2020 Annual Meeting") to be held on Thursday, May 28, 2020, at 9:00 a.m., Eastern time, via the Internet at a virtual web conference at www.proxydocs.com/MACK, and at any adjournment or postponement thereof. On April 3, 2020, the record date for the determination of stockholders entitled to vote at the Annual Meeting, there were outstanding and entitled to vote an aggregate of 13,380,243 shares of our common stock, \$0.01 par value per share ("common stock"). Each share of common stock entitles the record holder thereof to one vote on each of the matters to be voted on at the Annual Meeting.

To support the health and well-being of our stockholders, officers and directors in light of the recent novel coronavirus ("COVID-19") outbreak, our 2020 Annual Meeting will be a virtual meeting of stockholders where stockholders will participate by accessing a website using the Internet. There will not be a physical meeting location. In light of the public health and safety concerns related to COVID-19, we believe that hosting a virtual meeting will facilitate stockholder attendance and participation at our 2020 Annual Meeting by enabling stockholders to participate remotely from any location around the world. We have designed the virtual Annual Meeting to provide the same rights and opportunities to participate as stockholders would have at an in-person meeting, including the right to vote and ask questions through the virtual meeting platform. We intend to return to holding an in-person annual meeting in 2021.

We will host the Annual Meeting live online via webcast. You may attend the Annual Meeting live online by visiting www.proxydocs.com/MACK. In order to attend the Annual Meeting online, you must register in advance at www.proxydocs.com/MACK prior to the deadline of May 26, 2020 at 5:00 p.m., Eastern time. Upon completing your registration, you will receive further instructions via email, including your unique links that will allow you access to the meeting. Please be sure to follow instructions found on your Notice, proxy card and/or voting instruction form and subsequent instructions that will be delivered to you via email.

The webcast will start at 9:00 a.m., Eastern time, on May 28, 2020. Instructions on how to attend and participate in the meeting online will be sent to you via email, upon completing your registration.

We will have technicians standing by and ready to assist you with any technical difficulties you may have accessing the virtual meeting starting at 9:00 a.m., Eastern time, on May 28, 2020. If you encounter any difficulties accessing the virtual meeting during registration or at the time of the virtual meeting, please contact technical support by following the instructions provided to you upon registration for the Annual Meeting.

If you wish to submit a question on the day of the Annual Meeting, beginning at 8:45 a.m., Eastern time, on May 28, 2020, you may log into, and ask a question on, the virtual meeting platform using the unique link provided to you via email following the completion of your registration at www.proxydocs.com/MACK, and follow the instructions there. Our virtual meeting will be governed by our rules of conduct and procedures which will be posted at www.proxydocs.com/MACK in advance of the meeting. The rules of conduct and procedures will address the ability of stockholders to ask questions during the meeting, including rules on permissible topics, and rules for how questions and comments will be recognized and disclosed to meeting participants.

This proxy statement, the enclosed proxy card and our 2019 annual report to stockholders are being mailed beginning on or about April [__], 2020 to all stockholders entitled to vote at the 2020 Annual Meeting. A complete list of registered stockholders will be available to stockholders of record during the 2020 Annual Meeting for examination using the unique link provided via email following the completion of registration at www.proxydocs.com/MACK.

Your vote is important no matter how many shares you own. Please take the time to vote. Take a moment to read the instructions below. Choose the way to vote that is easiest and most convenient for you, and cast your vote as soon as possible.

Important Information About Voting

If you are the "record holder" of your shares, meaning that you own your shares in your own name and not through a bank, broker or other nominee, you may cause your shares to be voted in one of the following ways:

- (1) *To vote using the proxy card*, simply complete, sign and date the accompanying proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us before the Annual Meeting, we will vote your shares as you direct.
- (2) *To vote over the Internet*, follow the "Vote by Internet" instructions on the accompanying proxy card. If you vote over the Internet, you do not need to complete and mail your proxy card or vote your proxy by telephone.
- (3) *To vote by telephone*, follow the "Vote by Phone" instructions on the accompanying proxy card. If you vote by telephone, you do not need to complete and mail your proxy card or vote your proxy over the Internet.
- (4) In order to attend the Annual Meeting online and vote online during the Annual Meeting, you must register in advance at www.proxydocs.com/MACK prior to the deadline of May 26, 2020 at 5:00 p.m., Eastern time. You may vote your shares online while virtually attending the Annual Meeting by following instructions found on your Notice, proxy card and/or voting instruction form and subsequent instructions that will be delivered to you via email. If you vote by proxy prior to the Annual Meeting and choose to attend the Annual Meeting online, there is no need to vote again during the Annual Meeting unless you wish to change your vote.

All proxies that are executed or are otherwise submitted over the Internet or by telephone will be voted on the matters set forth in the accompanying Notice of Annual Meeting of Stockholders in accordance with the stockholders' instructions. However, if no choice is specified on an executed or otherwise submitted proxy card as to one or more of the proposals, the proxy will be voted in accordance with our board of directors' recommendations on such proposals as set forth in this proxy statement.

If you receive multiple proxy statements or proxy cards, your shares are likely registered differently or are in more than one account, such as individually and also jointly with your spouse. Please vote each and every proxy card or voting instruction form you receive.

After you have submitted a proxy, you may still change your vote and revoke your proxy prior to the Annual Meeting by doing any one of the following things:

- submitting a new proxy by following the instructions on the enclosed proxy card up until 11:59 p.m., Eastern time, the day before the Annual Meeting;
- signing another proxy card with a later date and arranging for delivery of that proxy card by mail prior to the start of the Annual Meeting;
- giving our Corporate Secretary a written notice before the Annual Meeting that you want to revoke your proxy; or
- voting online while attending the virtual Annual Meeting.

Your attendance at the virtual Annual Meeting alone will not revoke your proxy.

If the shares you own are held in "street name" by a bank, broker or other nominee record holder, which, for convenience, we collectively refer to in this proxy statement as brokerage firms, your brokerage firm, as the record holder of your shares, is required to your shares according to your instructions. In order for your shares to be voted, you will need to follow the directions your brokerage firm provides you. Many brokerage firms also offer the option of providing for voting instructions over the Internet or by telephone, directions for which, if available, would be provided by your brokerage firm on the voting instruction form that it delivers to you. Under applicable stock exchange rules, if you do not give instructions to your brokerage firm subject to these rules, it will still be able to vote your shares with respect to certain "discretionary" items, but will not be allowed to vote your shares with respect to certain "non-discretionary" items. The ratification of Marcum LLP as our independent registered public accounting firm (Proposal 3) is considered to be a "discretionary" item, and your brokerage firm will be able to vote with respect to that proposal even if it does not receive instructions from you, so long as it holds your shares in its name. The election of directors (Proposal 1), the non-binding, advisory vote on executive compensation, or "say-on-pay" vote (Proposal 2), the approval of a Section 382 Rights Plan, dated as of December 3, 2019, by and between us and Computershare Trust Company, N.A. (the "Section 382 Rights Plan") (Proposal 4) and the stockholder proposal to require an independent board chair (Proposal 5), are "non-discretionary" items, meaning that if you do not instruct your brokerage firm on how to vote with respect to either of these proposals, your brokerage firm will not vote with respect to that proposal and your shares will be counted as "broker non-votes." "Broker non-votes" are shares that are held in "street name" by a brokerage firm that indicates on its proxy that it does not have or did not exercise discretionary authority to vote on a particular matter. Please instruct your brokerage firm how to vote your shares using the voting instruction form provided by your brokerage firm or following any instructions provided by your brokerage firm for submitting a proxy for your shares over the Internet or telephonically, if available. You must request a legal proxy from your bank, broker or other nominee record holder in order to vote during the Annual Meeting. In addition, you will need your control number included on your Notice, proxy card or voting instruction form in order to demonstrate proof of beneficial ownership and to be able to vote during the Annual Meeting. Instructions on how to attend and participate online, including how to demonstrate proof of stock ownership, are posted at www.proxydocs.com/MACK.

Stockholders that owned stock in "street name" as of the record date (April 3, 2020) may virtually attend the Annual Meeting and vote your shares online while attending the meeting with your control number included on your voting instruction form.

Votes Required

The holders of a majority in voting power of the shares of our common stock issued and outstanding and entitled to vote at the Annual Meeting will constitute a quorum for the transaction of business at the Annual Meeting. Shares of common stock represented in person or by proxy (including "broker non-votes" and shares that abstain or vote with respect to one or more but less than all of the matters presented for stockholder approval) will be counted for purposes of determining whether a quorum is present at the Annual Meeting. Shares present virtually during the Annual Meeting will be considered shares of common stock represented in person at the meeting. The following votes are required for approval of the proposals being presented at the Annual Meeting:

Proposal 1: Election of Directors. A nominee will be elected as a director at the Annual Meeting if the nominee receives a plurality of the votes cast "FOR" the applicable seat on our board of directors.

Proposal 2: Advisory Vote on Executive Compensation, or "Say-on-Pay." The affirmative vote of the holders of shares of common stock representing a majority of the votes cast on the matter is required to approve the advisory "say-on-pay" vote on the compensation of our named executive officers. Because the stockholders' vote on this proposal is advisory, it will not be binding on our board. However, our board, including our organization and compensation committee, values the opinions of our stockholders and, to the extent there are a substantial number of votes cast against the executive officer compensation as disclosed in this proxy statement, we will consider our stockholders' concerns and evaluate what actions may be appropriate to address those concerns.

Proposal 3: Ratification of Independent Auditors. The affirmative vote of the holders of shares of common stock representing a majority of the votes cast on the matter is required for the ratification of the selection of Marcum as our independent registered public accounting firm for the current fiscal year.

Proposal 4: Approval of the Section 382 Rights Plan. The affirmative vote of the holders of shares of common stock representing a majority of the votes cast on the matter is required for the approval of the adoption of the Section 382 Rights Plan.

Proposal 5: Stockholder Proposal to Require an Independent Board Chair. The affirmative vote of the holders of shares of common stock representing a majority of the votes cast on the matter is required to approve the stockholder proposal.

Shares that abstain from voting as to a particular matter on properly executed proxy cards and shares held in "street name" by brokerage firms who indicate on their proxies that they do not have discretionary authority to vote such shares as to a particular matter will not be counted as votes in favor of such matter, and will also not be counted as shares voting on such matter. Accordingly, abstentions and "broker non-votes" will have no effect on the voting on Proposals 1, 2, 3, 4 and 5 referenced above.

Recommendations of the Board of Directors

Our board unanimously recommends that you vote your shares in accordance with the instructions on the proxy card as follows:

- "FOR" the election of the five directors nominated by our board as set forth in this proxy statement;
- "FOR" the approval, in an advisory "say-on-pay" vote, of the compensation of our named executive officers;

- "FOR" the ratification of the selection of Marcum as our independent registered public accounting firm for the fiscal year ending December 31, 2020;
- "FOR" the approval of the adoption of the Section 382 Rights Plan; and
 - "AGAINST" the stockholder proposal to require an independent board chair.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to Be Held on May 28, 2020:

This proxy statement and our 2019 annual report to stockholders are available at www.proxyvote.com for viewing, downloading and printing.

A copy of our Annual Report on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission, or SEC, except for exhibits, will be furnished without charge to any stockholder upon written or oral request to Merrimack Pharmaceuticals, Inc., One Broadway, 14th Floor, Cambridge, MA 02142, Attention: Corporate Secretary, Telephone: (617) 441-1000, Email: info@merrimack.com.

CORPORATE GOVERNANCE

Board of Directors

Biographies of the Director Nominees

Set forth below are the names and certain information about each of our director nominees as of April 3, 2020. The information presented includes each individual's principal occupation and business experience for the past five years and the names of other public companies of which he has served as a director during the past five years. We believe that all of our director nominees possess the attributes and characteristics described in "—Board Processes—Director Nomination Process."

Name	Age	Position
Gary L. Crocker(4)	68	Chairman of the Board, President and Treasurer
Eric D. Andersen (2)(3)(4)	42	Director
Noah G. Levy (1)(4)	42	Director
Ulrik B. Nielsen, Ph.D. (1)(2)(3)(5)	48	Director
Russell T. Ray (1)(5)	72	Director

(1) Member of the audit committee.

(2) Member of the corporate governance and nominating committee.

(3) Member of the organization and compensation committee.

(4) Member of the strategy and expense committee.

(5) Member of the 382 exemption committee.

Gary L. Crocker has served as a member of our board of directors since 2004, as Chairman of the Board since 2005 and as President and Treasurer since June 2019. Mr. Crocker also served as our Interim President and Chief Executive Officer from October 2016 to February 2017 and was responsible for the negotiation of the sale of ONIVYDE to Ipsen S.A. Since 2002, Mr. Crocker has served as President and Managing Director of Crocker Ventures, LLC, a privately-held life science investment firm funding differentiated biotechnology and medical device companies. Mr. Crocker has held senior executive positions or served on the board of directors of several life science companies, including as Chairman of the Board of ARUP Laboratories, co-founder and director of Theratech, Inc. (acquired by Actavis plc) and President, Chief Executive Officer and founder of Research Medical, Inc. (acquired by Baxter International). Mr. Crocker also served on the board of the Federal Reserve Branch of San Francisco from 1999 to 2007, and currently serves as the Chairman of the University of Utah's Center for Medical Innovation and on the board of the Sorenson Legacy Foundation. Mr. Crocker holds an M.B.A. from Harvard Business School and a B.S. from Harvard College. We believe that Mr. Crocker is qualified to serve on our board of directors due to his experience in the life sciences industry as an entrepreneur, venture capitalist and executive and his service on the boards of directors of a range of public and private companies and government institutions, as well as his ability to provide us with his expertise in diagnostics and therapeutic development.

Eric D. Andersen has served as a member of our board of directors since September 2019. Mr. Andersen has been a managing member / portfolio manager at Western Standard, LLC, an investment firm, since June 2008. Prior to that, Mr. Andersen served as an analyst at Ivory Capital and JCK Partners, both investment firms, from 2006 to 2008 and 2004 to 2006, respectively; an associate in the private equity group at J.P. Morgan Partners, LLC from 2002 to 2004; and an analyst, mergers and acquisitions, at The Blackstone Group, an investment firm, from 2000 to 2002. Mr. Andersen holds a B.A. from Dartmouth College and is a CFA Charterholder. We believe Mr. Andersen is qualified to serve on our board of directors due to his investment management experience and strong financial and business acumen.

Noah G. Levy has served as a member of our board of directors since September 2019. Mr. Levy has been a managing member and portfolio manager at Newtyn Management, LLC, an investment firm, since June 2011. Prior to that, Mr. Levy served as a senior member at Tyndall Management, an investment firm, from 2002 to 2011, and as an analyst at Goldman Sachs, an investment bank and financial services company, from 2000 to 2002. Mr. Levy holds a B.A. from Dartmouth College. We believe Mr. Levy is qualified to serve on our board of directors due to his investment management experience and strong financial and business acumen.

Ulrik B. Nielsen, Ph.D. has served as a member of our board of directors since January 2015 and is one of our co-founders. Dr. Nielsen led our research and drug discovery in various roles from when he joined us in 2002 to January 2015, including as our Senior Vice President and Chief Scientific Officer from March 2009 until January 2015. Dr. Nielsen has been President and Chief Executive Officer of Tidal Therapeutics, Inc., a biotechnology company, since August 2018. Dr. Nielsen previously served in various capacities at Torque Therapeutics Inc., a biotechnology company, since August 2015 to June 2018, Founder Chairman from November 2017 to June 2018 and Chief Executive Officer from January 2015 to November 2017. Dr. Nielsen also served as Chief Executive Officer of Silver Creek Pharmaceuticals, Inc., a former majority owned subsidiary of ours, from July 2010 to March 2014. Dr. Nielsen also currently serves on the board of directors of Alloy Therapeutics LLC. Dr. Nielsen holds a Ph.D. in molecular biology and an M.S. in biochemistry from the University of Copenhagen. We believe that Dr. Nielsen is qualified to serve on our board of directors due to his extensive knowledge of Merrimack, his leadership and management experience at Merrimack and other biotechnology companies, and his thorough understanding of our business and industry.

Russell T. Ray has served as a member of our board of directors since January 2015. Mr. Ray was a Senior Advisor to HLM Venture Partners, a healthcare venture capital firm, from February 2017 to December 2017 and from January 2014 to December 2015. Mr. Ray was a Partner at HLM Venture Partners from 2003 to 2013. From January 2016 to February 2017, Mr. Ray was a Managing Director and Vice Chairman of Healthcare Investment Banking at Stifel, Nicolaus & Company, Incorporated, an investment banking firm. From 1999 to 2003, Mr. Ray was a Managing Director and Global Co-Head of Healthcare Investment Banking at Credit Suisse First Boston. From 1987 to 1999, Mr. Ray was a Managing Director and Global Co-Head of Healthcare Investment Banking at Deutsche Bank and its predecessor entities, BT Alex. Brown and Alex. Brown & Sons. Mr. Ray served on the board of directors of Allergan, Inc. from 2003 to 2015. Mr. Ray holds an M.B.A. from the Wharton School at the University of Pennsylvania, an M.S. in evolutionary biology from the University of Pennsylvania and B.S. degrees from the United States Military Academy and the University of Washington. We believe that Mr. Ray is qualified to serve on our board of directors due to his knowledge of the healthcare industry, his financial expertise and his management background as an executive in the financial services industry.

Board Composition

Our board of directors is currently authorized to have five members. All of our directors are elected annually for a one year term expiring at the next annual meeting of stockholders. Each director will hold office until his successor has been elected and qualified or until his earlier death, resignation or removal. Our bylaws provide that the authorized number of directors shall be established by our board of directors. Our bylaws also provide that our directors may be removed with or without cause by the affirmative vote of the holders of at least a majority of the votes that all of our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office, and shall not be filled by the stockholders.

Board Determination of Independence

Rule 5605 of the Nasdaq Listing Rules requires a majority of a listed company's board of directors to be comprised of independent directors. In addition, the Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and corporate governance and nominating committees be independent and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Under Rule 5605(a)(2) of the Nasdaq Listing Rules, a director will only qualify as an "independent director" if, in the opinion of our board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries. In addition, in affirmatively determining the independence of any director who will serve on a company's compensation committee, Rule 10C-1 under the Exchange Act requires that a company's board of directors consider all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: (i) the source of compensation of the director, including any consulting, advisory or other compensatory fee paid by such company to the director; and (ii) whether the director is affiliated with the company or any of its subsidiaries or affiliates.

Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our board of directors has determined that none of Mr. Andersen, Mr. Levy, Dr. Nielsen, and Mr. Ray, representing four of our five current directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under Rule 5605(a)(2) of the Nasdaq Listing Rules. Our board of directors had previously made a similar determination of independence with respect to George Demetri, John Dineen and James Quigley, who each served as a director until October 2019, and Mr. Crocker, who was no longer deemed to be independent as of his appointment as President in June 2019. Our board of directors has also determined that Mr. Levy, Dr. Nielsen, and Mr. Ray, who comprise our audit committee, and Mr. Andersen and Dr. Nielsen, who comprise our corporate governance and nominating committee and our organization and compensation committee, each satisfy the independence standards for such committees established by the SEC and the Nasdaq Listing Rules, as applicable. In making such determination, our board of directors considered the relationships that each such non-employee director has with Merrimack, including any transactions of the type described below in "Related Person Transactions," and all other facts and circumstances our board of directors deemed relevant in determining independence.

How Our Board Is Organized

Board Leadership Structure

Our board of directors, upon the recommendation of our corporate governance and nominating committee, has appointed Mr. Crocker, our President and Principal Executive Officer, as Chairman of the Board. Mr. Crocker also serves as our Treasurer and Principal Financial Officer. Our board has reviewed our current board leadership structure in light of the composition of the board, our company's size, the nature of our business and other relevant factors, and has determined that a combined Chairman and Principal Executive Officer position is currently the most appropriate board leadership structure for our company. In reaching its determination, the board noted that, given the specific characteristics and circumstances of our company, a combined Chairman and Principal Executive Officer is in the best position to be aware of major issues facing the company, is in the best position to identify key risks and developments facing the company to be brought to the board's attention and eliminates the potential for confusion and duplication of efforts. We do not have a lead independent director position.

Mr. Crocker's duties as Chairman of the Board include the following:

- chairing meetings of our board and of the independent directors in executive session;
- meeting with any director who is not adequately performing his or her duties as a member of our board or any committee;
- facilitating communications between other members of our board;
- determining the frequency and length of board meetings and recommending when special meetings of our board should be held;
- preparing or approving the agenda for each board meeting; and
- reviewing and, if appropriate, recommending action to be taken with respect to written communications from stockholders submitted to our board.

Board Committees

Our board of directors has established an audit committee, a corporate governance and nominating committee, an organization and compensation committee and a strategy and expense committee, each of which operates under a charter that has been approved by our board. Copies of the committee charters are posted on the Investors section of our website, which is located at investors.merrimack.com. We are not including the information contained on our website as a part of, or incorporating it by reference into, this proxy statement.

Audit Committee

The members of our audit committee are Mr. Levy, Dr. Nielsen and Mr. Ray. Mr. Ray chairs the audit committee. Our audit committee's responsibilities include:

- appointing, approving the compensation of and assessing the independence of our registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of reports and other communications from such firm;
- reviewing and discussing with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing our internal audit function;

- overseeing our risk assessment and risk management policies;
- establishing policies regarding hiring employees from the independent registered public accounting firm and procedures for the receipt and retention of accounting-related complaints and concerns;
- meeting independently with our internal auditors, independent registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by SEC rules.

All audit and non-audit services, other than *de minimis* non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee.

Our board of directors has determined that Mr. Nielsen is an "audit committee financial expert" as defined in applicable SEC rules. We believe that the composition of our audit committee meets the requirements for independence under the current Nasdaq Listing Rules and SEC rules and regulations.

The audit committee met five times during 2019.

Corporate Governance and Nominating Committee

The members of our corporate governance and nominating committee are Mr. Andersen and Dr. Nielsen. Dr. Nielsen chairs the corporate governance and nominating committee. Our corporate governance and nominating committee's responsibilities include:

- identifying individuals qualified to become members of our board;
- recommending to our board the persons to be nominated for election as directors and to each of our board's committees;
- reviewing and making recommendations to our board with respect to our board leadership structure;
- developing and recommending to our board corporate governance principles; and
- overseeing an annual evaluation of our board.

The corporate governance and nominating committee met once during 2019.

Organization and Compensation Committee

The members of our organization and compensation committee are Mr. Andersen and Dr. Nielsen. Mr. Andersen chairs the organization and compensation committee's responsibilities include:

- reviewing and making recommendations to our board with respect to the compensation of our Chief Executive Officer, if any;
- reviewing and approving, or making recommendations to our board with respect to, the compensation of our other executive officers;
- overseeing an evaluation of our executive officers;
- overseeing and administering our cash and equity incentive plans;
- reviewing and making recommendations to our board with respect to director compensation; and
- reviewing and making recommendations to our board with respect to management succession planning.

The processes and procedures followed by our organization and compensation committee in considering and determining executive and director compensation are described below under "—Board Processes—Executive and Director Compensation Processes."

The organization and compensation committee met three times during 2019.

Strategy and Expense Committee

The members of our strategy and expense committee are Mr. Andersen, Mr. Crocker and Mr. Levy. Mr. Levy chairs the strategy and expense committee. Our strategy and expense committee's responsibilities include reviewing, evaluating and, when appropriate, making recommendations to the board with respect to our mission and core strategy, our strategic plan objectives and success criteria and our strategic processes; acquisition and disposition opportunities; and capital structures, security issuances and dividends.

Board Meetings and Attendance

Our board of directors met 28 times during 2019. During 2019, each director attended at least 75% of the aggregate of the number of board meetings and the number of meetings held by all committees of our board on which he then served.

Our directors are encouraged to attend our annual meetings of stockholders. All five of our directors attended our 2019 Annual Meeting of Stockholders.

Board Processes

Oversight of Risk

Our board oversees our risk management processes directly and through its committees. Our management is responsible for risk management on a day-to-day basis. The role of our board and its committees is to oversee the risk management activities of management. They fulfill this duty by discussing with management the policies and practices utilized by management in assessing and managing risks and providing input on those policies and practices. In general, our board oversees risk management activities relating to business strategy, acquisitions, capital allocation, organizational structure and certain operational risks; our audit committee oversees risk management activities related to financial controls, legal and compliance risks and cyber risk; our corporate governance and nominating committee oversees risk management activities relating to board composition; our organization and compensation committee oversees risk management activities relating to board composition; our organization and compensation committee oversees risk management activities relating to board composition; our organization and compensation committee oversees risk management activities relating to board composition; our organization and compensation committee oversees risk management activities relating to board composition; our organization planning; and our strategy and expense committees assists the board's oversight of our business strategy and expenses. Each committee reports to the full board on a regular basis, including reports with respect to the committee's risk oversight activities as appropriate. In addition, since risk issues often overlap, committees from time to time request that that the full board discuss particular risks.

Director Nomination Process

The process followed by our corporate governance and nominating committee to identify and evaluate director candidates may include requests to board members and others for recommendations, evaluation of the performance on our board and its committees of any existing directors being considered for nomination, consideration of biographical information and background material relating to potential candidates and, particularly in the case of potential candidates who are not then serving on our board, interviews of selected candidates by members of the committee and our board.

In considering whether to recommend any particular candidate for inclusion in our board's slate of recommended director nominees, our corporate governance and nominating committee applies the criteria set forth in our corporate governance guidelines. Consistent with these criteria, our corporate governance and nominating committee expects every nominee to have the following attributes or characteristics, among others: integrity, honesty, adherence to high ethical standards, business acumen, good judgment and a commitment to understand our business and industry.

The biographies under "—Board of Directors—Biographies of the Director Nominees" indicate the experience, qualifications, attributes and skills of each nominee that led our corporate governance and nominating committee and our board to conclude that he is qualified to serve as a director of Merrimack. Our corporate governance and nominating committee and our board believe that each of the nominees has the individual attributes and characteristics required of our directors, and that the nominees as a group possess the skill sets and specific experience desired of our board as a whole.

Our corporate governance and nominating committee considers the value of diversity when selecting nominees, and believes that our board, taken as a whole, should embody a diverse set of skills, experiences and backgrounds. The committee does not make any particular weighting of diversity or any other characteristic in evaluating nominees and directors.

Stockholders may recommend individuals for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials, and information with respect to the stockholder or group of stockholders making the recommendation, including the number of shares of common stock owned by such stockholder or group of stockholders, to our Corporate Secretary at Merrimack Pharmaceuticals, Inc., One Broadway, 14th Floor, Cambridge, MA 02142, Attention: Corporate Secretary. The specific requirements for the information that is required to be provided for such recommendations to be considered are specified in our bylaws and must be received by us no later than the date referenced below in "Other Matters—Deadline for Submission of Stockholder Proposals for 2021." Assuming that appropriate biographical and background material has been provided on a timely basis, the corporate governance and nominating committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others.

Executive and Director Compensation Processes

Currently, we do not have any employees and instead use a limited number of consultants for the operation of our company. However, historically, our executive compensation program has been administered by the organization and compensation committee of our board of directors, subject to the oversight and approval of our full board of directors. In that role, our organization and compensation committee reviewed our executive compensation practices on an annual basis and based on this review made recommendations to our board of directors for approval, which had full discretion to approve or modify the recommendations of the organization and compensation committee.

In designing our executive compensation program, our organization and compensation committee considered publicly available compensation data for national and regional companies in the biotechnology/pharmaceutical industry to help guide its executive compensation decisions at the time of hiring and for subsequent adjustments in compensation. The organization and compensation committee is directly responsible for the appointment and oversight of any compensation consultants and other advisors it retains.

Our director compensation program is administered by our board of directors with the assistance of the organization and compensation committee. The organization and compensation committee periodically reviews director compensation and makes recommendations to our board with respect thereto.

Communications with Stockholders

Our management will give appropriate attention to written communications that are submitted by stockholders, and will respond if and as appropriate. Stockholders may communicate with our management by writing to our Corporate Secretary at Merrimack Pharmaceuticals, Inc., One Broadway, 14th Floor, Cambridge, MA 02142, Attention: Corporate Secretary, or by calling (617) 441-1000. Additional information about contacting Merrimack is available on the Investors section of our website, which is located at investors.merrimack.com.

In addition, stockholders who wish to communicate with our entire board may do so by writing to Gary L. Crocker, Chairman of the Board, Merrimack Pharmaceuticals, Inc., One Broadway, 14th Floor, Cambridge, MA 02142. Communications will be forwarded to other directors if they relate to substantive matters that the Chairman of the Board, in consultation with our General Counsel, if any, considers appropriate for attention by the other directors. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances or matters as to which we tend to receive repetitive or duplicative communications.

Corporate Governance Guidelines

Our board of directors has adopted corporate governance guidelines to assist in the exercise of its duties and responsibilities and to serve the best interests of Merrimack and our stockholders. The guidelines provide that:

- our board's principal responsibility is to oversee the management of Merrimack;
- a majority of the members of our board must be independent directors;
- the independent directors meet in executive session at least twice a year;
- directors have full and free access to management and, as necessary, independent advisors;
- new directors participate in an orientation program and all directors are expected to participate in continuing director education on an ongoing basis; and
- our board will conduct an annual self-evaluation to determine whether it and its committees are functioning effectively.

A copy of the corporate governance guidelines is posted on the Investors section of our website, which is located at investors.merrimack.com.

Board Policies

Related Person Transactions

Our board of directors has adopted written policies and procedures for the review of any transaction, arrangement or relationship in which Merrimack is a participant, the amount involved exceeds \$120,000 and one of our executive officers, directors, director nominees or 5% stockholders, or their immediate family members, each of whom we refer to as a "related person," has a direct or indirect material interest.

Since January 1, 2018, we have not engaged in any related person transactions.

Code of Business Conduct and Ethics

Our board of directors has adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A copy of the code of business conduct and ethics is posted on the Investors section of our website, which is located at investors.merrimack.com. In addition, we intend to post on our website all disclosures that are required by law or the Nasdaq Listing Rules concerning any amendments to, or waivers from, any provision of our code of business conduct and ethics.

Cooperation Agreement

On September 18, 2019, the Company entered into a Cooperation Agreement (the "Cooperation Agreement") with Newtyn Management, LLC and its affiliates (collectively, the "Newtyn Parties") and Western Standard, LLC and its affiliates (collectively, the "Western Parties"). The Newtyn Parties and the Western Parties, each as an affiliated group, will collectively be referred to as the "shareholder parties" and individually be referred to as a "shareholder party."

Pursuant to the Cooperation Agreement, the board increased the size of the board by adding two seats and appointed Mr. Levy, as the designee of the Newtyn Parties, and Mr. Andersen, as the designee of the Western Parties, to the board. Messrs. Levy and Andersen are collectively referred to as the "New Directors." Additionally, the Company agreed to, among other things, nominate the New Directors for re-election at the 2019 Annual Meeting of Stockholders along with the Company's three other nominees Mr. Crocker, Dr. Nielsen and Mr. Ray. Each shareholder party will have the right to designate a replacement for the New Director designated by such shareholder party, subject to the approval of the corporate governance and nominating committee, if such shareholder party owns at least 2.5% of the Company's voting securities.

For so long as the shareholder parties collectively own at least 5% of the Company's voting securities, the Company has agreed that the size of the board will not exceed five members unless at least two-thirds of the directors then serving in office, including at least one New Director (or any replacement), approve such increase.

With respect to any meeting of the Company's stockholders held prior to the termination of the Cooperation Agreement, the shareholder parties agreed to, among other things, vote in favor of the Company's director nominees and, subject to certain exceptions, vote in accordance with the board's recommendation on all other proposals.

Each shareholder party also agreed to certain customary standstill provisions prohibiting it from, among other things, (i) making certain public announcements, (ii) soliciting proxies, (iii) acquiring beneficial ownership of more than 20% of the Company's voting securities, (iv) selling any Company securities to any person that is known to have filed or threatened to file a proxy solicitation against the Company within the preceding 18 months or has otherwise given such shareholder party reasonable cause to believe such person intends to engage in a proxy campaign against the Company, (v) taking any action to support proposals that seek to influence the board or management of the Company or effect any material change in the Company's capitalization, management, business or corporate structure, and (vi) joining any group with respect to the Company's voting securities.



Unless the parties agree otherwise, the Cooperation Agreement will terminate as to a shareholder party on the earliest of (a) the time when such shareholder party no longer owns at least 2.5% of the Company's voting securities, (b) the adjournment of the applicable annual meeting if the New Director (or any replacement) designated by such shareholder party is not re-elected at such meeting, (c) the Company's breach of its obligations with respect to the strategy and expense committee, (d) the New Director (or any replacement) designated by such shareholder party fails to be re-nominated for election at a shareholder meeting, and (e) the consummation of an Extraordinary Transaction (as defined in the Cooperation Agreement).

The parties to the Cooperation Agreement have also agreed not to make any disparaging remarks or file any lawsuits against each other, subject to certain exceptions contained in the agreement.

EXECUTIVE COMPENSATION

Executive Officers

Our sole executive officer, his current position and his age as of April 3, 2020 is set forth below and his biography is set forth above in "Corporate Governance—Board of Directors—Biographies of the Director Nominees":

Name	Age	Position(s)
Gary L. Crocker	68	President, Treasurer and Chairman of the Board

Mr. Crocker is not receiving any additional compensation for his service as President and Treasurer of the Company. Mr. Crocker is compensated for his service on the board of directors pursuant to the existing terms of the Company's non-employee director compensation policy, as described below in "Director Compensation Arrangements." Our "named executive officers" for 2019 are Mr. Crocker, Richard Peters, M.D., Ph.D., our former President and Chief Executive Officer, Jean M. Franchi, our former Chief Financial Officer and Treasurer, and Jeffrey A. Munsie, our former General Counsel.

Summary Compensation Table

The following table sets forth the total compensation awarded to, earned by or paid to our named executive officers during 2018 and 2019.

		Salary	Bonus	Option Awards	Non-Equity Incentive Plan Compensation	All Other Compensation	
Name and Principal Position	Year	(\$)	(\$)	(\$)(1)	(\$)(2)	(\$)(3)	Total (\$)
Gary L. Crocker							
Chairman and Principal							
Executive Officer	2019	76,000(4)	—	19,258(5)	—	—	95,258
Richard Peters (6)	2019	383,676	294,891	—		935,369	1,613,936
Former President and Chief							
Executive Officer	2018	722,084	_	1,954,148	610,161	10,042	3,296,435
Jean M. Franchi (7)	2019	214,087	77,544	_		524,461	816,092
Former Chief Financial							
Officer and Treasurer	2018	402,915	—	390,830	162,173	11,240	967,158
Jeffrey A. Munsie (8)	2019	209,658	72,015			478,659	760,332
Former General Counsel							

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- (1) The amounts in the "Option Awards" column reflect the aggregate grant date fair value of stock options granted during the year computed in accordance with the provisions of Accounting Standards Codification ("ASC") 718, excluding the impact of estimated forfeitures related to service-based vesting conditions (which in our case were none). The assumptions that we used to calculate these amounts are discussed in Note 12 to our consolidated financial statements appearing in our Annual Report on Form 10-K for the year ended December 31, 2019.
- (2) The amounts in the "Non-Equity Incentive Plan Compensation" column represent awards to our named executive officers under our annual cash bonus program.
- (3) The amounts in the "All Other Compensation" column represent the value of consulting fees, severance, perquisites and other personal benefits, which are further detailed below for 2019.

Name	401(k) Match (\$)	Group Life and Disability Insurance Premium (\$)	Consulting Fee (\$)	Severance (\$)	Total (\$)
Gary L. Crocker					
Richard Peters	5,360	327	185,936	743,746	935,369
Jean M. Franchi	5,380	327	103,751	415,003	524,461
Jeffrey A. Munsie	5,595	294	94,554	378,216	478,659

(4) Represents amounts received for his service as a director: \$70,000 as a retainer for serving as Chairman of the Board and \$6,000 as a retainer for committee membership.

- (5) Amount reflects the aggregate grant date fair value of a stock option granted for his service as a director.
- (6) Dr. Peters' start date was February 6, 2017. Dr. Peters resigned from Merrimack in June 2019.
- (7) Ms. Franchi's start date was August 21, 2017. Ms. Franchi resigned from Merrimack in June 2019.
- (8) Mr. Munsie resigned from Merrimack in July 2019.

Narrative to Summary Compensation Table

We used base salaries to recognize the experience, skills, knowledge and responsibilities of our named executive officers (other than Mr. Crocker who does not receive additional compensation for his service as President and Treasurer). None of our named executive officers was party to an employment agreement that provided for automatic or scheduled increases in base salary.

For 2019, each named executive officer was eligible to receive an annual performance-based cash bonus ("annual cash bonus") with a target amount equal to a fixed percentage of his or her base salary ("bonus percentage"). Dr. Peters' target annual cash bonus for 2019 was 65% of his 2019 base salary and was based solely on the achievement of our corporate objectives. Ms. Franchi's target annual cash bonus for 2019 was 35% of her 2019 base salary and was based 80% on the achievement of our corporate objectives and 20% on the achievement of specified individual objectives. Mr. Munsie's target annual cash bonus for 2019 was 35% of his 2019 base salary and was based 80% on the achievement of our corporate objectives. Ms. Franchi's target annual cash bonus for 2019 was 35% of his 2019 base salary and was based 80% on the achievement of our corporate objectives. Ms. Franchi's target annual cash bonus for 2019 was 35% of his 2019 base salary and was based 80% on the achievement of our corporate objectives.

Our equity award program was the primary vehicle for offering long-term incentives to our named executive officers. While we did not have any equity ownership guidelines for our named executive officers, we believe that equity grants provided our named executive officers with a strong link to our long-term performance, created an ownership culture and helped to align the interests of our named executive officers and our stockholders. Typically, the stock options we granted to our named executive officers vested quarterly over a three year period. Vesting and exercise rights cease shortly after termination of an employment or consulting relationship, except in the case of death or disability. The exercise price of all stock options granted since the closing of our initial public offering was equal to the fair market value of shares of our common stock on the date of grant, which generally is determined by reference to the closing market price of our common stock on the date of grant.

Outstanding Equity Awards at 2019 Year End

The following table sets forth information regarding outstanding stock options held by our named executive officers as of December 31, 2019.

	Option Awards				
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$/share)	Option Expiration Date	
Gary L. Crocker	2,346	7,036(5)	3.57	10/17/2029	
	10,817	—	7.16	6/12/2028	
	11,662		10.36	9/12/2027	
	17,589		20.94	5/3/2021	
	8,388	_	28.41	8/22/2022	
	10,043		20.42	6/10/2023	
	10,043	_	25.01	5/13/2024	
	4,645	_	44.82	5/13/2025	
	13,142		23.45	6/14/2026	
Richard Peters	185,923	84,521(1)	10.73	6/5/2027	
	157,759	112,685(2)	7.95	2/14/2028	
Jean M. Franchi	45,639	15,209(3)	9.77	8/23/2027	
	35,495	25,353(2)	7.95	2/14/2028	
Jeffrey A. Munsie	23,765	—	20.94	5/3/2021	
	7,960		34.25	2/8/2025	
	2,653		25.67	6/12/2022	
	3,742		28.41	8/22/2022	
	8,628		23.97	3/11/2023	
	9,289	—	18.94	2/10/2024	
	15,928	_	20.50	2/7/2026	
	61,698	12,401(1)	10.73	6/5/2027	
	35,493	25,355(2)	7.95	2/14/2028	
	—	40,568(4)	3.07	12/10/2028	

- (1) The unvested shares under this option are scheduled to vest in approximately equal quarterly installments through February 6, 2021.
- (2) The unvested shares under this option are scheduled to vest in approximately equal quarterly installments through February 15, 2021.
- (3) The unvested shares under this option are scheduled to vest in approximately equal quarterly installments through August 21, 2020.
- (4) The unvested shares under this option are scheduled to vest in approximately equal quarterly installments through December 11, 2021.
- (5) The unvested shares under this option are scheduled to vest in approximately equal quarterly installments through October 16, 2020.

Securities Authorized for Issuance under Equity Compensation Plans

The following table contains information about our equity compensation plans as of December 31, 2019. As of December 31, 2019, we had two equity compensation plans, both of which were approved by our stockholders: our 2008 Stock Incentive Plan, as amended, and our 2011 Stock Incentive Plan.

Equity Compensation Plan Information

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	exer or optic	Number of secur remaining availa for future issual under equity Weighted-average exercise price of outstanding options, warrants and rights (b) Number of secur remaining availa for future issual under equity	
Equity compensation plans approved by security holders	1,924,525	\$	11.93	991,792(1)
Equity compensation plans not approved by security holders	—		—	_
Total	1,924,525	\$	11.93	991,792(1)

(1) Reflects the total number of shares of our common stock available for future issuance under our 2011 Stock Incentive Plan as of December 31, 2019. Our 2011 Stock Incentive Plan contains an "evergreen" provision, which allows for an annual increase in the number of shares of our common stock available for issuance under the plan on the first day of each fiscal year. The annual increase in the number of shares is equal to the lowest of: (i) 450,000 shares of our common stock; (ii) 3.5% of the number of shares of our common stock outstanding on the first day of the fiscal year; and (iii) an amount determined by our board of directors. On January 1, 2020, 450,000 shares of our common stock were added to our 2011 Stock Incentive Plan pursuant to this provision.

Employment Agreements

We are not party to an employment agreement with Mr. Crocker. We were previously a party to employment agreements with Dr. Peters prior to his resignation on June 28, 2019, Ms. Franchi prior to her resignation on June 28, 2019 and Mr. Munsie prior to his resignation on July 12, 2019. The following is a description of the employment agreements that we had with Dr. Peters, Ms. Franchi and Mr. Munsie prior to their resignations. See "Transition, Separation and Release of Claims Agreements" for a discussion of the Transition, Separation and Release of Claims Agreements and Consulting Agreements that we entered into with each of Dr. Peters, Ms. Franchi and Mr. Munsie in connection with their resignations.

The employment agreements, and the non-disclosure, developments, non-competition and non-solicitation agreements that are incorporated therein, prohibit our named executive officers, during the term of employment and for a period of one year thereafter, from competing with us and soliciting or hiring our employees.

Pursuant to the terms of the employment agreements, our named executive officers received the following base salaries, which have been adjusted by our organization and compensation committee and board of directors since our named executive officers originally entered into the employment agreements, and were eligible for the following bonus percentages.

Name	2019 Base Salary (\$)(1)	2019 Bonus Percentage
Richard Peters	743,746	65%
Jean M. Franchi	415,003	35%
Jeffrey Munsie	378,216	35%

(1) Amount reflects adjustment made by our organization and compensation committee and board of directors effective as of January 1, 2019.

Pursuant to the terms of their respective employment agreement, upon execution and effectiveness of a severance agreement and release of claims, each named executive officer was entitled to severance payments if we terminate the named executive officer's employment without cause, as defined in the employment agreement, including our decision not to renew the named executive officer's term of employment, or the named executive officer terminates employment with us for good reason, as defined in the employment agreement.

Transition, Separation and Release of Claims Agreements

Dr. Peters, who resigned on June 28, 2019, Ms. Franchi, who resigned on June 28, 2019, and Mr. Munsie, who resigned on July 12, 2019, each entered into a Transition, Separation and Release of Claims Agreement and a Consulting Agreement with us as described below.

We entered into a Transition, Separation and Release of Claims Agreement (the "Peters Separation Agreement") with Dr. Peters on June 25, 2019. Pursuant to the Peters Separation Agreement, in connection with Dr. Peters' resignation from his positions as President, Chief Executive Officer and a member of our board of directors, we agreed to:

- pay Dr. Peters a lump sum severance amount of \$743,746.21 (an amount equivalent to 12 months of his current base salary);
- pay Dr. Peters a pro-rated bonus of \$294,891.15;
- continue paying the share of the premium for Dr. Peters' health and dental insurance that we currently pay on behalf of Dr. Peters for a period of one year (or until such earlier date as Dr. Peters obtains alternative coverage); and
- in the event that we engage in a change in control transaction with certain parties within one year following Dr. Peters' separation
 date, and provided that as of such date Dr. Peters continues to be engaged by us as a consultant (unless Dr. Peters terminated the
 consulting agreement due to our breach), pay Dr. Peters an amount equal to \$4,035,182, minus any consulting fees and severance pay
 that he received from us prior to such change in control.

The Peters Separation Agreement also includes a release of claims by Dr. Peters against us.

In addition, on June 25, 2019, we entered into a Consulting Agreement (the "Peters Consulting Agreement") with Dr. Peters, pursuant to which Dr. Peters will assist us with our on-going reporting obligations and the administration of our remaining assets. Dr. Peters will be compensated at a rate of \$30,989.43 per month for his services under the Peters Consulting Agreement, which will be paid quarterly. The term of the Peters Consulting Agreement continues until June 29, 2021. Either we or Dr. Peters may terminate the Peters Consulting Agreement for any reason upon 30 days written notice.

We entered into a Transition, Separation and Release of Claims Agreement (the "Franchi Separation Agreement") with Ms. Franchi on June 25, 2019. Pursuant to the Franchi Separation Agreement, in connection with Ms. Franchi's resignation from her positions as Chief Financial Officer and Treasurer, we agreed to:

- pay Ms. Franchi a lump sum severance amount of \$415,002.70 (an amount equivalent to 12 months of her current base salary);
- pay Ms. Franchi a pro-rated bonus of \$77,544.30;
- continue paying the share of the premium for Ms. Franchi's health and dental insurance that we currently pay on behalf of Ms. Franchi for a period of one year (or until such earlier date as Ms. Franchi obtains alternative coverage); and
- in the event that we engage in a change in control transaction with certain parties within one year following Ms. Franchi's separation date, and provided that as of such date Ms. Franchi continues to be engaged by us as a consultant (unless Ms. Franchi terminated the consulting agreement due to our breach), pay Ms. Franchi an amount equal to \$1,719,371, minus any consulting fees and severance pay that she received from us prior to such change in control.

The Franchi Separation Agreement also includes a release of claims by Ms. Franchi against us.

In addition, on June 25, 2019, we entered into a Consulting Agreement (the "Franchi Consulting Agreement") with Ms. Franchi, pursuant to which Ms. Franchi will assist us with our on-going reporting obligations and the administration of our remaining assets. Ms. Franchi will be compensated at a rate of \$17,291.78 per month for her services under the Franchi Consulting Agreement, which will be paid quarterly. The term of the Franchi Consulting Agreement continues until June 29, 2021. Either we or Ms. Franchi may terminate the Franchi Consulting Agreement for any reason upon 30 days written notice.

We entered into a Transition, Separation and Release of Claims Agreement (the "Munsie Separation Agreement") with Mr. Munsie on June 25, 2019. Pursuant to the Munsie Separation Agreement, in connection with Mr. Munsie's resignation from his position as General Counsel, we agreed to:

- pay Mr. Munsie a lump sum severance amount of \$378,216.08 (an amount equivalent to 12 months of his current base salary);
- pay Mr. Munsie a pro-rated bonus of \$72,014.60;
- continue paying the share of the premium for Mr. Munsie's health and dental insurance that we currently pay on behalf of Mr. Munsie for a period of one year (or until such earlier date as Mr. Munsie obtains alternative coverage); and
- in the event that we engage in a change in control transaction with certain parties within one year following Mr. Munsie's separation date, and provided that as of such date Mr. Munsie continues to be engaged by us as a consultant (unless Mr. Munsie terminated the consulting agreement due to our breach), pay Mr. Munsie an amount equal to \$1,543,228, minus any consulting fees and severance pay that he received from us prior to such change in control.

The Munsie Separation Agreement also includes a release of claims by Mr. Munsie against us.

In addition, on June 25, 2019, we entered into a Consulting Agreement (the "Munsie Consulting Agreement") with Mr. Munsie, pursuant to which Mr. Munsie will assist us with our on-going reporting obligations and the administration of our remaining assets. Mr. Munsie will be compensated at a rate of \$15,759 per month for his services under the Munsie Consulting Agreement, which will be paid quarterly. The term of the Munsie Consulting Agreement continues until June 29, 2021. Either we or Mr. Munsie may terminate the Munsie Consulting Agreement for any reason upon 30 days written notice.

401(k) Plan

We maintain a defined contribution employee retirement plan for our employees. Our 401(k) plan is intended to qualify as a tax-qualified plan under Section 401 of the Internal Revenue Code of 1986, as amended, so that contributions to our 401(k) plan, and income earned on such contributions, are not taxable to participants until withdrawn or distributed from the 401(k) plan. Our 401(k) plan provides that each participant may contribute up to 100% of his or her pre-tax compensation, up to a statutory limit, which was \$19,000 for 2019. Participants who are at least 50 years old can also make "catch-up" contributions, which in 2019 was up to an additional \$6,000 above the statutory limit. Under our 401(k) plan, each employee is fully vested in his or her deferred salary contributions. Employee contributions are held and invested by the plan's trustee. Our 401(k) plan also permits us to make discretionary contributions and matching contributions, subject to established limits and a vesting schedule. For 2019, we generally matched 50% of employee contributions up to a maximum contribution by us of 3% of the employee's deferrable income, subject to employer match limitations by the Internal Revenue Service. The match and any earnings thereon generally vest at 25% per year over the first four years of an employee's employment, after which, any match that is contributed is 100% vested.

DIRECTOR COMPENSATION

Compensation for 2019

The following table sets forth information regarding the total compensation awarded to, earned by or paid to each of our non-employee directors during the year ended December 31, 2019 for their service on our board of directors. The compensation amounts presented in the table below are historical and are not indicative of the amounts we may pay our directors in the future. The compensation that we paid to Gary L. Crocker, our Chairman, President and Treasurer, for his service as a director is discussed under "Executive Compensation" above. Mr. Crocker did not receive any compensation for his service as President and Treasurer. Richard Peters, our former President and Chief Executive Officer, did not receive any compensation for his service as a director. The compensation that we paid to Dr. Peters is discussed under "Executive Compensation" above.

Name	Fees Earned or Paid in Cash (\$)(1)	Option Awards (\$)(2)	All Other Compensation (\$)	Total (\$)
Eric D. Andersen(3)		—		—
George D. Demetri(4)	39,375	—	—	39,375
John M. Dineen(5)	45,000	—	—	45,000
Noah G. Levy(3)		—	—	—
Ulrik B. Nielsen	67,625	16,850	_	84,475
James H. Quigley(6)	50,438	—	—	50,438
Russell T. Ray	65,188	16,850	_	82,038

(1) Fees earned or paid in cash consist of:

- for Dr. Demetri, \$33,750 as a retainer for board service and \$5,625 as a retainer for committee membership;
- for Mr. Dineen, \$33,750 as a retainer for board service and \$11,250 as a retainer for committee membership;
- for Dr. Nielsen, \$45,000 as a retainer for board service and \$22,625 as a retainer for committee membership;
- for Mr. Quigley, \$33,750 as a retainer for board service and \$16,688 as a retainer for committee membership; and
- for Mr. Ray, \$45,000 as a retainer for board service and \$20,188 as a retainer for committee membership.
- (2) Amount reflects the aggregate grant date fair value of a stock option granted for service as a director. The grant date fair value was computed in accordance with the provisions of ASC 718 and treated for accounting purposes as employee awards. The assumptions that we used to calculate this amount are discussed in Note 12 to our consolidated financial statements appearing in our Annual Report on Form 10-K for the year ended December 31, 2019.

As of December 31, 2019, the aggregate number of shares of our common stock subject to each non-employee director's outstanding option awards was as follows: Mr. Crocker, 95,711; Dr. Nielsen, 354,660; and Mr. Ray, 44,287. As of December 31, 2019, none of Mr. Andersen, Dr. Demetri, Mr. Dineen, Mr. Levy or Mr. Quigley had outstanding option awards.

- (3) Pursuant to the terms of the Cooperation Agreement, Mr. Andersen and Mr. Levy have agreed to waive and forego any cash or stock compensation (other than expense reimbursement) for their services as directors.
- (4) Dr. Demetri's term expired at our 2019 Annual Meeting of Stockholders. He did not stand for re-election.
- (5) Mr. Dineen's term expired at our 2019 Annual Meeting of Stockholders. He did not stand for re-election.
- (6) Mr. Quigley's term expired at our 2019 Annual Meeting of Stockholders. He did not stand for re-election.

Director Compensation Arrangements

Our non-employee directors were compensated for their services to our board during 2019, and will continue to be compensated for their services to our board during 2020, as follows:

- an annual retainer for board service of \$45,000 (\$70,000 for the Chairman of the Board);
- for members of the audit committee, an additional annual retainer of \$12,000 (\$22,250 for the committee chair);
- for members of the corporate governance and nominating committee, an additional annual retainer of \$5,500 (\$12,000 for the committee chair);
- for members of the organization and compensation committee, an additional annual retainer of \$7,500 (\$15,000 for the committee chair); and
- an annual stock option grant, granted in connection with each annual meeting of stockholders, to purchase 7,000 shares of our common stock (8,000 shares of our common stock for the Chairman of the Board), provided that if a non-employee director is elected to our board in between annual meetings of stockholders, such director will receive a stock option grant in connection with such election for a pro-rated portion of the annual amount.

In addition, we have reimbursed, and will continue to reimburse, our non-employee directors for their travel, lodging and other reasonable expenses incurred in attending meetings of our board and committees of our board.

Pursuant to the terms of the Cooperation Agreement, Mr. Andersen and Mr. Levy have agreed to waive and forego any cash or stock compensation (other than expense reimbursement) for their services as directors.



AUDIT-RELATED MATTERS

Audit Committee Report

The audit committee of the board of directors of Merrimack Pharmaceuticals, Inc. has reviewed Merrimack's audited financial statements for the fiscal year ended December 31, 2019 and discussed them with Merrimack's management and Marcum LLP, Merrimack's independent registered public accounting firm for the fiscal year ended December 31, 2019.

The audit committee has received from, and discussed with, Marcum LLP various communications that Marcum LLP is required to provide to the audit committee, including the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board.

The audit committee has received the written disclosures and the letter from Marcum LLP required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm's communications with the audit committee concerning independence, and has discussed with Merrimack's independent registered public accounting firm its independence.

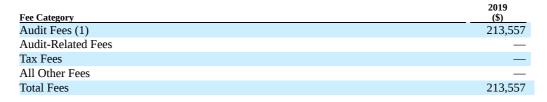
Based on the review and discussions referred to above, the audit committee recommended to Merrimack's board of directors that the audited financial statements referred to above be included in Merrimack's Annual Report on Form 10-K for the year ended December 31, 2019.

By the audit committee of the board of directors of Merrimack Pharmaceuticals, Inc.

Noah G. Levy Ulrik B. Nielsen, Ph.D. Russell T. Ray

Audit Fees and Services

The following table summarizes the fees that Marcum LLP, our independent registered public accounting firm for the fiscal year ended December 31, 2019, billed to us for the fiscal year ended December 31, 2019.



(1) Audit Fees are fees for the audit of our 2019 consolidated financial statements including audits of the effectiveness of our internal control over financial reporting, and reviews of our interim condensed consolidated financial statements.

All such accountant services and fees were pre-approved by our audit committee in accordance with the "Pre-Approval Policies and Procedures" described below.

Marcum LLP did not bill us for any fees for the fiscal year ended December 31, 2019 because they were not engaged until July 24, 2019.

The following table summarizes the fees that PricewaterhouseCoopers LLP ("PwC"), our independent registered public accounting firm for the fiscal year ended December 31, 2018 and for January 1, 2019 to July 17, 2019, billed to us for each of the last two fiscal years.

	2019	2018
Fee Category	(\$)	(\$)
Audit Fees (1)	159,700	603,250
Audit-Related Fees (2)	—	7,000
Tax Fees	—	—
All Other Fees (3)	956	2,700
Total Fees	160,656	612,950

- (1) Audit Fees are fees for the audit of our 2018 consolidated financial statements including audits of the effectiveness of our internal control over financial reporting, reviews of our first and second quarter 2019 interim condensed consolidated financial statements and our 2018 interim consolidated financial statements and reviews of consolidated financial statements incorporated by reference into our outstanding registration statements.
- (2) Audit-Related Fees are fees that principally relate to assurance services that are also provided by our independent registered public accounting firm. In 2018, these fees relate to services performed in connection with the adoption of the new accounting standard on leases.
- (3) All Other Fees for 2019 and 2018 consist of subscriptions to online accounting research tools.

All such accountant services and fees were pre-approved by our audit committee in accordance with the "Pre-Approval Policies and Procedures" described below.

Pre-Approval Policies and Procedures

Our audit committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by our independent registered public accounting firm. This policy generally provides that we will not engage our independent registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by our audit committee or the engagement is entered into pursuant to a *de minimis* exception in accordance with applicable SEC rules.

Change in our Independent Registered Public Accounting Firm

On July 15, 2019, our audit committee dismissed PwC as our independent registered public accounting firm, effective following the filing, on July 17, 2019, of our Quarterly Report on Form 10-Q for the three months ended June 30, 2019.

PwC's reports on our financial statements as of and for the fiscal years ended December 31, 2017 and 2018 did not contain an adverse opinion or a disclaimer of opinion, and were not qualified or modified as to uncertainty, audit scope or accounting principles, except that PwC's report on our financial statements as of and for the fiscal years ended December 31, 2017 and 2018 included an emphasis of matter paragraph indicating that we will require additional financing to fund future operations.

During our fiscal years ended December 31, 2017 and 2018 and the subsequent interim period through July 15, 2019, there were:

- (i) no "disagreements" (within the meaning of Item 304(a) of Regulation S-K) with PwC on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of PwC, would have caused it to make reference to the subject matter of the disagreements in its reports on our consolidated financial statements; and
- (ii) no "reportable events" (as such term is defined in Item 304(a)(1)(v) of Regulation S-K).

We provided PwC with a copy of this disclosure and requested PwC to furnish to us a letter addressed to the SEC stating that it agrees with the statements made above. A copy of PwC's letter dated July 17, 2019 is attached as Exhibit 16.1 to our Current Report on Form 8-K filed with the SEC on July 17, 2019.

In addition, on July 24, 2019, our audit committee engaged Marcum as our independent registered public accounting firm for the fiscal year ending December 31, 2019. We have authorized PwC to respond fully to the inquiries of Marcum.

During our fiscal years ended December 31, 2017 and 2018 and the subsequent interim period through July 24, 2019, neither we nor anyone on our behalf has consulted with Marcum on any matter that:

- (i) involved the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on our financial statements, and neither a written report nor oral advice was provided to us that Marcum concluded was an important factor considered by us in reaching a decision as to any accounting, auditing or financial reporting issue; or
- (ii) was either the subject of a "disagreement" (as such term is defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions to Item 304 of Regulation S-K) or a "reportable event" (as such term is defined in Item 304(a)(1)(v) of Regulation S-K).

MATTERS TO BE VOTED ON

Proposal 1: Election of Directors

At the Annual Meeting, stockholders will vote to elect five directors for a one year term beginning at the Annual Meeting and ending at our 2021 Annual Meeting of Stockholders.

Our board of directors is currently comprised of five members. Our board has nominated Mr. Crocker, Mr. Andersen, Mr. Levy, Dr. Nielsen and Mr. Ray for election as directors, each to hold office until the 2021 Annual Meeting of Stockholders and until their respective successors have been duly elected and qualified or until their earlier death, resignation or removal. Each of the nominees is currently a member of our board.

Unless contrary instructions are provided on the proxy card, the persons named as proxies will, upon receipt of a properly executed proxy, vote for the election of Mr. Crocker, Mr. Andersen, Mr. Levy, Dr. Nielsen and Mr. Ray as directors for a term expiring at the 2021 Annual Meeting of Stockholders. Each of the nominees has consented to serving as nominees for election to the board, to being named in this proxy statement and to serve on our board, if elected. If any nominee should be unable to serve, the person acting under the proxy may vote the proxy for a substitute nominee designated by our board. We do not contemplate that any of the nominees will be unable to serve if elected.

OUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE <u>FOR</u> THE ELECTION OF EACH OF OUR DIRECTOR NOMINEES NAMED ON THE ENCLOSED PROXY CARD, GARY L. CROCKER, ERIC D. ANDERSEN, NOAH G. LEVY, ULRIK B. NIELSEN AND RUSSELL T. RAY.

Proposal 2: Advisory Vote on Executive Compensation

We are providing our stockholders the opportunity to vote to approve, on an advisory, non-binding basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the SEC's rules. This proposal, which is commonly referred to as "say-on-pay," is required by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which added Section 14A to the Exchange Act. Consistent with the preference expressed by our stockholders at our 2015 Annual Meeting of Stockholders, we have determined to hold an advisory vote on executive compensation annually.

Currently, we do not have any employees and instead use a limited number of consultants for the operation of our company. Historically, our executive compensation programs have been designed to attract, motivate and retain our executive officers, and we anticipate any future executive compensation programs would be similarly designed. Under these programs, our named executive officers were rewarded for the achievement of our short-term and longer-term financial and strategic objectives and for driving corporate financial performance and stability. The programs contained elements of cash and equity-based compensation and were designed to align the interests of our executives with those of our stockholders.

The "Executive Compensation" section of this proxy statement describes our executive compensation programs and the decisions made by the organization and compensation committee and our board with respect to the year ended December 31, 2019.

Our board is asking stockholders to approve a non-binding advisory vote on the following resolution:

RESOLVED, that the compensation paid to Merrimack's named executive officers, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, the compensation tables and any related material disclosed in this proxy statement, is hereby approved.

The affirmative vote of the holders of shares of common stock representing a majority of the votes cast on the matter is required to approve the advisory "say-on-pay" vote on the compensation of our named executive officers. As an advisory vote, this proposal is not binding. The outcome of this advisory vote does not overrule any decision by us or our board (or any committee thereof), create or imply any change to the fiduciary duties of us or our board (or any committee thereof), or create or imply any additional fiduciary duties for us or our board (or any committee thereof). However, our organization and compensation committee and our board value the opinions expressed by our stockholders in their vote on this proposal and will consider the outcome of the vote when making future compensation decisions for our named executive officers.

OUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE <u>FOR</u> APPROVAL OF THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS.



Proposal 3: Ratification of Independent Auditors

The audit committee of our board of directors has selected the firm of Marcum as our independent registered public accounting firm for the fiscal year ending December 31, 2020. PricewaterhouseCoopers LLP previously served as our independent registered public accounting firm since the fiscal year ended December 31, 2001, but was dismissed by our audit committee on July 17, 2019. Although stockholder approval of the selection of Marcum is not required by law or Nasdaq Listing Rules, our audit committee believes that it is advisable and has decided to give our stockholders the opportunity to ratify this selection. If this proposal is not approved at the Annual Meeting, our audit committee may reconsider this selection.

Representatives of Marcum are expected to attend the virtual Annual Meeting and will have the opportunity to make a statement if they desire to do so. It is also expected that they will be available to respond to appropriate questions from stockholders.

The affirmative vote of the holders of shares of common stock representing a majority of the votes cast on the matter is required for the ratification of the selection of Marcum as our independent registered public accounting firm for the current fiscal year.

OUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE <u>FOR</u> THE RATIFICATION OF THE SELECTION OF MARCUM AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2020.

Proposal 4: Approval of the Section 382 Plan

You are being asked to approve the adoption by our board of the Section 382 Rights Plan, dated as of December 3, 2019, by and between the Company and Computershare Trust Company, N.A., a federally charted trust company, as rights agent (the "Rights Plan"). Stockholder approval of the Rights Plan is not required by applicable law or by our Restated Certificate of Incorporation, as amended, Amended and Restated Bylaws or other governing documents. Nonetheless, our board has determined to request stockholder approval of the adoption of the Rights Plan as a matter of good corporate governance. In the event stockholder approval is not obtained after final adjournment of the Annual Meeting, the Rights Plan will immediately terminate, any Rights (as defined below) that were previously issued will be cancelled and will no longer be exercisable and the Company will lose any benefits afforded by the Rights Plan, as discussed in more detail below.

A summary of the Rights Plan appears below and is qualified by the full text of the Rights Plan attached as Annex A to this proxy statement.

Background

As of December 31, 2019, the Company had U.S. federal NOLs of approximately \$204.2 million, which begin to expire in 2034, unless previously utilized, and state NOLs of approximately \$289.3 million, which begin to expire in 2033, unless previously utilized. The Company also had federal research and development tax credit carryforwards of \$28.8 million, which begin to expire in 2022, unless previously utilized, and state research and development tax credit carryforwards of \$18.9 million, which begin to expire in 2025, unless previously utilized. As of December 31, 2019, the Company had orphan drug credits of \$122.7 million, which begin to expire in 2031, unless previously utilized. The Company also had available investment tax credit carryforwards (collectively, the "NOLs") have the potential to be a valuable asset. However, because the amount and timing of our future taxable income cannot be accurately predicted, we cannot predict the amount of NOLs that will ultimately be used to reduce the Company's federal income tax liability. Although we are unable to quantify an exact value for the benefits that the NOLs may ultimately provide to the Company, we believe that the NOLs are a potentially valuable asset and the board believes it is in the Company's best interests to attempt to protect this asset by preventing the imposition of limitations on their use. The benefits of the NOLs would be reduced, and our use of the NOLs would be substantially delayed or potentially lost, if we experience an "ownership change," as determined under Section 382 of the Internal Revenue Code, as amended (the "Code"), and applicable Treasury Regulations ("Section 382").

Under Section 382, an "ownership change" occurs if a stockholder or a group of stockholders that is deemed to own at least 5% of our common stock increases their ownership (individually, or collectively with other such "5-percent stockholders") by more than 50 percentage points over their lowest ownership percentage within a rolling three year period. If an "ownership change" occurs, Section 382 would impose an annual limit on the amount of our NOLs that we can use to offset income taxes equal to the product of the total value of our outstanding equity immediately prior to the "ownership change" (reduced by certain items specified in Section 382) and the federal long-term tax-exempt interest rate in effect for the month of the "ownership change". A number of complex rules apply to calculating this annual limit. If an "ownership change" were to occur, the limitations imposed by Section 382 could result in a substantial delay in the timing of the usage of our NOLs or in a material amount of our NOLs expiring unused and, therefore, significantly impair the value of our NOLs. While we periodically monitor our NOLs and currently believe that an "ownership change" that would impair the value of our NOLs has not occurred, the complexity of Section 382's provisions and the limited knowledge any public company has about the ownership of its publicly traded stock make it difficult to determine whether an "ownership change" has in fact occurred.

Prior to adoption of the Rights Plan, the Company's accountants performed an analysis for the relevant period and did not identify any events that, either individually or cumulatively, would result in an "ownership change" for such relevant period. After careful consideration, and after consulting with our tax, financial and legal advisors, on December 3, 2019, our board acted to preserve the potential benefits of our NOLs by adopting the Rights Plan, which is similar to rights plans adopted by other public companies seeking to preserve the potential benefits of their NOLs.

Since adoption of the Rights Plan, the Company's accountants have from time to time reviewed the "ownership change" of the Company and, as of the date of this proxy statement, the Company does not believe it has experienced an "ownership change" within the meaning of Section 382 that would result in any current limitations on the use of the NOLs under Section 382. Therefore, the Company does not believe there are any current limitations on the use of the NOLs under Section 382 as the result of an "ownership change". The Company will continue monitoring any future changes in stock ownership to identify any "ownership change" that might result therefrom.

Description of the Rights Plan

The Rights

In connection with the Rights Plan, the board authorized and declared a dividend distribution of one preferred stock purchase right (a "Right") for each share of common stock of the Company, par value \$0.01 per share (the "Common Shares"), authorized and outstanding on the close of business on December 13, 2019 (the "Record Date") and has authorized the issuance of one Right (subject to adjustment as provided in the Rights Plan) with respect to each Common Share that becomes outstanding between the Record Date and the earlier of the Distribution Date and the Expiration Date (each as defined below). The Rights will be evidenced, with respect to any of the Common Share certificates outstanding as of the Record Date, by such Common Share certificate (unless such Rights are recorded in book entry). Prior to exercise, the Rights do not give their holders any rights as a stockholder of the Company, including any dividend, voting or liquidation rights.

Distribution Date

The Rights are not exercisable until the Distribution Date. The "Distribution Date" is defined as the earlier of (i) the close of business on the 10th day following a public announcement that an Acquiring Person (as defined below) has become such (or, in the event an exchange is effected in accordance with Section 24 of the Rights Plan and the board determines that a later date is advisable, then such later date) or (ii) the close of business on the 10th business day (or such later date as may be determined by action of the board prior to such time as any person becomes an Acquiring Person) following the commencement of a tender offer or exchange offer, the consummation of which would result in any person becoming an Acquiring Person. Until the Distribution Date, the Rights will be transferred with and only with the Common Shares, and (unless the Rights are redeemed or expire) the surrender or transfer of any Common Shares outstanding on or after the Record Date will constitute the transfer of the Rights associated with such Common Shares.

Upon the occurrence of a Distribution Date, the Rights may be transferred separately from the Common Shares, and each Right, other than Rights held by an Acquiring Person, will entitle its holder to purchase from the Company one one-thousandth of a share of Series Z Junior Participating Preferred Stock, par value \$0.01 per share (the "Preferred Shares") in exchange for \$18.00 (the "Purchase Price").

Acquiring Person

An "Acquiring Person" is any person or group of affiliated or associated persons that has acquired Beneficial Ownership (as defined below) of 4.9% or more of the Common Shares then outstanding. However, a person shall not be deemed to be an Acquiring Person if such person, at the time of the first public announcement of the Rights Plan, is a Beneficial Owner of 4.9% or more of the Common Shares then outstanding (a "Grandfathered Stockholder"); provided, however, that if a Grandfathered Stockholder increases its Beneficial Ownership of the Common Shares as of any date on or after the date of the public announcement of the Rights Plan, then such Grandfathered Stockholder shall no longer be deemed to be a Grandfathered Stockholder unless, upon such acquisition of Beneficial Ownership of additional Common Shares, such person is not then the Beneficial Owner of 4.9% or more of the Common Shares then outstanding; provided, further, that upon the first decrease of a Grandfathered Stockholder's Beneficial Ownership below 4.9% of the Common Shares then outstanding, such Grandfathered Stockholder shall no longer be deemed to be a Grandfathered Stockholder.

In general, "Beneficial Ownership" (and derivations of such term thereof) shall include any securities such person, or any of such person's affiliates or associates (i) would be deemed to actually or constructively own for purposes of Section 382 of the Code and the regulations promulgated thereunder, (to the extent ownership of such securities would be attributed to such persons under Section 382 of the Code and the regulations promulgated thereunder), or (ii) which are directly or indirectly beneficially owned by any other person with whom such person has any agreement, arrangement or understanding, whether or not in writing, for the purpose of acquiring, holding, voting or disposing of any securities of the Company or cooperating in obtaining, changing or influencing the control of the Company; provided, that the effect of such agreement, arrangement or understanding is to treat such person as an "entity" under Section 1.382-3(a)(1) of the Department of Treasury regulations.

From and after the time any person becomes an Acquiring Person, if the Rights evidenced by a Right Certificate are or were acquired or Beneficially Owned by an Acquiring Person, an associate or affiliate of an Acquiring Person or any person with whom such person is acting in concert, such Rights shall become void, and any holder of such Rights shall thereafter have no right to exercise such Rights.

Flip-in Event

If any person becomes an Acquiring Person, proper provision shall be made so that each holder of a Rights, other than Rights Beneficially Owned by an Acquiring Person, an associate or affiliate of the Acquiring Person or any person with whom such person is acting in concert (all of which will thereafter be void), will thereafter have the right to receive, upon exercise thereof, that number of Common Shares having a market value equal to two times the Purchase Price of the Right. If the board so elects, the Company shall deliver, upon payment of the Purchase Price, an amount of cash or securities equivalent in value to the number of Common Shares issuable upon exercise of a Right.

Flip-over Event

If, at any time after a person becomes an Acquiring Person, the Company is acquired in a merger or other business combination transaction or 50% or more of its consolidated assets or earning power are sold, proper provision will be made so that each holder of a Right will thereafter have the right to receive, upon the exercise thereof at the then current Purchase Price, that number of shares of common stock of the acquiring company which at the time of such transaction will have a market value of two times the Purchase Price.

Exchange

At any time after any person becomes an Acquiring Person and prior to the acquisition by any person or group of a majority of the outstanding Common Shares, the board may exchange the Rights (other than Rights owned by an Acquiring Person, which shall have become void), in whole or in part, at an exchange ratio of one Common Share of the Company per Right (subject to adjustment). The exchange of the Rights by the board may be made effective at such time, on such basis and with such conditions as the board in its sole discretion may establish.

Preferred Shares

Preferred Shares purchasable upon exercise of the Rights will not be redeemable. Each Preferred Share will be entitled to a quarterly dividend payment of 1,000 multiplied by the dividend declared per Common Share. In the event of liquidation, the holders of the Preferred Shares will be entitled to a payment per share equal to 1,000 multiplied by the aggregate payment made per Common Share. Each Preferred Share will have 1,000 votes, voting together with the Common Shares. In the event of any merger, consolidation or other transaction in which Common Shares are exchanged, each Preferred Share will be entitled to receive 1,000 multiplied by the amount received per Common Share. Because of the nature of the dividend, liquidation and voting rights of the Preferred Shares, the value of the one one-thousandth of a Preferred Share purchasable upon exercise of each Right should approximate the value of one Common Share.

Purchase Price Adjustments

The Purchase Price payable, and the number of Preferred Shares or other securities or property issuable, upon exercise of the Rights is subject to adjustment from time to time to prevent dilution (i) in the event of a stock dividend on the Preferred Shares payable in Preferred Shares or a subdivision or combination of the Preferred Shares, (ii) upon the grant to holders of the Preferred Shares of certain rights or warrants to subscribe for or purchase Preferred Shares at a price, or securities convertible into Preferred Shares of evidences of indebtedness or assets (excluding regular periodic cash dividends paid out of earnings or retained earnings or dividends payable in Preferred Shares) or of subscription rights or warrants (other than those referred to above). The number of outstanding Rights and the number of Preferred Shares issuable upon exercise of each Right are also subject to adjustment in the event of a stock split of the Common Shares or a stock dividend on the Common Shares or subdivisions, consolidations or combinations of the Common Shares occurring, in any such case, prior to the Distribution Date.

With certain exceptions, no adjustment in the Purchase Price will be required until cumulative adjustments require an adjustment of at least 1% in such Purchase Price. No fractional Preferred Shares will be issued (other than fractions which are integral multiples of one one-thousandth of a Preferred Share, which may, at the election of the Company, be evidenced by depositary receipts), and in lieu thereof, an adjustment in cash will be made based on the market price of the Preferred Shares on the last trading day prior to the date of exercise.

Expiration

The Rights will expire on the earlier of (i) the close of business on December 3, 2022, (ii) the close of business on the date that the board determines that (A) the Rights Plan is no longer necessary or desirable for the preservation of the Tax Benefits or (B) the Tax Benefits have been fully utilized and may no longer be carried forward, (iii) the time at which the Rights are redeemed, (iv) the time at which the Rights are exchanged, and (v) if the Rights Plan has not been approved by the stockholders prior to the conclusion of the Annual Meeting, the close of business on such date.

Redemption

At any time prior to the time any person becomes an Acquiring Person, the board may redeem the Rights in whole, but not in part, at a price of \$0.0001 per Right (the "Redemption Price"). The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the board in its sole discretion may establish. Immediately upon any redemption of the Rights, the right to exercise the Rights will terminate and the only right of the holders of Rights will be to receive the Redemption Price.

Amendment

The terms of the Rights may be amended by the board without the consent of the holders of the Rights. However, from and after such time as any person becomes an Acquiring Person, the Rights Plan shall not be amended or supplemented in any manner which would adversely affect the interests of the holders of Rights (other than Rights owned by an Acquiring Person, which shall have become void).

Rights of Holders

Until a Right is exercised, the holder thereof, as such, will have no rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends.

Process to Seek Exemption

Any person who desires to effect any acquisition of securities that would, if consummated, result in such person becoming an Acquiring Person may, prior to such time, request that the board grant an exemption with respect to such acquisition under the Rights Plan so that such person would be deemed exempt under the Rights Plan.

The foregoing description of the terms of the Rights Plan is only a summary and is not complete and should be read together with the entire Rights Plan, which is attached as Annex A to this proxy statement.

Certain Considerations Related to the Rights Plan

The board believes that the Rights Plan may help preserve the Company's ability to use its NOLs to reduce future tax liabilities and that the Rights Plan is in the Company's and the stockholders' best interests. However, the possibility of an "ownership change" cannot be eliminated and the board cannot guarantee that an "ownership change" will not occur - even if the Rights Plan is in place. Please also consider the items discussed below when voting on this Proposal 4.



The IRS could challenge the amount of the Company's NOLs or claim that the Company experienced an "ownership change", which could reduce the amount of NOLs that the Company could use or eliminate the Company's ability to use NOLs altogether.

The Internal Revenue Service (the "IRS") has not audited or otherwise validated the amount of the Company's NOLs. The IRS could challenge the amount of the Company's NOLs, which could limit the Company's ability to use NOLs to reduce future tax liabilities. In addition, the complex provisions of Sections 382 and the limited knowledge that any public company has about the ownership of its publicly traded stock can make it difficult for the Company and its advisors to determine whether an "ownership change" has occurred. Therefore, the board cannot assure you that the IRS will not claim that the Company has experienced an "ownership change" and attempt to reduce or eliminate the benefits associated with the Company's NOLs - even if the Rights Plan is in place.

Congress or the IRS could change Section 382 and/or the regulations promulgated thereunder.

On December 22, 2017, President Trump signed into law the Tax Cuts and Jobs Act of 2017 (the "Tax Act"). The Tax Act, with relevant provisions subsequently amended by the Coronavirus Aid, Relief, and Economic Security (CARES) Act signed into law on March 27, 2020, will affect the Company's ability to use NOLs generated in taxable years beginning after December 31, 2020, to offset the Company's income tax obligations. Other potential future legislation, or the modification or promulgation of treasury regulations by the IRS, could change the provisions of Section 382 and/or other applicable provisions of the Code and treasury regulations in a manner that would limit the Company's ability to utilize its NOLs. Therefore, the board cannot assure you that tax laws and applicable treasury regulations will not change in a manner that could reduce or eliminate the benefits associated with the Company's NOLs - even if the Rights Plan is in place.

The Company still faces a continued risk of an ownership change.

Although the Rights Plan is intended to reduce the likelihood of an "ownership change", the Rights Plan cannot prevent transfers of the Company's stock that could result in an "ownership change". Accordingly, the board cannot guarantee you that the Rights Plan will prevent or even reduce the risk of an "ownership change".

The Rights Plan could impact on the value of the Common Stock.

If investors object to holding the Common Shares subject to the terms of the Rights Plan, they may sell such shares. In such event, sales of the Common Shares by investors could have a negative effect on the trading price of the Common Shares.

Potential Anti-Takeover Effects.

While intended to reduce the risk of an "ownership change", the Rights Plan could have certain anti-takeover effects. The Rights will cause substantial dilution to any person or group that becomes an Acquiring Person. Accordingly, the Rights may render more difficult, or discourage, a merger, tender offer, proxy contest or assumption of control by a holder of the Common Shares or other Company securities. However, because the board can unilaterally redeem the Rights Plan prior to any person becoming an Acquiring Person, the Rights Plan will not interfere with any merger, change in control or other business combination approved by the board.

The board has determined that the Rights Plan is advisable and in the Company's and the stockholders' best interests because the Rights Plan:

- discourages acquisitions of stock that could result in an "ownership change" for federal income tax purposes, as discussed below;
- encourages potential acquirers of Common Stock to negotiate with the board before acquiring significant equity ownership positions in the Company, which may impact the ability of the Company to use its NOLs;
- does not restrict a later sale of the Company on terms that the board determines are in the best interest of the stockholders; and
- has no significant up-front financial, accounting or tax consequences to the Company or the stockholders.



The affirmative vote of the holders of shares of common stock representing a majority of the votes cast on the matter is required for the approval of the adoption of the Section 382 Tax Benefits Preservation Plan.

OUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE <u>FOR</u> THIS PROPOSAL 4 TO APPROVE THE ADOPTION OF THE SECTION 382 TAX BENEFITS PRESERVATION PLAN.

Proposal 5: Stockholder Proposal to Require an Independent Board Chair

A Merrimack stockholder has notified us that it intends to present the following proposal for consideration at the Annual Meeting. The name, address and number of shares held by such stockholder are available upon request to Merrimack's Corporate Secretary.

Proposal 5 - Independent Board Chair:

<u>RESOLVED</u>: Merrimack shareholders hereby request the Board of Directors to amend our company charter and/or bylaws, as necessary, to require the Chair of our Board of Directors, whenever possible, to be a non-management, independent member of the Board. If the Board determines that a Chair who was independent when selected is no longer independent, the Board shall select a new Chair who satisfies the requirements of the policy within a reasonable amount of time. Compliance with this policy is waived so long as no independent director is available and willing to serve as Chair.

SUPPORTING STATEMENT:

The truth of the following three assertions should be self-evident to any intelligent investor:

- 1. A key role of the President/CEO is to manage a company's operations effectively;
- 2. A key role of the Board of Directors is to provide independent oversight of the President/CEO (as well as management generally); and
- 3. There is a conflict of interest for a President/CEO to be her/his own boss and overseer as Board Chair.

Merrimack's current President Gary Crocker also serves as Chair of the Company's Board of Directors. The combination of these two roles in a single person weakens our company's governance structure significantly. As Andrew Grove, Intel's former Board Chair, stated, "The separation of the two jobs goes to the heart of the conception of a corporation. Is a company a sandbox for the CEO, or is the CEO an employee? If he's an employee, he needs a boss, and that boss is the Board. The Chairman runs the Board. How can the CEO be his own boss?" See https://fortune.com/2013/Q3/12/why-the-ceo-chair-split-matters/

Merrimack shareholders are best served by having a non-management, independent Board Chair who can provide a check on the powers of the President/CEO and insure that management is acting in the interests of the shareholders (rather than their own selfish interests, which may diverge from those of the shareholders). The concept of having a "lead director" serving under a combined President/CEO/Board Chair is flawed because in such a scenario a member of management is still in primary control of the Board.

Indeed, Merrimack's own "Corporate Governance Guidelines" on its website states that "*The offices of Chairman of the Board and Chief Executive Officer will be separate offices*". Moreover, Merrimack stated in its 2018 Proxy Statement that "[Merrimack] believes that a bifurcated leadership structure offers [numerous] benefits", including the following:

- increasing the independent oversight of Merrimack and enhancing our board's objective evaluation of the Chief Executive Officer;
- freeing the Chief Executive Officer to focus on company operations instead of board administration;
- providing the Chief Executive Officer with an experienced sounding board;
- providing greater opportunities for communication between stockholders and our board;
- enhancing the independent and objective assessment of risk by our board; and
- providing an independent spokesman for Merrimack.

Fellow Merrimack Shareholders: Please vote for improved corporate governance at our company by VOTING IN FAVOR OF Proposal 5 -Independent Board Chair.



BOARD OF DIRECTORS STATEMENT IN OPPOSITION TO THE STOCKHOLDER PROPOSAL ON INDEPENDENT BOARD CHAIR

Our board of directors unanimously recommends a vote "AGAINST" the stockholder proposal.

Our board of directors has carefully considered the stockholder proposal and, for the reasons described below, believes that implementation of the proposal is unnecessary and not in the best interests of the Company or its stockholders.

Our board leadership structure should be tailored to the Company's circumstances and not limited to the proposal's rigid, "one-size-fits-all" approach

Our board believes that decisions regarding its leadership structure, including whether an independent chairman is appropriate, should be within the board's discretion and based on the unique circumstances facing the Company at any particular time, and should include consideration of the individual qualifications, skills and other attributes that may be required for an effective chairman at that time. This flexibility to select the most appropriate board leadership structure benefits the Company and its stockholders because the board is in the best position to evaluate and determine the optimal leadership structure for the Company given the board's in-depth knowledge of the Company's leadership team, strategic priorities and opportunities over time.

The board believes that it should continue to have the authority to determine, on a case-by-case basis, the most effective leadership structure for the Company, rather than take the stockholder proposal's rigid, "one-size-fits-all" approach to board leadership. We believe that inflexibly mandating these future determinations, as advocated by the proponent, would inadvisably limit board discretion and permanently disqualify current or former executives from serving as chair, potentially depriving the board of the most qualified and appropriate person to lead the board as chair.

We believe that having a single individual serve in the combined role of Chairman and Principal Executive Officer provides certain synergies and efficiencies enhancing the board's oversight of the Company's strategy, and presently is the most appropriate arrangement for the board and the Company. While our board is satisfied that combining the roles of Chairman and Principal Executive Officer best serves our stockholders at this time, it is important to note that, if the board believed a different leadership structure was warranted by the needs of the business, it would make a change.

The proposal ignores the reality of the Company's existing circumstances

The proponent's proposal ignores the reality of the Company's existing circumstances. We are running as leanly as possible to conserve resources and, as such, we are set up to maintain only minimal operations while protecting the Company's milestone and asset transaction payments. We do not have any ongoing research or development activities or employees and instead use external consultants for the operation of our company. Given the specific characteristics and circumstances of our company, a combined Chairman and Principal Executive Officer is in the best position to be aware of major issues facing the Company, is in the best position to identify key risks and developments facing the Company to be brought to the board's attention and eliminates the potential for confusion and duplication of efforts.

The Company's existing corporate governance practices are designed to promote effective and independent board oversight and protect long-term stockholder value

All members of our board, other than our Principal Executive Officer, are independent directors under Nasdaq Listing Rules. All members and chairs of our audit committee, corporate governance and nominating committee and organization and compensation committee are independent directors under Nasdaq Listing Rules. Our independent directors bring a wide variety of backgrounds and experiences that enhance their ability to engage in independent board oversight of management. In addition, all directors are elected annually.

Although our board believes that combining the roles of Chairman and Principal Executive Officer currently is in the best interests of our stockholders, the board retains the ability to modify this leadership structure as it deems appropriate. The limiting effect of this stockholder proposal, which seeks to permanently separate the roles of Chairman and Chief Executive Officer, would unnecessarily restrict the board's range of action and ultimately undermine stockholders' interests.

OUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE AGAINST THE STOCKHOLDER PROPOSAL.



STOCK OWNERSHIP AND REPORTING

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth information with respect to the beneficial ownership of our common stock as of February 29, 2020 by:

- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our current directors and director nominees; and
- all of our executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to options that are currently exercisable or exercisable within 60 days after February 29, 2020 are considered outstanding and beneficially owned by the person holding the options for the purpose of calculating the percentage ownership of that person, but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, to our knowledge, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to community property laws, where applicable. The inclusion herein of any shares as beneficially owned does not constitute an admission of beneficial ownership.

The column entitled "Percentage of Shares Beneficially Owned" is based on a total of 13,380,243 shares of our common stock outstanding as of February 29, 2020. Except as otherwise set forth below, the address of the beneficial owner is c/o Merrimack Pharmaceuticals, Inc., One Broadway, 14th Floor, Cambridge, MA 02142. Beneficial ownership representing less than one percent of our outstanding common stock as of February 29, 2020 is denoted with an "*."

	Number of Shares Beneficially	Percentage of Shares Beneficially
Name and Address of Beneficial Owner	Owned	Owned
5% Stockholders		
Newtyn Management, LLC (1)	1,173,166	8.8
Western Standard, LLC (2)	842,913	6.3
Nantahala Capital Management, LLC (3)	747,635	5.6
JFL Partners Fund LP (4)	701,998	5.3
Dimensional Fund Advisors LP (5)	673,130	5.0
Named Executive Officers and Directors		
Richard Peters (6)	383,124	2.9
Jean M. Franchi (7)	106,485	*
Jeffrey A. Munsie (8)	185,768	1.4
Gary L. Crocker (9)	491,804	3.7
Eric D. Andersen (10)	842,913	6.3
Noah G. Levy (11)	1,173,166	8.8
Ulrik B. Nielsen (12)	346,687	2.6
Russell T. Ray (13)	41,183	*
All executive officers and directors as a group (5 persons) (14)	2,895,753	21.6

- (1) Based on information provided in a Schedule 13D/A filed on September 30, 2019 by Newtyn Management, LLC ("Newtyn Management") with respect to the following reporting persons: Newtyn Management, Noah G. Levy, Newtyn Partners, LP ("NP"), Newtyn Capital Partners, LP ("NCP") and Ledo Capital, LLC ("Ledo"). The address of each of the reporting persons is 60 East 42nd Street, 9th Floor, New York, New York 10165. Newtyn Management is the investment manager to NP and Newtyn TE Partners, LP (the "Funds"). Mr. Levy is the managing member of Newtyn Management and Ledo, and is the portfolio manager to the Funds. NCP is the general partner of the Funds, and Ledo is the general partner of NCP. Newtyn Management reports that it holds sole voting power and sole dispositive power with respect to 1,173,166 shares. Mr. Levy reports that he holds sole voting power and sole dispositive power with respect to 1,173,166 shares. Mr. Levy, a member of our board dispositive power with respect to 677,546 shares. NCP reports that it holds sole voting power and sole dispositive power with respect to 1,173,166 shares. Mr. Levy, a member of our board of directors, disclaims beneficial ownership of all shares held by Newtyn Management, except to the extent of his pecuniary interest therein. Each of Newtyn Management, Mr. Levy, the Funds, NCP, Ledo, Western Standard, LLC, Western Standard Partners, LP, Western Standard Partners QP, LP and Mr. Andersen is a member of a "group" with the other reporting persons for the purposes of Section 13(d)(3) of the Exchange Act, and such group beneficially owns the 2,016,079 shares of common stock owned in the aggregate by all of the reporting persons. See Note 3 below. Each such reporting person disclaims beneficial ownership of the common stock that he or it does not directly own.
- (2) Based on information provided in a Schedule 13D/A filed on September 30, 2019 by Western Standard, LLC ("Western Standard") with respect to the following reporting persons: Western Standard and Eric D. Andersen. The address of each of the reporting persons is 5900 Wilshire Blvd., Suite 650, Los Angeles, California 90036. Western Standard is the general partner and investment manager to Western Standard Partners, LP ("WSP LP") and Western Standard Partners QP, LP ("WSP QP LP" and together with WSP LP, the "WSP Funds"). Mr. Andersen is the managing member of Western Standard and is the portfolio manager to the WSP Funds. Western Standard reports that it holds sole voting power and sole dispositive power with respect to 842,913 shares. Mr. Andersen reports that he holds sole voting power and sole dispositive power with respect to 842,913 shares. Mr. Andersen reports disclaims beneficial ownership of all shares held by Western Standard, except to the extent of his pecuniary interest therein. Each of Newtyn Management, Mr. Levy, the Funds, NCP, Ledo, Western Standard, the WSP Funds and Mr. Andersen is a member of a "group" with the other reporting persons for the purposes of Section 13(d)(3) of the Exchange Act, and such group beneficially owns the 2,016,079 shares of common stock owned in the aggregate by all of the reporting persons. See Note 2 above. Each such reporting person disclaims beneficial ownership of the common stock that he or it does not directly own.
- (3) Based on information provided in a Schedule 13G on February 14, 2020 with respect to Nantahala Capital Management, LLC ("Nantahala"). Nantahala reports that it has shared voting power and shared dispositive power with respect to 747,635 shares of common stock. The address of Nantahala is 130 Main Street, 2nd Floor, New Canaan, CT 06840.
- (4) Based on information provided in a Schedule 13D/A filed on November 19, 2019 on behalf of JFL Partners Fund LP, a Delaware limited partnership ("JFL Partners"), with respect to the common stock directly and beneficially owned by it; JFL Capital Management LP, a Texas limited partnership ("JFL GP"), as the general partner of JFL Partners; JFL Capital Holdings LLC, a Delaware limited liability company ("JFL Holdings"), as the general partner of JFL GP; JFL Capital Management LLC, a Delaware limited liability company ("JFL Capital Management"), as the investment manager of JFL Partners and a certain managed account (the "JFL Account"); and Joseph F. Lawler, M.D., Ph.D., as the Managing Member of each of JFL Holdings and JFL Capital Management. The address of the principal office of each of JFL Partners, JFL GP, JFL Holdings, JFL Capital Management and Dr. Lawler is 2110 Ranch Road 620 S, #341732, Lakeway, Texas 78734. As of November 19, 2019, JFL Partners directly beneficially owned 276,847 shares of common stock. As of November 19, 2019, each of JFL Partners, JFL GP, JFL Holdings and JFL Capital Management had sole voting power and sole dispositive power over 276,847 shares of common stock. JFL GP, as the general partner of JFL Partners, may be deemed to beneficially own the 276,847 shares of common stock owned by JFL Partners. JFL Holdings, as the general partner of JFL GP, may be deemed to beneficially own the 276,847 shares of common stock owned by JFL Partners. As of November 19, 2019, 425,151 shares of common stock were held in the JFL Account. JFL Capital Management, as the investment manager of JFL Partners and the JFL Account, may be deemed to beneficially own the 701,998 shares of common stock owned in the aggregate by JFL Partners and held in the JFL Account. Dr. Lawler, as the Managing Member of JFL Capital Management and JFL Holdings, may be deemed to beneficially own the 701,998 shares owned in the aggregate by JFL Partners and held in the JFL Account. By virtue of their respective positions with JFL Partners, each of JFL GP, JFL Holdings, JFL Capital Management and Dr. Lawler may be deemed to have sole power to vote and dispose of the common stock reported owned by JFL Partners.

- (5) Based on information provided in a Schedule 13G on February 12, 2020 with respect to Dimensional Fund Advisors LP ("Dimensional"). Dimensional reports that it has sole voting power with respect to 648,025 shares of common stock and sole dispositive power with respect to 673,130 shares of common stock. The address of Dimensional is Building One, 6300 Bee Cave Road, Austin, Texas, 78746.
- (6) Consists of 383,124 shares of common stock underlying options that are exercisable as of February 29, 2020 or will become exercisable within 60 days after such date. Dr. Peters did not hold any shares of common stock as of June 28, 2019, his last day of employment with us.
- (7) Consists of 106,485 shares of common stock underlying options that are exercisable as of February 29, 2020 or will become exercisable within 60 days after such date. Ms. Franchi did not hold any shares of common stock as of June 28, 2019, her last day of employment with us.
- (8) Consists of 185,768 shares of common stock underlying options that are exercisable as of February 29, 2020 or will become exercisable within 60 days after such date. Mr. Munsie did not hold any shares of common stock as of July 12, 2019, his last day of employment with us.
- (9) Consists of (i) 22,986 shares of common stock, (ii) 164,296 shares of common stock held by or jointly with Ann Crocker, Mr. Crocker's wife, (iii) 213,501 shares of common stock held by certain members of Mr. Crocker's family, certain trusts established for members of Mr. Crocker's family and certain entities controlled by Mr. Crocker or members of his family and (iv) 91,021 shares of common stock underlying options that are exercisable as of February 29, 2020 or will become exercisable within 60 days after such date. Mr. and Mrs. Crocker, certain members of Mr. Crocker's family and certain entities controlled by Mr. Crocker or members of Mr. Crocker's family and certain entities controlled by Mr. Crocker or members of Mr. Crocker's family and certain entities controlled by Mr. Crocker or members of Mr. Crocker's family and certain entities controlled by Mr. Crocker or members of Mr. Crocker's family and certain entities controlled by Mr. Crocker or members of Mr. Crocker's family are parties to a Shareholder Voting Agreement, dated December 20, 2010 (the "Crocker voting agreement"), pursuant to which the parties to the agreement have agreed to vote his, her or its shares as directed by Crocker Ventures, LLC. Mr. Crocker is the President, Manager and Chairman of Crocker Ventures, LLC and in connection therewith shares voting control over all of the shares subject to the Crocker voting agreement.
- (10) Consists of the shares described in Note 2 above. Mr. Andersen, a member of our board of directors, is the managing member of Western Standard and may be deemed the indirect beneficial owner of such shares. Mr. Andersen disclaims beneficial ownership over such shares, except to the extent of his pecuniary interest therein.
- (11) Consists of the shares described in Note 1 above. Mr. Levy, a member of our board of directors, is the managing member of Newtyn Management and may be deemed the indirect beneficial owner of such shares. Mr. Levy disclaims beneficial ownership over such shares, except to the extent of his pecuniary interest therein.
- (12) Consists of (i) 22,681 shares of common stock and (ii) 324,006 shares of common stock underlying options that are exercisable as of February 29, 2020 or will become exercisable within 60 days after such date.
- (13) Consists of (i) 1,000 shares of common stock and (ii) 40,183 shares of common stock underlying options that are exercisable as of February 29, 2020 or will become exercisable within 60 days after such date.
- (14) Includes 455,210 shares of common stock underlying options that are exercisable as of February 29, 2020 or will become exercisable within 60 days after such date.

OTHER MATTERS

Our board of directors does not know of any other matters that may come before the Annual Meeting. However, if any other matters are properly presented to the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote, or otherwise act, in accordance with their judgment on such matters.

Solicitation of Proxies

This proxy is solicited on behalf of our board of directors. We will bear the expenses connected with this proxy solicitation. We expect to pay banks, brokers and other nominees their reasonable expenses for forwarding proxy materials and annual reports to principals and obtaining their voting instructions. In addition to the use of the mails, our directors and our sole executive officer may, without additional remuneration, solicit proxies in person or by telephone, facsimile, electronic mail, Internet and text messaging.

We have engaged Morrow Sodali, LLC to solicit proxies from stockholders in connection with the 2020 Annual Meeting. We will pay Morrow Sodali, LLC a fee not to exceed \$7,000, plus costs and expenses.

Householding of Annual Meeting Materials

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of our proxy statement or annual report may have been sent to multiple stockholders in the same household. We will promptly deliver a separate copy of either document to any stockholder upon request submitted in writing to us at Merrimack Pharmaceuticals, Inc., One Broadway, 14th Floor, Cambridge, MA 02142, Attention: Corporate Secretary, or by calling (617) 441-1000. Any stockholder who wants to receive separate copies of the annual report and proxy statement in the future, or who is currently receiving multiple copies and would like to receive only one copy for his or her household, should contact his or her bank, broker or other nominee record holder, or contact us at the above address or phone number.

Deadline for Submission of Stockholder Proposals for 2021 Annual Meeting of Stockholders

Proposals of stockholders intended to be presented at our 2021 Annual Meeting of Stockholders pursuant to Rule 14a-8 promulgated under the Exchange Act must be received by us at our principal executive offices, One Broadway, 14th Floor, Cambridge, MA 02142, no later than December [__], 2020 in order to be included in the proxy statement and proxy card relating to that meeting.

If a stockholder wishes to present a proposal at our 2021 Annual Meeting of Stockholders, but does not wish to have the proposal considered for inclusion in our proxy statement and proxy card, pursuant to the advance notice provision in our bylaws, such stockholder must give written notice to our Corporate Secretary at our principal executive offices at the address noted above. Our Corporate Secretary must receive such notice no earlier than January 28, 2021 and no later than February 27, 2021, provided that if the date of the 2021 Annual Meeting of Stockholders is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the Annual Meeting, such notice must instead be received by our Corporate Secretary no earlier than the 120th day prior to the 2021 Annual Meeting of Stockholders and not later than the close of business on the later of (i) the 90th day prior to the 2021 Annual Meeting of Stockholders and not later than the close of the date of the 2021 Annual Meeting of Stockholders was mailed or public disclosure of the date of the 2021 Annual Meeting of Stockholders was made, whichever occurs first.

Annex A

SECTION 382 RIGHTS AGREEMENT

dated as of

December 3, 2019

between

MERRIMACK PHARMACEUTICALS, INC.

and

COMPUTERSHARE TRUST COMPANY, N.A.

as Rights Agent

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SECTION 382 RIGHTS AGREEMENT

This SECTION 382 RIGHTS AGREEMENT (this "**Agreement**"), dated as of December 3, 2019 is between Merrimack Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and Computershare Trust Company, N.A., a federally chartered trust company (the "**Rights Agent**", which term shall include any successor Rights Agent hereunder), as Rights Agent.

WITNESSETH:

WHEREAS, (a) the Company and certain of its Subsidiaries have generated certain Tax Benefits (as hereinafter defined) for United States federal and state income tax purposes, (b) the Company desires to avoid an "ownership change" within the meaning of Section 382 of the Code (as hereinafter defined) and the Treasury Regulations (as hereinafter defined) promulgated thereunder and similar state tax laws, and thereby preserve its ability to utilize such Tax Benefits, and (c) in furtherance of such objective, the Company desires to enter into this Agreement; and

WHEREAS, the Board of Directors of the Company (the "**Board**") has authorized and declared a dividend of one preferred share purchase right (a "**Right**") for each Common Share (as hereinafter defined) of the Company outstanding on the Close of Business on December 13, 2019 (the "**Record Date**") and has authorized the issuance of one Right with respect to each additional Common Share issued by the Company between the Record Date and the earliest of (a) the Close of Business on the Distribution Date, (b) the Redemption Date, (c) the Early Expiration Date (if applicable) and (d) the Final Expiration Date (as such terms are hereinafter defined), and additional Common Shares of the Company that shall become outstanding after the Distribution Date as provided in Section 22 of this Agreement, each Right initially representing the right to purchase one one-thousandth of a Preferred Share (as hereinafter defined), subject to adjustment, upon the terms and subject to the conditions hereof.

NOW THEREFORE, in consideration of the premises and the mutual agreements herein set forth, the parties agree as follows:

Section 1. Definitions. For purposes of this Agreement, the following terms have the meanings indicated:

(a) "Acquiring Person" means any Person (other than an Exempt Person) who or which, together with all Affiliates and Associates of such Person and any Person with whom such Person is Acting in Concert, shall be the Beneficial Owner of 4.9% or more of the Common Shares of the Company then outstanding, but shall not include any Person who or which, at the time of the first public announcement of this Agreement, is a Beneficial Owner of 4.9% or more of the Common Shares of the Company then outstanding (a "Grandfathered Stockholder"); provided, however, that if a Grandfathered Stockholder increases its Beneficial Ownership of the Common Shares of the Company as of any date on or after the date of the public announcement of this Agreement, then such Grandfathered Stockholder shall no longer be deemed to be a Grandfathered Stockholder unless, upon such acquisition of Beneficial Ownership of additional Common Shares of the Company, such Person is not then the Beneficial Owner of 4.9% or more of the Company then outstanding; provided, further, that upon the first decrease of a Grandfathered Stockholder's Beneficial Ownership below 4.9% of the Common

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Shares of the Company then outstanding, such Grandfathered Stockholder shall no longer be deemed to be a Grandfathered Stockholder and this proviso shall have no further force or effect with respect to such Person. For the avoidance of doubt, in the event that after the time of the first public announcement of this Agreement, any agreement, arrangement or understanding pursuant to which any Grandfathered Stockholder is deemed to be the Beneficial Owner of Common Shares of the Company expires, terminates or no longer confers any benefit to or imposes any obligation on the Grandfathered Stockholder, any direct or indirect replacement, extension or substitution of such agreement, arrangement or understanding with respect to the same or different Common Shares of the Company that confers Beneficial Ownership of Common Shares of the Company shall be considered the acquisition of Beneficial Ownership of additional Common Shares of the Company by the Grandfathered Stockholder and render such Grandfathered Stockholder and common Shares of the Company such acquisition of B

Notwithstanding the foregoing, no Person shall become an Acquiring Person as the result of an acquisition of Common Shares by the Company (or any other action of the Company or to which the Company is a party having the effect of reducing the number of shares outstanding) which, by reducing the number of shares outstanding, increases the proportionate number of shares Beneficially Owned by such Person to 4.9% (or such other percentage as would otherwise result in such Person becoming an Acquiring Person) or more of the Common Shares of the Company then outstanding; <u>provided</u>, <u>however</u>, that if a Person would, but for the provisions of this paragraph, become an Acquiring Person by reason of such action and following such action, such Person becomes the Beneficial Owner of any additional Common Shares of the Company such that the Person is or thereby becomes the Beneficial Owner of 4.9% (or such other percentage as would otherwise result in such Person becoming an Acquiring Person) or more of the Common Shares of the Company then outstanding (other than as a result of any action of the Company or to which the Company is a party described in this paragraph), then such Person shall be deemed to be an Acquiring Person.

Notwithstanding the foregoing, if the Board determines in good faith that a Person who would otherwise be an Acquiring Person has become such inadvertently, and such Person divests as promptly as practicable a sufficient number of Common Shares of the Company so that such Person would no longer be an Acquiring Person, then such Person shall not be deemed to have become an Acquiring Person.

Notwithstanding the foregoing, if a bona fide swaps dealer who would otherwise be an "Acquiring Person" has become so as a result of its actions in the ordinary course of its business that the Board determines, in its sole discretion, were taken without the intent or effect of evading or assisting any other Person to evade the purposes and intent of this Agreement, or otherwise seeking to control or influence the management or policies of the Company, then, and unless and until the Board shall otherwise determine, such Person shall not be deemed to be an "Acquiring Person."

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(b) A Person shall be deemed to be "Acting in Concert" with another Person if such Person knowingly acts (whether or not pursuant to an express agreement, arrangement or understanding) in concert or in parallel with such other Person, or towards a common goal with such other Person, relating to (i) acquiring, holding, voting or disposing of voting securities of the Company or (ii) changing or influencing the management, policies or control of the Company or in connection with or as a participant in any transaction having that purpose or effect, where one or more additional factors supports a determination by the Board that such Persons intended to act in concert or in parallel, which such factors may include, without limitation, exchanging information, attending meetings, conducting discussions, or making or soliciting invitations to act in concert or in parallel. A Person who is Acting in Concert with another Person shall also be deemed to be Acting in Concert with any third Person who is also Acting in Concert with such other Person.

(c) "Affiliate" and "Associate" shall have the respective meanings ascribed to such terms in Rule 12b-2 promulgated under the Exchange Act, as in effect on the date of this Agreement.

(d) A Person shall be deemed the "**Beneficial Owner**" of and shall be deemed to "**Beneficially Own**," or have "**Beneficial Ownership**" of, any securities:

(i) which such Person actually owns (directly or indirectly) or would be deemed to actually or constructively own pursuant to Section 382 of the Code and the Treasury Regulations promulgated thereunder (including any coordinated acquisition of securities by any Persons Acting in Concert (to the extent ownership of such securities would be attributed to such Persons under Section 382 of the Code and the Treasury Regulations promulgated thereunder)); or

(ii) which are Beneficially Owned (within the meaning of the preceding clauses of this paragraph (d)), directly or indirectly, by any other Person (or any Affiliate or Associate of such Person) with which such Person (or any of such Person's Affiliates or Associates) is Acting in Concert or has any agreement, arrangement or understanding, whether or not in writing, for the purpose of acquiring, holding, voting or disposing of any securities of the Company or cooperating in obtaining, changing or influencing the control of the Company; <u>provided</u> that the effect of such agreement, arrangement or understanding is to treat such Person as an "entity" under Section 1.382-3(a)(1) of the Treasury Regulations.

Notwithstanding anything in this definition of Beneficial Owner to the contrary, the phrase "then outstanding," when used with reference to a Person's Beneficial Ownership of securities of the Company, means the number of such securities then issued and outstanding together with the number of such securities not then actually issued and outstanding which such Person would be deemed to Beneficially Own hereunder.

Notwithstanding anything in this Agreement to the contrary, to the extent not within the foregoing provisions of this paragraph (d), a Person shall be deemed the "Beneficial Owner" of, and shall be deemed to "beneficially own" or have "beneficial ownership" of, any securities which such Person would be deemed to constructively own or which would be aggregated with shares owned by such Person pursuant to Section 382 of the Code, or any successor provisions or replacement provision and the Treasury Regulations thereunder.

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(e) "Board" has the meaning set forth in the Recitals.

(f) "**Business Day**" means any day other than a Saturday, a Sunday or a day on which banking institutions in the State of New York are authorized or obligated by law or executive order to close.

(g) "**Close of Business**" on any given date means 5:00 p.m., New York time, on such date; <u>provided</u>, <u>however</u>, that if such date is not a Business Day, it means 5:00 p.m., New York time, on the next succeeding Business Day.

(h) "Code" shall mean the Internal Revenue Code of 1986 (or such similar provisions of the Tax Cuts and Jobs Act of 2017), as amended.

(i) "**Common Shares**," when used with reference to the Company, means the shares of Common Stock, par value \$0.01 per share, of the Company. "**Common Shares**," when used with reference to any Person other than the Company, means the capital stock (or equity interest) with the greatest voting power of such other Person or, if such other Person is a Subsidiary of another Person, the Person or Persons which ultimately control such first-mentioned Person.

(j) "Common Stock Equivalents" has the meaning set forth in Section 11(a)(iii).

(k) "**Company**" has the meaning set forth in the Preamble.

(l) "Current Per Share Market Price" has the meaning set forth in Section 11(d)(i).

(m) "Current Value" has the meaning set forth in Section 11(a)(iii).

(n) "Distribution Date" has the meaning set forth in Section 3(a).

(o) "**Early Expiration Date**" means, if Stockholder Approval has not been obtained by the Close of Business on the date on which the Company's 2020 annual meeting of stockholders is concluded (or, if later, the date on which the votes of the stockholders of the Company with respect to such meeting are certified), the Close of Business on such date. For the avoidance of doubt, if Stockholder Approval is obtained then there shall be no Early Expiration Date.

(p) "Equivalent Preferred Shares" has the meaning set forth in Section 11(b).

(q) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(r) "Exchange Ratio" has the meaning set forth in Section 24(a).

(s) "Exempt Person" means any of (i) the Company, (ii) any Subsidiary of the Company, (iii) any employee benefit plan of the Company or of any Subsidiary of the Company, (iv) any entity holding Common Shares for or pursuant to the terms of any such employee benefit plan, and (v) any other Person that the Board determines is exempt from this Agreement, which determination shall be made in the sole and absolute discretion of the Board; provided,

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that such determination is made, and no Person shall qualify as an Exempt Person unless such determination is made, prior to such time as any Person becomes and Acquiring Person; <u>provided</u>, <u>further</u>, that any Person will cease to be an Exempt Person if (A) such Person fails to comply with any limitations or conditions required by the Board in making such determination or (B) if the Board makes a contrary determination with respect to such Person regardless of the reason therefor.

(t) "Exemption Request" has the meaning set forth in Section 36.

(u) "**Final Expiration Date**" means the earlier of (i) the Close of Business on December 3, 2022 or (ii) the Close of Business on the date that the Board determines that (A) this Agreement is no longer necessary or desirable for the preservation of the Tax Benefits or (B) the Tax Benefits have been fully utilized and may no longer be carried forward.

(v) "Grandfathered Stockholder" has the meaning set forth in Section 1(a).

(w) "NASDAQ" means The NASDAQ Global Market.

(x) "**Person**" means any individual, firm, corporation, partnership, limited partnership, limited liability partnership, business trust, limited liability company, unincorporated association or other entity and shall include any successor (by merger or otherwise) of such entity.

(y) "**Preferred Shares**" means shares of Series Z Junior Participating Preferred Stock, par value \$0.01 per share, of the Company having such rights and preferences as are set forth in the form of Certificate of Designation set forth as <u>EXHIBIT A</u> hereto, as the same may be amended from time to time.

(z) "Purchase Price" has the meaning set forth in Section 7(b).

(aa) "Record Date" has the meaning set forth in the Recitals.

(bb) "Redemption Date" has the meaning set forth in Section 23(b).

(cc) "Redemption Price" has the meaning set forth in Section 23(a).

(dd) "Requesting Person" has the meaning set forth in Section 36.

(ee) "Right" has the meaning set forth in the Recitals.

(ff) "Right Certificate" means a certificate evidencing a Right substantially in the form of EXHIBIT B hereto.

(gg) "Rights Agent" has the meaning set forth in the Preamble.

(hh) "Spread" has the meaning set forth in Section 11(a)(iii).

(ii) "**Stock Acquisition Date**" means the date of the first public announcement or public disclosure of facts, in either case, by the Company or an Acquiring Person that an Acquiring Person has become such (which, for purposes of this definition, shall include a statement on Schedule 13D filed pursuant to the Exchange Act).

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(jj) "**Stockholder Approval**" means the approval of this Agreement (or such Agreement as then in effect or as contemplated to be in effect following such Stockholder Approval) by the affirmative vote of the holders of a majority in voting power of the shares present in person or by proxy and entitled to vote thereon at a meeting of stockholders of the Company (including any adjournment or postponement thereof), duly held in accordance with the Company's certificate of incorporation and bylaws (as each may hereafter be amended from time to time) and applicable law, at which a quorum is present.

(kk) "**Subsidiary**" of any Person means any Person of which a majority of the voting power of the voting equity securities or equity interest is owned, directly or indirectly, by such Person.

(II) "Summary of Rights" means the Summary of Rights to Purchase Preferred Shares substantially in the form of EXHIBIT C hereto.

(mm) "**Tax Benefits**" shall mean the net operating loss carryovers, capital loss carryovers, general business credit carryovers, alternative minimum tax credit carryovers and foreign tax credit carryovers, as well as any loss or deduction attributable to a "net unrealized built-in loss" within the meaning of Section 382 of the Code and the Treasury Regulations promulgated thereunder, of the Company or any of its Subsidiaries.

(nn) "**Trading Day**" means a day on which the principal national securities exchange on which a security is listed or admitted to trading is open for the transaction of business or, if a security is not listed or admitted to trading on any national securities exchange, a Business Day.

(oo) "**Treasury Regulations**" shall mean final, temporary and proposed regulations of the Department of Treasury under the Code and any successor regulations, including any amendments thereto.

Section 2. <u>Appointment of Rights Agent</u>. The Company hereby appoints the Rights Agent to act as rights agent for the Company in accordance with the express terms and conditions hereof (and no implied terms or conditions), and the Rights Agent hereby accepts such appointment. The Company may from time to time appoint such co-rights agents as it may deem necessary or desirable, upon ten (10) days' prior written notice to the Rights Agent. The Rights Agent shall have no duty to supervise, and shall in no event be liable for, the acts or omissions of any such co-rights agents. In the event the Company appoints one or more co-rights agents, the respective duties of the Rights Agent and any co-rights Agent shall be as the Company shall reasonably determine, provided that such duties and determination are consistent with the terms and provisions of this Agreement and that contemporaneously with such appointment, if any, the Company shall notify the Rights Agent in writing thereof.

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Section 3. Issue of Right Certificates.

(a) Until the earlier of (i) the Close of Business on the tenth day after the Stock Acquisition Date (or, in the event the Board determines on or before such tenth (10th) day to effect an exchange in accordance with Section 24 and determines in accordance with Section 24(a) that a later date is advisable, such later date) or (ii) the Close of Business on the tenth Business Day (or such later date as may be determined by action of the Board prior to such time as any Person becomes an Acquiring Person) after the date of the commencement by any Person (other than any Exempt Person) of a tender or exchange offer the consummation of which would result in any Person becoming an Acquiring Person (such date described in clause (i) or (ii) of this sentence being herein referred to as the "Distribution Date") (provided, however, that if such tender or exchange offer is terminated prior to the occurrence of a Distribution Date, then no Distribution Date shall occur as a result of such tender or exchange offer), (A) the Rights will be evidenced by the certificates (or other evidence of book-entry or other uncertificated ownership) for Common Shares registered in the names of the holders thereof (which shall also be deemed to be Right Certificates) and not by separate Right Certificates, and (B) the right to receive Right Certificates will be transferable only in connection with the transfer of Common Shares. As soon as practicable after the Distribution Date, the Company will prepare and execute, the Rights Agent will countersign, and the Company will send or cause to be sent (and the Rights Agent will, if requested, at the expense of the Company and upon receipt of all relevant information, send) by first-class, postage-prepaid mail, to each record holder of Common Shares as of the Close of Business on the Distribution Date, at the address of such holder shown on the records of the Company, one or more Right Certificates, evidencing one Right for each Common Share so held, subject to adjustment as provided herein; provided, however, that the Rights may instead be recorded in book-entry or other uncertificated form, in which case such book-entries or other evidence of ownership shall be deemed to be Right Certificates for all purposes of this Agreement; provided, further, that all procedures relating to actions to be taken or information to be provided with respect to such Rights recorded in book-entry or other uncertificated forms, and all requirements with respect to the form of any Right Certificate set forth in this Agreement, may be modified as necessary or appropriate to reflect book-entry or other uncertificated ownership. As of the Distribution Date, the Rights will be evidenced solely by such Right Certificates.

(b) As soon as practicable after the Record Date, the Company will make available a copy of the Summary of Rights to any holder of Rights who may request it prior to the Final Expiration Date. The Company shall provide the Rights Agent with written notice of the occurrence of the Final Expiration Date and the Rights Agent shall not be deemed to have knowledge of the occurrence of the Final Expiration Date, unless and until it shall have received such written notice.

(c) Certificates for Common Shares which become outstanding after the Record Date but prior to the earliest of (i) the Close of Business on the Distribution Date, (ii) the Redemption Date, (iii) the Early Expiration Date (if applicable), and (iv) the Final Expiration Date shall have impressed on, printed on, written on or otherwise affixed to them a legend in substantially the following form:

THIS CERTIFICATE ALSO EVIDENCES AND ENTITLES THE HOLDER HEREOF TO CERTAIN RIGHTS AS SET FORTH IN A SECTION 382 RIGHTS AGREEMENT BETWEEN MERRIMACK PHARMACEUTICALS, INC. AND COMPUTERSHARE TRUST COMPANY, N.A., AS RIGHTS AGENT (OR ANY SUCCESSOR RIGHTS AGENT), DATED AS OF

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DECEMBER 3, 2018, AS IT MAY FROM TIME TO TIME BE AMENDED OR SUPPLEMENTED PURSUANT TO ITS TERMS (THE "SECTION 382 RIGHTS AGREEMENT"), THE TERMS OF WHICH ARE HEREBY INCORPORATED HEREIN BY REFERENCE AND A COPY OF WHICH IS ON FILE AT THE PRINCIPAL EXECUTIVE OFFICES OF MERRIMACK PHARMACEUTICALS, INC. THE RIGHTS ARE NOT EXERCISABLE PRIOR TO THE OCCURRENCE OF CERTAIN EVENTS SPECIFIED IN THE RIGHTS AGREEMENT. UNDER CERTAIN CIRCUMSTANCES, AS SET FORTH IN THE RIGHTS AGREEMENT, SUCH RIGHTS WILL BE EVIDENCED SEPARATELY AND WILL NO LONGER BE EVIDENCED BY THIS CERTIFICATE. MERRIMACK PHARMACEUTICALS, INC. WILL MAIL TO THE HOLDER OF THIS CERTIFICATE A COPY OF THE RIGHTS AGREEMENT WITHOUT CHARGE AFTER RECEIPT OF A WRITTEN REQUEST THEREFOR. UNDER CERTAIN CIRCUMSTANCES, RIGHTS THAT ARE OR WERE ACQUIRED OR BENEFICIALLY OWNED BY ACQUIRING PERSONS (AS DEFINED IN THE SECTION 382 RIGHTS AGREEMENT) MAY BECOME NULL AND VOID.

With respect to such certificates containing the foregoing legend, until the Close of Business on the Distribution Date, the Rights associated with the Common Shares of the Company represented by such certificates shall be evidenced by such certificates alone, and the surrender for transfer of any such certificate shall also constitute the transfer of the Rights associated with the Common Shares of the Company represented thereby. If the Company purchases or acquires any Common Shares after the Record Date but prior to the Close of Business on the Distribution Date, any Rights associated with such Common Shares shall be deemed canceled and retired so that the Company shall not be entitled to exercise any Rights associated with the Common Shares which are no longer outstanding. Notwithstanding this Section 3(c), the omission of a legend shall not affect the enforceability of any part of this Agreement or the rights of any holder of the Rights.

Section 4. <u>Form of Right Certificates</u>. The Right Certificates (and the forms of election to purchase Preferred Shares and of assignment to be printed on the reverse thereof) may have such marks of identification or designation and such legends, summaries or endorsements printed thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Agreement (but which do not affect the rights, duties, liabilities or responsibilities of the Rights Agent), or as may be required to comply with any applicable law or with any rule or regulation made pursuant thereto or with any rule or regulation of any stock exchange on which the Rights may from time to time be listed or the Financial Industry Regulatory Authority, or to conform to usage. Subject to the other provisions of this Agreement, the Right Certificates shall entitle the holders thereof to purchase such number of one one-thousandths of a Preferred Share as shall be set forth therein at the Purchase Price, but the amount and type of securities purchasable upon exercise and the Purchase Price shall be subject to adjustment as provided herein.

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Section 5. <u>Countersignature and Registration</u>. Right Certificates shall be duly executed on behalf of the Company by its Chief Executive Officer, its Chief Financial Officer, any of its Vice Presidents, or any person holding an equivalent position to any of the foregoing, either manually or by facsimile signature, and shall be attested by the Secretary or General Counsel of the Company or such other executive officer of the Company designated by the Secretary or General Counsel of the Company or by facsimile signature. Upon written request by the Company, the Right Certificates shall be countersigned, either manually or by facsimile signature, by an authorized signatory of the Rights Agent, but it shall not be necessary for the same signatory to countersign all of the Right Certificates hereunder. No Right Certificate shall be valid for any purpose unless so countersigned, either manually or by facsimile signature and delivery by the Company, such Right Certificates nevertheless may be countersigned by the Rights Agent and issued and delivered by the Company with the same force and effect as though the Person who signed such Right Certificates had not ceased to be such officer of the Company. Any Right Certificate may be signed on behalf of the Company by any Person who, at the actual date of the execution of such Right Certificate, is a proper officer of the Company to sign such Right Certificate, even if at the date of the execution of this Agreement such Person was not such an officer.

Following the Distribution Date, and receipt by the Rights Agent of written notice to that effect and all other relevant information referred to in this Agreement, the Rights Agent will keep or cause to be kept, at its office or offices designated for such purpose, books for registration of the transfer of the Right Certificates issued hereunder. Such books shall show the names and addresses of the respective holders of the Right Certificates, the number of Rights evidenced on its face by each of the Right Certificates, and the date of each of the Right Certificates.

Section 6. Transfer, Split-up, Combination and Exchange of Right Certificates; Mutilated, Destroyed, Lost or Stolen Right Certificates.

(a) Subject to the provisions of Section 14, at any time after the Close of Business on the Distribution Date, and prior to the earlier of the Redemption Date, the Early Expiration Date (if applicable) and Final Expiration Date, any Right Certificate (other than a Right Certificate representing Rights that have become void pursuant to Section 11(a)(ii) or that have been exchanged pursuant to Section 24) may be transferred, split up, combined or exchanged for another Right Certificate, entitling the registered holder to purchase a like number of Preferred Shares as the Right Certificate surrendered then entitled such holder to purchase. Any registered holder desiring to transfer, split up, combine or exchange any Right Certificate shall make such request in writing delivered to the Rights Agent, and shall surrender (together with any required form of assignment and certificate duly executed and properly completed) the Right Certificate to be transferred, split up, combined or exchanged at the office or offices of the Rights Agent designated for such purpose, accompanied by a signature guarantee and such other documentation as the Rights Agent may reasonably request. Neither the Rights Agent nor the Company shall be obligated to take any action whatsoever with respect to the transfer of any such surrendered Right Certificate until the registered holder shall have provided such additional evidence of the identity of the Beneficial Owner (or former Beneficial Owner) thereof, as the Company or the Rights Agent shall reasonably request. Thereupon, the Rights Agent shall countersign and deliver to the Person

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entitled thereto a Right Certificate or Right Certificates, as the case may be, as so requested. The Company or the Rights Agent may require payment from the holders of the Right Certificates of a sum sufficient for any tax or governmental charge that may be imposed in connection with any transfer, split-up, combination or exchange of Right Certificates. The Rights Agent shall not have any duty or obligation to take any action under any section of this Agreement that requires the payment of taxes and/or charges unless and until it is satisfied that all such payments have been made.

(b) Subject to the provisions of Section 14, upon receipt by the Company and the Rights Agent of evidence reasonably satisfactory to each of them of the loss, theft, destruction or mutilation of a Right Certificate, and, in case of loss, theft or destruction, of indemnity or security satisfactory to them, along with a signature guarantee and such other and further documentation as the Company or the Rights Agent may reasonably request, and reimbursement to the Company and the Rights Agent of all reasonable expenses incidental thereto, and, in the case of mutilation, upon surrender to the Rights Agent and cancellation of the Right Certificate, the Company will execute and deliver a new Right Certificate of like tenor to the Rights Agent for countersignature and delivery to the registered owner in lieu of the Right Certificate so lost, stolen, destroyed or mutilated.

Section 7. Exercise of Rights; Purchase Price; Expiration Date of Rights.

(a) The registered holder of any Right Certificate (other than a holder whose Rights have become void pursuant to Section 11(a)(ii) or have been exchanged pursuant to Section 24) may exercise the Rights evidenced thereby in whole or in part at any time after the Distribution Date upon surrender of the Right Certificate, with the appropriate form of election to purchase on the reverse side thereof properly completed and duly executed, to the Rights Agent at the offices of the Rights Agent designated for such purpose, accompanied by a signature guarantee and such other documentation as the Rights Agent may reasonably request, together with payment of the Purchase Price for each one one-thousandth of a Preferred Share represented by a Right that is exercised and an amount equal to any applicable transfer tax or charges required to be paid pursuant to Section 9, at or prior to the earliest of (i) the Early Expiration Date (if applicable), (ii) the Final Expiration Date, (iii) the Redemption Date, and (iv) the time at which the Rights are exchanged as provided in Section 24 hereof.

(b) The purchase price to be paid upon the exercise of each Right to purchase one one-thousandth of a Preferred Share represented by a Right shall initially be \$18.00 (the "**Purchase Price**") and shall be payable in lawful money of the United States of America in accordance with Section 7(c). Each Right shall initially entitle the holder to acquire one one-thousandth of a Preferred Share upon exercise of the Right. The Purchase Price and the number of Preferred Shares or other securities for which a Right is exercisable shall be subject to adjustment from time to time as provided in Sections 11 and 13.

(c) Upon receipt of a Right Certificate representing exercisable Rights, with the form of election to purchase and certificate properly completed and duly executed, accompanied by payment of the Purchase Price for the number of Rights exercised and an amount equal to any applicable transfer tax required to be paid by the holder of such Right Certificate in accordance with Section 9 by cash, certified check, cashier's check or money order payable to the order of

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the Company, the Rights Agent shall thereupon promptly: (i) (A) requisition from any transfer agent of the Preferred Shares (or from the Company if there shall be no such transfer agent, or make available, if the Rights Agent is the transfer agent) certificates for the number of Preferred Shares to be purchased, and the Company hereby irrevocably authorizes its transfer agent to comply with all such requests, or (B) requisition from any depositary agent for the Preferred Shares depositary receipts representing such number of Preferred Shares as are to be purchased (in which case certificates for the Preferred Shares represented by such receipts shall be deposited by the transfer agent with the depositary agent), and the Company hereby directs any such depositary agent to comply with such request; (ii) when necessary to comply with this Agreement, requisition from the Company the amount of cash to be paid in lieu of issuance of fractional Preferred Shares in accordance with Section 14; (iii) after receipt of such certificates or depositary receipts, cause the same to be delivered to or upon the order of the registered holder of such Right Certificate, registered in such name or names as may be designated in writing by such holder; and (iv) when necessary to comply with this Agreement, after receipt, deliver such cash to or upon the order of the registered holder of such Right Certificate. In the event that the Company is obligated to issue other securities of the Company, pay cash and/or distribute other property pursuant to this Agreement, the Company will make all arrangements necessary so that such other securities, cash and/or other property are available for distribution by the Rights Agent, if and when necessary to comply with this Agreement.

(d) If the registered holder of any Right Certificate shall exercise less than all the Rights evidenced thereby, a new Right Certificate evidencing Rights equivalent to the Rights remaining unexercised shall be issued by the Rights Agent and delivered to the registered holder of such Right Certificate or to such holder's duly authorized assigns, subject to the provisions of Section 14.

(e) Notwithstanding anything in this Agreement or the Right Certificate to the contrary, neither the Rights Agent nor the Company shall be obligated to undertake any action with respect to a registered holder of Rights or other securities of the Company upon the occurrence of any purported transfer or exercise as set forth in this Section 7 unless such registered holder shall have (i) properly completed and duly executed the certificate contained in the appropriate form of election to purchase set forth on the reverse side of the Right Certificate surrendered for such exercise, (ii) tendered the Purchase Price (and an amount equal to any applicable transfer tax required to be paid by the holder of such Right Certificate in accordance with Section 9) to the Company in a manner set forth in Section 7(c), and (iii) provided such additional evidence of the identity of the Beneficial Owner (or former Beneficial Owner) or Affiliates or Associates thereof as the Company and the Rights Agent shall reasonably request.

Section 8. <u>Cancellation and Destruction of Right Certificates</u>. All Right Certificates surrendered for the purpose of exercise, transfer, split-up, combination or exchange shall, if surrendered to the Company or to any of its agents (other than the Rights Agent), be delivered to the Rights Agent for cancellation or in canceled form, or, if surrendered to the Rights Agent, shall be canceled by it, and no Right Certificates shall be issued in lieu thereof except as expressly permitted by any of the provisions of this Agreement. The Company shall deliver to the Rights Agent for cancellation and retirement, and the Rights Agent shall so cancel and retire, any other Right Certificate purchased or acquired by the Company otherwise than upon the exercise thereof. At the expense of the Company, the Rights Agent shall deliver all canceled Right Certificates which have been canceled by the Rights Agent to the Company, or shall, at the written request of the Company, destroy such canceled Right Certificates, and in such case shall deliver a certificate of destruction thereof to the Company.

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Section 9. Status and Availability of Preferred Shares.

(a) The Company covenants and agrees that it will cause to be reserved and kept available, out of its authorized and unissued Preferred Shares or any Preferred Shares held in its treasury, the number of Preferred Shares that will be sufficient to permit the exercise in full of all outstanding Rights in accordance with Section 7.

(b) The Company covenants and agrees that it will take all such action as may be necessary to ensure that all Preferred Shares delivered upon exercise of Rights shall, at the time of delivery of the certificates for such Preferred Shares (subject to payment of the Purchase Price), be duly and validly authorized and issued and fully paid and non-assessable shares.

(c) The Company further covenants and agrees that it will pay when due and payable any and all federal and state transfer taxes and charges which may be payable in respect of the issuance or delivery of the Right Certificates or of any Preferred Shares upon the exercise of Rights. The Company shall not, however, be required to pay any transfer tax which may be payable in respect of any transfer or delivery of Right Certificates to a Person other than, or the issuance or delivery of certificates or depositary receipts for the Preferred Shares in a name other than that of, the registered holder of the Right Certificates or depositary receipts for the Company and the Rights Agent shall not be required to issue or deliver any certificates or depositary receipts for Preferred Shares upon the exercise of any Rights until any such tax or charge shall have been paid (any such tax or charge being payable by the holder of such Right Certificate at the time of surrender) or until it has been established to the Company's and the Rights Agent's reasonable satisfaction that no such tax is due.

Section 10. <u>Preferred Shares Record Date</u>. Each Person in whose name any certificate for Preferred Shares is issued upon the exercise of Rights shall for all purposes be deemed to have become the holder of record of the Preferred Shares represented thereby on, and such certificate shall be dated, the date upon which the Right Certificate evidencing such Rights was duly surrendered and payment of the Purchase Price (and any applicable transfer taxes) was made; <u>provided</u>, <u>however</u>, that, if the date of such surrender and payment is a date upon which the Preferred Shares transfer books of the Company are closed, such Person shall be deemed to have become the record holder of such shares on, and such certificate shall be dated, the next succeeding Business Day on which the Preferred Shares transfer books of the Company are open. Prior to the exercise of the Rights evidenced thereby, the holder of a Right Certificate shall not be entitled to any rights of a holder of Preferred Shares for which the Rights shall be exercisable, including, without limitation, the right to vote, to receive dividends or other distributions, or to exercise any preemptive rights, and shall not be entitled to receive any notice of any proceedings of the Company, except as provided herein.

Section 11. Adjustment of Purchase Price, Number of Shares or Number of Rights.

(a) <u>General</u>.

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(i) In the event the Company shall at any time after the date of this Agreement (A) declare a dividend on the Preferred Shares payable in Preferred Shares, (B) subdivide the outstanding Preferred Shares, (C) combine the outstanding Preferred Shares into a smaller number of Preferred Shares or (D) issue any shares of its capital stock in a reclassification of the Preferred Shares (including any such reclassification in connection with a consolidation or merger in which the Company is the continuing or surviving corporation), except as otherwise provided in this Section 11(a), the Purchase Price in effect at the time of the record date for such dividend or of the effective date of such subdivision, combination or reclassification, and the number and kind of shares of capital stock issuable on such date, shall be proportionately adjusted so that the holder of any Right exercised after such time shall be entitled to receive the aggregate number and kind of shares of capital stock which, if such Right had been exercised immediately prior to such date, the holder would have owned upon such exercise and been entitled to receive by virtue of such dividend, subdivision, combination or reclassification; provided, however, that in no event shall the consideration to be paid upon the exercise of one Right be less than the aggregate par value of the shares of capital stock of the Company issuable upon exercise of one Right.

(ii) Subject to the second paragraph of this Section 11(a)(ii) and to Section 24, from and after the Stock Acquisition Date, each holder of a Right shall have the right to receive, upon exercise thereof at a price equal to the then current Purchase Price multiplied by the number of one one-thousandths of a Preferred Share for which a Right is then exercisable, in accordance with the terms of this Agreement and in lieu of Preferred Shares, such number of Common Shares of the Company as shall equal the result obtained by (A) multiplying the then current Purchase Price by the number of one one-thousandths of a Preferred Share for which a Right is then exercisable and dividing that product by (B) 50% of the then Current Per Share Market Price of the Common Shares of the Company (determined pursuant to Section 11(d) hereof) on the Stock Acquisition Date.

From and after the Stock Acquisition Date, any Rights that are or were acquired or Beneficially Owned by (1) an Acquiring Person (or any Associate or Affiliate of such Acquiring Person or any other Person with whom such Person is Acting in Concert), (2) a transferee of any Acquiring Person (or any Associate or Affiliate of such Acquiring Person or any other Person with whom such Person is Acting in Concert) who becomes such a transferee after the Acquiring Person becomes an Acquiring Person or (3) a transferee of an Acquiring Person (or any Associate or Affiliate of such Acquiring Person or (3) a transferee of an Acquiring Person (or any Associate or Affiliate of such Acquiring Person or (3) a transferee of an Acquiring Person (or any Associate or Affiliate of such Acquiring Person becoming an Acquiring Person and who receives such Rights (I) with actual knowledge that the transferor is or was an Acquiring Person or (II) pursuant to either (x) a transfer (whether or not for consideration) from the Acquiring Person (or any Associate or Affiliate of such Acquiring Person or any other Person with whom such Person is Acting in Concert) or to any Person (or any Associate or Affiliate of such Acquiring Person or any other Person with whom such Person is Acting in Concert) or to any Person (or any Associate or Affiliate of such Acquiring Person or any other Person with whom such Person is Acting in Concert) or to any Person (or any Associate or Affiliate of such Acquiring Person or any other Person with whom such Person is Acting in Concert) or to any Person with whom the Acquiring Person (or any Associate or Affiliate of such Acquiring Person or any other Person with whom such Person is Acting in Concert) has any continuing agreement, arrangement, understanding or relationship (whether or not in writing) regarding the transferred Rights or (y) a transfer which the Board has determined is part of a plan, arrangement or understanding (whether or not in writing) which has as a primary purpose or effect of the avoidance

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Section 11(a)(ii), (each such Person described in (1)-(3) above, an "**Excluded Person**") shall, in each such case, be null and void, and any holder of such Rights (whether or not such holder is an Acquiring Person or an Associate or Affiliate of an Acquiring Person or a Person with whom such Person is Acting in Concert) shall thereafter have no right to exercise such Rights under any provision of this Agreement. No Right Certificates shall be issued pursuant to Sections 3, 6, 7(d) or 11 or otherwise hereof that represents Rights that are or have become null and void pursuant to the provisions of this paragraph and any Right Certificate delivered to the Rights Agent that represents Rights that are or have become null and void pursuant to the provisions of this paragraph shall, upon receipt of written notice directing it to do so, be canceled by the Rights Agent.

(iii) If there are not sufficient authorized but unissued Common Shares to permit the exercise in full of the Rights in accordance with Section 11(a)(ii) or the exchange of the Rights in accordance with Section 24, or should the Board so elect, the Company may with respect to such deficiency, (A) determine the excess (the "**Spread**") of (1) the value of the Common Shares issuable upon the exercise of a Right as provided in Section 11(a)(ii) (the "**Current Value**") over (2) the Purchase Price and (B) with respect to each Right, make adequate provision to substitute for such Common Shares, upon payment of the applicable Purchase Price, any one or more of the following having an aggregate value determined by the Board to be equal to the Current Value: (1) cash; (2) a reduction in the Purchase Price; (3) Common Shares or other equity securities of the Company (including, without limitation, shares, or units of shares, of preferred stock which the Board has determined to have the same value as Common Shares ("**Common Stock Equivalents**")); (4) debt securities of the Company; or (5) other assets, property or instruments. The Company shall provide the Rights Agent with prompt reasonably detailed written notice of any final determination under the previous sentence.

If the Board shall determine in good faith that additional Common Shares should be authorized for issuance upon exercise in full of the Rights, the Company may suspend the exercisability of the Rights in order to seek any authorization of additional shares, decide the appropriate form of distribution to be made and determine the value thereof. If the exercisability of the Rights is suspended pursuant to this Section 11(a)(iii), the Company shall make a public announcement, and shall promptly deliver to the Rights Agent a statement, stating that the exercisability of the Rights has been temporarily suspended. When the suspension is no longer in effect, the Company shall make another public announcement, and promptly deliver to the Rights Agent a statement, so stating. For purposes of this Section 11(a)(iii), the value of the Common Shares shall be the Current Per Share Market Price (as determined pursuant to Section 11(d)(i)) of the Common Shares as of the Stock Acquisition Date, and the value of any Common Stock Equivalent shall be deemed to have the same value as the Common Shares on such date.

(b) If the Company fixes a record date for the issuance of rights, options or warrants to all holders of Preferred Shares entitling them (for a period expiring within forty-five calendar days after such record date) to subscribe for or purchase Preferred Shares (or shares having the same rights, privileges and preferences as the Preferred Shares ("**Equivalent Preferred Shares**")) or securities convertible into Preferred Shares or Equivalent Preferred Shares (or having a conversion price per share, if a security convertible into Preferred Shares or Equivalent Preferred Shares or Equi

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record date, the Purchase Price to be in effect after such record date shall be adjusted by multiplying the Purchase Price in effect immediately prior to such record date by a fraction, (i) the numerator of which shall be (A) the number of Preferred Shares outstanding on such record date *plus* (B) the number of Preferred Shares which the aggregate offering price of the total number of Preferred Shares or Equivalent Preferred Shares to be offered (or the aggregate initial conversion price of the convertible securities to be offered) would purchase at such Current Per Share Market Price and (ii) the denominator of which shall be (A) the number of Preferred Shares outstanding on such record date *plus* (B) the number of additional Preferred Shares or Equivalent Preferred Shares to be offered for subscription or purchase (or into which the convertible securities to be offered are initially convertible); <u>provided</u>, <u>however</u>, that in no event shall the consideration to be paid upon the exercise of one Right be less than the aggregate par value of the Preferred Shares issuable upon exercise of one Right. If such subscription price may be paid in a consideration part or all of which shall be in a form other than cash, the value of such consideration shall be as determined in good faith by the Board, whose determination shall be described in a statement filed with the Rights Agent. Preferred Shares owned by or held for the account of the Company shall not be deemed outstanding for the purpose of any such computation. Such adjustment shall be made successively whenever such a record date is fixed. If such rights, options or warrants are not so issued, the Purchase Price shall be adjusted to be the Purchase Price that would then be in effect if such record date had not been fixed.

(c) If the Company fixes a record date for the making of a distribution to all holders of the Preferred Shares (including any distribution made in connection with a consolidation or merger in which the Company is the continuing or surviving corporation) of evidences of indebtedness or assets (other than a regular quarterly cash dividend or a dividend payable in Preferred Shares) or subscription rights or warrants (excluding those referred to in Section 11(b)), the Purchase Price to be in effect after such record date shall be determined by multiplying the Purchase Price in effect immediately prior to such record date by a fraction, (i) the numerator of which shall be the then Current Per Share Market Price of the Preferred Shares on such record date, less the fair market value (as determined in good faith by the Board) of the portion of the assets or evidences of indebtedness to be distributed or of such subscription rights or warrants applicable to one Preferred Share and (ii) the denominator of which shall be the then Current Per Share Market Price of the Preferred Shares; provided, however, that in no event shall the consideration to be paid upon the exercise of one Right be less than the aggregate par value of the Preferred Shares to be issued upon exercise of one Right. Such adjustments shall be made successively whenever such a record date is fixed. If such distribution is not so made, the Purchase Price shall again be adjusted to be the Purchase Price that would then be in effect if such record date had not been fixed.

(d) Current Per Share Market Price.

(i) For the purpose of any computation hereunder, the "**Current Per Share Market Price**" of any security on any date shall be deemed to be the average of the daily closing prices per share of such security for the thirty (30) consecutive Trading Days immediately prior to such date; <u>provided</u>, <u>however</u>, that if the Current Per Share Market Price of the security is determined during a period (A) following the announcement by the issuer of such security of (1) a dividend or distribution on such security payable in shares of such security or other securities convertible into such shares, or (2) any subdivision, combination or reclassification of

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such security, and (B) prior to the expiration of thirty (30) Trading Days after the ex-dividend date for such dividend or distribution, or the record date for such subdivision, combination or reclassification, then, and in each such case, the Current Per Share Market Price shall be appropriately adjusted to reflect the current market price per share equivalent of such security. The closing price for each day shall be the last sale price or, if no such sale takes place on such day, the average of the closing bid and asked prices, in either case as reported by NASDAQ, or, if on any such date the security is not listed on NASDAQ, the average of the closing bid and asked prices as furnished by a professional market maker making a market in the security selected by the Board. If on any such date no such market maker is making a market in the security, the fair value of the security on such date as determined in good faith by the Board shall be used.

(ii) For the purpose of any computation hereunder, the "**Current Per Share Market Price**" of the Preferred Shares shall be determined in accordance with the method set forth in Section 11(d)(i). If the Preferred Shares are not publicly traded, the "**Current Per Share Market Price**" of the Preferred Shares shall be conclusively deemed to be the Current Per Share Market Price of the Common Shares as determined pursuant to Section 11(d) (i) (appropriately adjusted to reflect any stock split, stock dividend or similar transaction occurring after the date hereof) multiplied by one thousand (1,000). If neither the Common Shares nor the Preferred Shares are publicly held or so listed or traded, "**Current Per Share Market Price**" means the fair value per share as determined in good faith by the Board, whose determination shall be described in a statement filed with the Rights Agent.

(e) No adjustment in the Purchase Price shall be required unless such adjustment would require an increase or decrease of at least one percent (1%) in the Purchase Price; <u>provided</u>, <u>however</u>, that any adjustments which by reason of this Section 11(e) are not required to be made shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Section 11 shall be made to the nearest cent or to the nearest one ten-millionth of a Preferred Share or one ten-thousandth of any other share or security as the case may be. Notwithstanding the first sentence of this Section 11(e), any adjustment required by this Section 11 shall be made no later than three years from the date of the transaction which requires such adjustment.

(f) If, as a result of an adjustment made pursuant to Section 11(a), the holder of any Right thereafter exercised shall become entitled to receive any shares of capital stock of the Company other than Preferred Shares, the number of such other shares so receivable upon exercise of any Right shall thereafter be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Preferred Shares contained in Sections 11(a) through 11(c), inclusive, and the provisions of Sections 7, 9, 10 and 13 with respect to the Preferred Shares shall apply on like terms to any such other shares.

(g) All Rights originally issued by the Company subsequent to any adjustment made to the Purchase Price hereunder shall evidence the right to purchase, at the adjusted Purchase Price, the number of Preferred Shares purchasable from time to time hereunder upon exercise of the Rights, all subject to further adjustment as provided herein.

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(h) Unless the Company exercises its election as provided in Section 11(i), upon each adjustment of the Purchase Price as a result of the calculations made in Sections 11(b) and 11(c), each Right outstanding immediately prior to the making of such adjustment shall thereafter evidence the right to purchase, at the adjusted Purchase Price, that number of one one-thousandth of a Preferred Share (calculated to the nearest one ten-millionth of a Preferred Share) obtained by (i) multiplying the number of one one-thousandth of a Preferred Share covered by a Right immediately prior to this adjustment by the Purchase Price in effect immediately prior to such adjustment of the Purchase Price and (ii) dividing the product by the Purchase Price in effect immediately price.

(i) The Company may elect on or after the date of any adjustment of the Purchase Price to adjust the number of Rights in substitution for any adjustment in the number of Preferred Shares purchasable upon the exercise of a Right. Each of the Rights outstanding after such adjustment of the number of Rights shall be exercisable for the number of Preferred Shares for which a Right was exercisable immediately prior to such adjustment. Each Right held of record prior to such adjustment of the number of Rights shall become that number of Rights (calculated to the nearest one hundredthousandth) obtained by dividing the Purchase Price in effect immediately prior to adjustment of the Purchase Price by the Purchase Price in effect immediately after adjustment of the Purchase Price. The Company shall make a public announcement (with prompt written notice thereof to the Rights Agent) of its election to adjust the number of Rights, indicating the record date for the adjustment and, if known at the time, the amount of the adjustment to be made. The record date may be the date on which the Purchase Price is adjusted or any day thereafter but, if the Right Certificates have been distributed, shall be at least ten (10) days after the date of the public announcement. If Right Certificates have been distributed, upon each adjustment of the number of Rights pursuant to this Section 11(i), the Company shall, as promptly as practicable, cause to be distributed to holders of record of Right Certificates on such record date Right Certificates evidencing, subject to Section 14, the additional Rights to which such holders shall be entitled as a result of such adjustment or, at the option of the Company, shall cause to be distributed to such holders of record in substitution and replacement for the Right Certificates held by such holders prior to the date of adjustment, and upon surrender thereof if required by the Company, new Right Certificates evidencing all the Rights to which such holders shall be entitled after such adjustment. Right Certificates to be so distributed shall be issued, executed and countersigned in the manner provided for herein and shall be registered in the names of the holders of record of Right Certificates on the record date specified in the public announcement.

(j) Irrespective of any adjustment or change in the Purchase Price or the number of Preferred Shares issuable upon the exercise of the Rights, the Right Certificates theretofore and thereafter issued may continue to express the Purchase Price and the number of Preferred Shares which were expressed in the initial Right Certificates issued hereunder.

(k) Before taking any action that would cause an adjustment reducing the Purchase Price below the then par value of the Preferred Shares issuable upon exercise of the Rights, the Company shall take any corporate action which may, in the opinion of its counsel, be necessary in order that the Company may validly and legally issue fully paid and non-assessable Preferred Shares at such adjusted Purchase Price.

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(1) If this Section 11 requires that an adjustment in the Purchase Price be made effective as of a record date for a specified event, the Company may defer, until the occurrence of such event, issuing to the holder of any Right exercised after such record date Preferred Shares and other capital stock or securities of the Company, if any, issuable upon such exercise over and above the Preferred Shares and other capital stock or securities of the Company, if any, issuable upon such exercise over and above the Preferred Shares and other capital stock or securities of the Company, if any, issuable upon such exercise on the basis of the Purchase Price in effect prior to such adjustment; <u>provided</u>, <u>however</u>, that the Company shall deliver to such holder a due bill or other appropriate instrument evidencing such holder's right to receive such additional shares upon the occurrence of the event requiring adjustment.

(m) Anything in this Section 11 to the contrary notwithstanding, the Company shall be entitled to make such reductions in the Purchase Price, in addition to those adjustments expressly required by this Section 11, as and to the extent that it in its sole discretion shall determine to be advisable in order that any (i) combination or subdivision of the Preferred Shares, (ii) issuance wholly for cash of any Preferred Shares at less than the Current Per Share Market Price, (iii) issuance wholly for cash of Preferred Shares or securities which by their terms are convertible into or exchangeable for Preferred Shares, (iv) dividends on Preferred Shares payable in Preferred Shares, or (v) issuance of any rights, options or warrants referred to in Section 11(b) made by the Company after the date of this Agreement to holders of its Preferred Shares shall not be taxable to such stockholders.

(n) If, at any time after the date of this Agreement and prior to the Distribution Date, the Company (i) declares or pays any dividend on the Common Shares payable in Common Shares or (ii) effects a subdivision, combination or consolidation of the Common Shares (by reclassification or otherwise other than by payment of dividends in Common Shares) into a greater or lesser number of Common Shares, then in any such case (A) the number of one one-thousandths of a Preferred Share purchasable after such event upon exercise of each Right shall be determined by multiplying the number of one one-thousandths of a Preferred Share so purchasable immediately prior to such event by a fraction, the numerator of which is the number of Common Shares outstanding immediately before such event and the denominator of which is the number of Common Shares outstanding immediately before such event and the denominator of which is the number of Common Shares outstanding immediately prior to such event shall have issued with respect to it that number of Rights which each Common Share outstanding immediately prior to such event had issued with respect to it. The adjustments provided for in this Section 11(n) shall be made successively whenever such a dividend is declared or paid or such a subdivision, combination or consolidation is affected.

Section 12. <u>Certificate of Adjustment</u>. Whenever an adjustment is made as provided in Sections 11 and 13, the Company shall promptly (a) prepare a certificate setting forth such adjustment and a reasonably detailed statement of the facts, computation, methodology and accounting for such adjustment, (b) promptly file with the Rights Agent and with each transfer agent for the Common Shares or the Preferred Shares a copy of such certificate, and (c) if such adjustment occurs following a Distribution Date, mail a brief summary thereof to each holder of a Right Certificate in accordance with Section 25. The Rights Agent shall be fully protected in relying on any such certificate and on any adjustment or statement therein contained and shall not be obligated or responsible for calculating any adjustment, nor shall the Rights Agent be deemed to have knowledge of such an adjustment or any such event, unless and until it shall have received such certificate.

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Section 13. Consolidation, Merger, Sale or Transfer of Assets or Earning Power.

(a) If, at any time after a Stock Acquisition Date: (i) the Company consolidates with, or merges with and into, any other Person; (ii) any Person consolidates with the Company, or merges with and into the Company, and the Company is the continuing or surviving corporation of such merger and, in connection with such merger, all or part of the Common Shares are or will be changed into or exchanged for stock or other securities of any other Person (or the Company) or cash or any other property; or (iii) the Company sells or otherwise transfers (or one or more of its Subsidiaries sell or otherwise transfer), in one or more transactions, assets or earning power aggregating fifty percent (50%) or more of the assets or earning power of the Company and its Subsidiaries (taken as a whole) to any other Person other than the Company or one or more of its wholly owned Subsidiaries, then proper provision shall be made so that (A) each holder of a Right (except as otherwise provided herein) shall thereafter have the right to receive, upon the exercise thereof at a price equal to the then current Purchase Price multiplied by the number of one one-thousandths of a Preferred Share for which a Right is then exercisable, in accordance with the terms of this Agreement and in lieu of Preferred Shares, such number of Common Shares of such other Person (including the Company as successor thereto or as the surviving corporation) as shall equal the result obtained by (1) multiplying the then current Purchase Price by the number of one one-thousandths of a Preferred Share for which a Right is then exercisable and dividing that product by (2) fifty percent (50%) of the then Current Per Share Market Price of the Common Shares of such other Person (determined pursuant to Section 11(d) hereof) on the date of consummation of such consolidation, merger, sale or transfer, (B) the issuer of such Common Shares shall thereafter be liable for, and shall assume, by virtue of such consolidation, merger, sale or transfer, all the obligations and duties of the Company pursuant to this Agreement, (C) the term "Company" shall thereafter be deemed to refer to such issuer, and (D) such issuer shall take steps (including, but not limited to, the reservation of a sufficient number of shares of its common stock) in connection with such consummation as may be necessary to ensure that the provisions hereof shall thereafter be applicable in relation to the Common Shares thereafter deliverable upon the exercise of the Rights.

(b) The Company shall not enter into any transaction of the kind referred to in this Section 13 if, at the time of such transaction, there are any rights, warrants, instruments or securities outstanding or any agreements or arrangements which, as a result of the consummation of such transaction, would eliminate or substantially diminish the benefits intended to be afforded by the Rights. The provisions of this Section 13 shall apply to successive mergers or consolidations or sales or other transfers.

Section 14. Fractional Rights and Fractional Shares.

(a) The Company shall not be required to issue fractions of Rights or to distribute Right Certificates which evidence fractional Rights. In lieu of such fractional Rights, the Company may instead pay to the registered holders of the Right Certificates with regard to which such fractional Rights would otherwise be issuable an amount in cash equal to the same fraction of the current market value of a whole Right. For the purposes of this Section 14(a), the current market value of a whole Right shall be the closing price of the Rights (as determined pursuant to the second sentence of Section 11(d)(i)) for the Trading Day immediately prior to the date on which such fractional Rights would have been otherwise issuable.

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(b) The Company shall not be required to issue fractions of Preferred Shares (other than fractions which are integral multiples of one one-thousandth of a Preferred Share) upon exercise of the Rights or to distribute certificates which evidence fractional Preferred Shares (other than fractions which are integral multiples of one one-thousandth of a Preferred Share). Fractions of Preferred Shares in integral multiples of one one-thousandth of a Preferred Share may, at the election of the Company, be evidenced by depositary receipts, pursuant to an agreement between the Company and a depositary selected by the Company; <u>provided</u>, that such agreement shall provide that the holders of such depositary receipts shall have all the rights, privileges and preferences to which they are entitled as Beneficial Owners of the Preferred Shares represented by such depositary receipts. In lieu of fractional Preferred Shares that are not integral multiples of one one-thousandth of a Preferred Share, the Company shall pay to each registered holder of Right Certificates at the time such Rights are exercised as herein provided an amount in cash equal to the same fraction of the current market value of one Preferred Share as the fraction of one Preferred Share that such holder would otherwise receive upon the exercise of the aggregate number of rights exercised by such holder. For the purposes of this Section 14(b), the current market value of a Preferred Share shall be the closing price of a Preferred Share (pursuant to Section 11(d)(ii)) for the Trading Day immediately prior to the date of such exercise.

(c) The closing price for any day shall be the last quoted price or, if not so quoted, the average of the high bid and low asked prices as reported by NASDAQ, or if on any such date the Rights or Preferred Shares, as applicable, are not listed on NASDAQ, the average of the closing bid and asked prices as furnished by a professional market maker making a market in the Rights or Preferred Shares, as applicable, selected by the Board. If on any such date no such market maker is making a market in the Rights or Preferred Shares, as applicable, the fair value of the Rights or Preferred Shares, as applicable, on such date as determined in good faith by the Board shall be used.

(d) The holder of a Right by the acceptance of the Right expressly waives any right to receive fractional Rights or fractional shares upon exercise of a Right (except as provided in this Section 14).

(e) Whenever a payment for fractional Rights or fractional shares is to be made by the Rights Agent under any section of this Agreement, the Company shall (i) promptly prepare and deliver to the Rights Agent a certificate setting forth in reasonable detail the facts related to such payments and the prices and formulas utilized in calculating such payments, and (ii) provide sufficient monies to the Rights Agent in the form of fully collected funds to make such payments. The Rights Agent shall be fully protected in relying upon such a certificate. The Rights Agent shall have no duty with respect to, and shall not be deemed to have knowledge of, any payment for fractional Rights or fractional shares under any section of this Agreement relating to the payment of fractional Rights or fractional shares unless and until the Rights Agent shall have received such a certificate and sufficient monies.

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Section 15. <u>Rights of Action</u>. All rights of action in respect of this Agreement, excepting the rights of action given to the Rights Agent under Section 18, are vested in the respective registered holders of the Right Certificates (and, prior to the Distribution Date, the registered holders of the Common Shares). Any registered holder of any Right Certificate (or, prior to the Distribution Date, the registered holders of the Common Shares) may, without the consent of the Rights Agent or of the holder of any other Right Certificate (or, prior to the Distribution Date, the registered holders of the Common Shares), on such holder's own behalf and for such holder's own benefit, enforce, and may institute and maintain any suit, action or proceeding against the Company to enforce, or otherwise act in respect of, such holder's right to exercise the Rights evidenced by such Right Certificate in the manner provided in such Right Certificate and in this Agreement. Without limiting the foregoing or any remedies available to the holders of Rights, it is specifically acknowledged that the holders of Rights would not have an adequate remedy at law for any breach of this Agreement by the Company and will be entitled to specific performance of the obligations under, and injunctive relief against actual or threatened violations of the obligations hereunder of the Company.

Section 16. <u>Agreement of Right Holders</u>. Every holder of a Right, by accepting the same, consents and agrees with the Company and the Rights Agent and with every other holder of a Right that:

(a) prior to the Distribution Date, the Rights will be transferable only in connection with the transfer of the Common Shares;

(b) after the Distribution Date, the Right Certificates are transferable only on the registry books maintained by the Rights Agent if surrendered at the office or offices of the Rights Agent designated for such purpose, duly endorsed or accompanied by a proper instrument of transfer with the appropriate form of certification, properly completed and duly executed, accompanied by a signature guarantee and such other documentation as the Rights Agent may reasonably request;

(c) the Company and the Rights Agent may deem and treat the Person in whose name the Right Certificate (or, prior to the Distribution Date, the associated Common Shares certificate) is registered as the absolute owner thereof and of the Rights evidenced thereby (notwithstanding any notations of ownership or writing on the Right Certificates or the associated Common Shares certificate made by anyone other than the Company or the Rights Agent) for all purposes whatsoever, and neither the Company nor the Rights Agent shall be affected by any notice to the contrary; and

(d) notwithstanding anything in this Agreement to the contrary, neither the Company nor the Rights Agent shall have any liability to any holder of a Right or other Person as a result of the inability of the Company or the Rights Agent to perform any of its or their obligations under this Agreement by reason of any preliminary or permanent injunction or other order, decree, judgment or ruling issued by a court of competent jurisdiction or by a governmental, regulatory or administrative agency or commission, or any statute, rule, regulation or executive order promulgated or enacted by any governmental authority prohibiting or otherwise restraining performance of such obligation.

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Section 17. <u>Right Certificate Holder Not Deemed a Stockholder</u>. No holder, as such, of any Right Certificate shall be entitled to vote or receive dividends, or be deemed for any purpose the holder of the Preferred Shares or any other securities of the Company that may at any time be issuable on the exercise of the Rights represented thereby, nor shall anything contained herein or in any Right Certificate be construed to confer upon the holder of any Right Certificate, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, to give or withhold consent to any corporate action, to receive notice of meetings or other actions affecting stockholders (except as provided in Section 25), or to receive dividends or subscription rights, or otherwise, until the Rights evidenced by such Right Certificate shall have been exercised in accordance with the provisions hereof.

Section 18. <u>Concerning the Rights Agent</u>. The Company agrees to pay to the Rights Agent reasonable compensation for all services rendered by it hereunder accordance with a fee schedule to be mutually agreed upon, and, from time to time, on demand of the Rights Agent, to reimburse the Rights Agent for all of its reasonable expenses and counsel fees and other disbursements incurred in the preparation, delivery, negotiation, administration, execution and amendment, of this Agreement and the exercise and performance of its duties hereunder. The Company also covenants and agrees to indemnify the Rights Agent for, and to hold it harmless against, any and all loss, liability, damage, judgment, fine, penalty, claim, demand, settlement, cost or expense (including, without limitation, the reasonable fees and expenses of legal counsel) that may be paid, incurred or suffered by it, or which it may become subject, without gross negligence, bad faith or willful misconduct on the part of the Rights Agent (which gross negligence, bad faith, or willful misconduct on the part of the Rights Agent (which gross negligence, bad faith, or willful misconduct on the part of the Rights Agent (which gross negligence, bad faith, or willful misconduct on the part of the Rights Agent (which gross negligence, bad faith, or willful misconduct must be determined by a final, non-appealable judgment of a court of competent jurisdiction), for any action taken, suffered or omitted to be taken by the Rights Agent in connection with the execution, acceptance and, administration of, exercise and performance of its duties under this Agreement, including the costs and expenses of defending against any claim or liability arising therefrom or in connection therewith, directly or indirectly. The provisions under this Section 18 and Section 20 below shall survive the expiration of the Rights Agent in enforcing this right of indemnification shall be paid by the Company.

The Rights Agent shall be fully authorized and protected and shall incur no liability for or in respect of any action taken, suffered or omitted by it in connection with its acceptance and administration of this Agreement and the exercise and performance of its duties hereunder, in each case in reliance upon any Right Certificate or certificate for Preferred Shares or for other securities of the Company, instrument of assignment or transfer, power of attorney, endorsement, affidavit, letter, notice, instruction, direction, consent, certificate, statement, or other paper or document believed by it to be genuine and to be signed, executed and, where necessary, verified or acknowledged by the proper Person or Persons, or otherwise upon the advice of counsel as set forth in Section 20. The Rights Agent shall not be deemed to have knowledge of any event of which it was supposed to receive notice thereof hereunder, and the Rights Agent shall be fully protected and shall incur no liability for failing to take action in connection therewith, unless and until it has received such notice in writing.

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Notwithstanding anything in this Agreement to the contrary, in no event will the Rights Agent be liable for special, punitive, indirect, incidental or consequential loss or damage of any kind whatsoever (including but not limited to lost profits), even if the Rights Agent has been advised of the likelihood of such loss or damage and regardless of the form of action.

Section 19. <u>Merger or Consolidation or Change of Name of Rights Agent</u>. Any Person into which the Rights Agent or any successor Rights Agent may be merged or with which it may be consolidated, or any Person resulting from any merger or consolidation to which the Rights Agent or any successor Rights Agent shall be a party, or any Person succeeding to the stock transfer or other shareholder services business of the Rights Agent or any successor Rights Agent, shall be the successor to the Rights Agent under this Agreement without the execution or filing of any paper or any further act on the part of any of the parties hereto; provided that such Person would be eligible for appointment as a successor Rights Agent under the provisions of Section 21. The purchase of all or substantially all of the Rights Agent's assets employed in the performance of transfer agent activities shall be deemed a merger or consolidation for purposes of this Section 19. If, at the time such successor Rights Agent shall succeed to the agency created by this Agreement, any of the Right Certificates shall have been countersigned but not delivered, any such successor Rights Agent may adopt the countersignature of the predecessor Rights Agent and deliver such Right Certificates so countersigned. If, at that time, any of the Right Certificates shall not have been countersigned, any successor Rights Agent. In all such cases such Right Certificates shall have the full force provided in the Right Certificates and in this Agreement.

If, at any time, the name of the Rights Agent changes and any of the Right Certificates have been countersigned but not delivered, the Rights Agent may adopt the countersignature under its prior name and deliver Right Certificates so countersigned. If, at that time, any of the Right Certificates have not been countersigned, the Rights Agent may countersign such Right Certificates either in its prior name or in its changed name. In all such cases such Right Certificates shall have the full force provided in the Right Certificates and in this Agreement.

Section 20. <u>Rights and Duties of Rights Agent</u>. The Rights Agent undertakes to perform only the duties and obligations expressly set forth in this Agreement and no implied duties or obligations shall be read into this Agreement against the Rights Agent. The Rights Agent shall perform its duties and obligations hereunder upon the following terms and conditions, by all of which the Company and the holders of Right Certificates, by their acceptance thereof, shall be bound:

(a) The Rights Agent may consult with legal counsel (who may be legal counsel for the Company or an employee or legal counsel of the Rights Agent), and the advice or opinion of such counsel shall be full and complete authorization and protection to the Rights Agent and the Rights Agent shall incur no liability for or in respect of as to any action taken or omitted by it in the absence of bad faith and in accordance with such advice or opinion.

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(b) Whenever in the performance of its duties under this Agreement the Rights Agent shall deem it necessary or desirable that any fact or matter be proved or established by the Company prior to taking, suffering or omitting to take any action hereunder, such fact or matter (unless other evidence in respect thereof is specifically prescribed herein) may be deemed to be conclusively proved and established by a certificate signed by a person reasonably believed by the Rights Agent to be any one of the Chief Executive Officer, the Chief Financial Officer, the General Counsel, any Vice President or the Secretary of the Company and delivered to the Rights Agent, and such certificate shall be full authorization to the Rights Agent and the Rights Agent shall incur no liability for or in respect of any action taken, suffered or omitted to be taken by it under the provisions of this Agreement in reliance upon such certificate. The Rights Agent shall have no duty to act without such a certificate as set forth in this Section 20(b) and will not be liable for any delay related thereto.

(c) The Rights Agent shall be liable only for its own gross negligence, bad faith or willful misconduct (which gross negligence, bad faith or willful misconduct must be determined by a final, non-appealable judgment of a court of competent jurisdiction) in connection with its acceptance and administration of this Agreement and the exercise and performance of its duties hereunder. Notwithstanding anything in this Agreement to the contrary, any liability of the Rights Agent under this Agreement will be limited to the amount of annual fees paid by the Company to the Rights Agent during the twelve (12) months immediately preceding the event for which recovery from the Rights Agent is being sought.

(d) The Rights Agent shall not be liable for or by reason of any of the statements of fact or recitals contained in this Agreement or in the Right Certificates (except as to its countersignature thereof) or be required to verify the same. All such statements and recitals are and shall be deemed to have been made by the Company only.

(e) The Rights Agent shall not have any liability for or be under any responsibility in respect of the validity of this Agreement or the execution and delivery hereof (except the due execution hereof by the Rights Agent) or in respect of the legality or validity or execution of any Right Certificate (except its countersignature thereof); nor shall it be responsible for any determination by the Board with respect to the Rights or breach by the Company of any covenant or failure by the Company to satisfy any condition contained in this Agreement or in any Right Certificate; nor shall it be liable or responsible for any modification by or order of any court, tribunal or governmental authority in connection with the foregoing, any change in the exercisability of the Rights or any adjustment required under the provisions of Sections 11 or 13 or for the manner, method or amount of any such adjustment or other calculation required hereunder or the ascertaining of the existence of facts that would require any such adjustment or calculation (except with respect to the exercise of Rights evidenced by Right Certificates after receipt of a certificate furnished pursuant to Section 12 describing such adjustment); nor shall it by any act hereunder be deemed to make any representation or warranty as to the authorization or reservation of any shares of Preferred Shares to be issued pursuant to this Agreement or any Right Certificate or as to whether any Preferred Shares will, when so issued, be validly authorized and issued, fully paid, and non-assessable.

(f) The Company agrees that it will perform, execute, acknowledge and deliver, or cause to be performed, executed, acknowledged and delivered, all such further and other acts, instruments and assurances as may reasonably be required or reasonably requested by the Rights Agent for the carrying out or performing by the Rights Agent of the provisions of this Agreement.

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(g) The Rights Agent is hereby authorized and directed to accept written instructions with respect to the performance of its duties hereunder and certificates delivered pursuant to any provision hereof from any person reasonably believed by the Rights Agent to be from any one of the Chief Executive Officer, the Chief Financial Officer, the General Counsel any Vice President or the Secretary of the Company, and to apply to such officers for advice or instructions in connection with its duties under this Agreement, and such advice or instructions shall provide full authorization and protection to the Rights Agent, and the Rights Agent shall not be liable for any action taken, suffered or omitted to be taken by it in accordance with the written advice or instructions of any such officer or for any delay in acting while waiting for these instructions. The Rights Agent shall be fully authorized and protected in relying upon the most recent advice or instructions received by any such officer. Any application by the Rights Agent for written instructions from the Company may, at the option of the Rights Agent, set forth in writing any action proposed to be taken or omitted by the Rights Agent with respect to its duties or obligations under this Agreement.

(h) The Rights Agent and any affiliate, stockholder, director, officer, agent, representative or employee of the Rights Agent may buy, sell or deal in any of the Rights or other securities of the Company, or become pecuniarily interested in any transaction in which the Company may be interested, or contract with or lend money to the Company, or otherwise act as fully and freely as though it were not the Rights Agent under this Agreement, in each case in compliance with applicable laws. Nothing herein shall preclude the Rights Agent and such other Persons from acting in any other capacity for the Company or for any other legal entity.

(i) The Rights Agent may execute and exercise any of the rights or powers hereby vested in it or perform any duty hereunder either itself or by or through its attorneys or agents. The Rights Agent shall not be answerable or accountable for any act, omission, default, neglect, or misconduct of any such attorneys or agents or for any loss to the Company or any other Person resulting from any such act, omission, default, neglect or misconduct, absent gross negligence or bad faith in the selection and continued employment of such attorneys or agents thereof (which gross negligence or bad faith must be determined by a final, non-appealable judgment of a court of competent jurisdiction).

(j) No provision of this Agreement shall require the Rights Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of its rights if the Rights Agent believes that repayment of such funds or adequate indemnification against such risk or liability is not reasonably assured to it.

(k) The Rights Agent shall not be required to take notice or be deemed to have notice of any fact, event or determination (including, without limitation, any dates or events defined in this Agreement or the designation of any Person as an Acquiring Person, an Affiliate or Associate of an Acquiring Person or a Person with whom such Person is Acting in Concert) under this Agreement unless and until the Rights Agent shall be specifically notified in writing by the Company of such fact, event or determination, and all notices or other instruments required by this Agreement to be delivered to the Rights Agent must, in order to be effective, be received by the Rights Agent as specified in Section 26 hereof, and in the absence of such notice so delivered, the Rights Agent may conclusively assume no such event or condition exists.

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(1) The Rights Agent shall have no responsibility to the Company or any holders of the Right Certificates for interest or earnings on any moneys held by the Rights Agent pursuant to this Agreement.

Section 21. Change of Rights Agent. The Rights Agent or any successor Rights Agent may resign and be discharged from its duties under this Agreement upon thirty (30) days' notice in writing mailed to the Company and, in the event that the Rights Agent or one of its Affiliates is not also the transfer agent for the Company, to each transfer agent of the Common Shares and the Preferred Shares pursuant to Section 26. The Company may remove the Rights Agent or any successor Rights Agent upon thirty (30) days' notice in writing, mailed to the Rights Agent or successor Rights Agent, as the case may be, and to each transfer agent of the Common Shares and the Preferred Shares by registered or certified mail, and, after the Distribution Date, to the holders of the Right Certificates by first class mail. In the event the transfer agency relationship in effect between the Company and the Rights Agent terminates, the Rights Agent will be deemed to have resigned automatically and be discharged from its duties as Rights Agent under this Agreement as of the effective date of such termination, and the Company shall be responsible for sending any required notice. If the Rights Agent shall resign or be removed or shall otherwise become incapable of acting, the Company shall appoint a successor to the Rights Agent. If the Company shall fail to make such appointment within a period of thirty (30) days after giving notice of such removal or after it has been notified in writing of such resignation or incapacity by the resigning or incapacitated Rights Agent, then the incumbent Rights Agent or registered holder of any Right Certificate may apply to any court of competent jurisdiction for the appointment of a new Rights Agent. Any successor Rights Agent, whether appointed by the Company or by such a court, shall be (a) a Person (other than a natural person) organized and doing business under the laws of the United States or of any state of the United States, in good standing, which is authorized under such laws to exercise stock transfer powers, is subject to supervision or examination by federal or state authority, and has, along with its Affiliates, at the time of its appointment as Rights Agent a combined capital and surplus of at least \$50 million or (b) an Affiliate of a Person described in clause (a) of this sentence. After appointment, the successor Rights Agent shall be vested with the same powers, rights, duties and responsibilities as if it had been originally named as Rights Agent without further act or deed, and the predecessor Rights Agent shall deliver and transfer to the successor Rights Agent any property at the time held by it hereunder, and shall execute and deliver any further assurance, conveyance, act or deed necessary for the purpose but such predecessor Rights Agent shall not be required to make any additional expenditure or assume any additional liability in connection with the foregoing, and shall thereafter be discharged from all duties and obligations hereunder. Not later than the effective date of any such appointment the Company shall file notice thereof in writing with the predecessor Rights Agent and each transfer agent of the Common Shares and the Preferred Shares, and, after the Distribution Date, mail a notice in writing to the registered holders of the Right Certificates. Failure to give any notice provided for in this Section 21, however, or any defect therein, shall not affect the legality or validity of the resignation or removal of the Rights Agent or the appointment of the successor Rights Agent, as the case may be.

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Section 22. <u>Issuance of New Right Certificates</u>. Notwithstanding any of the provisions of this Agreement or of the Right Certificates to the contrary, the Company may, at its option, issue new Right Certificates evidencing Rights in such form as may be approved by the Board to reflect any adjustment or change in the Purchase Price and the number or kind or class of shares or other securities or property purchasable under the Right Certificates made in accordance with the provisions of this Agreement. In addition, in connection with the issuance or sale of Common Shares following the Distribution Date and prior to the earlier of (a) the Early Expiration Date (if applicable), (b) the Final Expiration Date, (c) the Redemption Date, and (d) the time at which the Rights are exchanged as provided in Section 24 hereof, the Company (i) shall, with respect to Common Shares so issued or sold pursuant to the exercise of stock options or under any employee benefit plan or arrangement, granted or awarded as of the Distribution Date, or upon the exercise, conversion or exchange of securities hereinafter issued by the Company (except as may otherwise be provided in the instrument(s) governing such securities), and (ii) may, in any other case, if deemed necessary or appropriate by the Board, issue Right Certificates representing the appropriate number of Rights in connection with such issuance or sale; <u>provided, however</u>, that (A) no such Right Certificate shall be issued if, and to the extent that, the Company shall be advised by counsel that such issuance would create a significant risk of material adverse tax consequences to the Company or the Person to whom such Right Certificate would be issued, and (B) no such Right Certificate shall be issued if, and to the extent that, appropriate adjustment shall otherwise have been made in lieu of the issuance thereof.

Section 23. Redemption.

(a) The Board may, at its option, at any time prior to such time as any Person becomes an Acquiring Person, redeem all, but not less than all, of the then outstanding Rights at a redemption price of \$0.0001 per Right, appropriately adjusted to reflect any stock split, stock dividend or similar transaction occurring after the date hereof (the "**Redemption Price**"). The redemption of the Rights by the Board may be made effective at such time, on such basis and subject to such conditions as the Board in its sole discretion may establish.

(b) Immediately upon the time of the effectiveness of the redemption of the Rights or such earlier time as may be determined by the Board in the action ordering such redemption (although not earlier than the time of such action) (the "**Redemption Date**"), and without any further action and without any notice, the right to exercise the Rights shall terminate and the only right thereafter of the holders of Rights shall be to receive the Redemption Price. The Company shall promptly give public notice of any such redemption (with prompt written notice to the Rights Agent); <u>provided</u>, <u>however</u>, that the failure to give, or any defect in, any such notice shall not affect the validity of such redemption. Within ten (10) Business Days after action of the Board ordering the redemption of the Rights, the Company shall mail, or cause the Rights Agent to mail (at the expense of the Company), a notice of redemption to the holders of the then outstanding Rights at their last addresses as they appear upon the registry books of the Rights Agent or, prior to the Distribution Date, on the registry books of the transfer agent for the Common Shares. Any notice mailed in the manner herein provided shall be deemed given, whether or not the holder receives the notice. If the payment of the Redemption Price is not included with such notice, each such notice shall state the method by which the payment of the Redemption Price will be made. Neither the Company nor any of its Affiliates or Associates may redeem, acquire or purchase for value any Rights at any time in any manner other than that specifically set forth in this Section 23 or in Section 24, other than in connection with the purchase of Common Shares prior to the Distribution Date.

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Section 24. Exchange.

(a) The Board may, at its option, at any time after a Stock Acquisition Date, mandatorily exchange all or part of the then outstanding and exercisable Rights (which excludes Rights held by an Excluded Person) for Common Shares at an exchange ratio of one Common Share per one one-thousandths of a Preferred Share represented by a Right, appropriately adjusted to reflect any stock split, stock dividend or similar transaction occurring after the date hereof (the "**Exchange Ratio**"). From and after the occurrence of an event specified in Section 13(a), any rights that theretofore have not been exchanged pursuant to this Section 24 shall thereafter be exercisable only in accordance with Section 13 and may not be exchanged pursuant to this Section 24. The exchange of the Rights by the Board may be made effective at such time, on such basis and with such conditions as the Board in its sole discretion may establish.

(b) Immediately upon the action of the Board ordering the exchange of any Rights pursuant to Section 24(a), and without any further action and without any notice, the right to exercise such Rights shall terminate and the only right thereafter of a holder of such Rights shall be to receive that number of Common Shares equal to the number of such Rights held by such holder multiplied by the Exchange Ratio. The Company shall promptly give reasonably detailed written notice of any such exchange to the Rights Agent, and shall promptly give public notice of any such exchange; provided, however, that the failure to give, or any defect in, any such notice shall not affect the validity of such exchange. Within ten (10) Business Days after action by the Board ordering the exchange of any Rights pursuant to Section 24(a), the Company shall mail, or cause the Rights Agent to mail, a notice of any such exchange to the holders of such Rights at their last addresses as they appear upon the registry books of the Rights Agent. Any notice mailed in the manner herein provided shall be deemed given, whether or not the holder receives the notice. Each such notice of exchange will state the method by which the exchange of the Common Shares for Rights will be effected and, in the event of any partial exchange, the number of Rights which will be exchanged. Any partial exchange shall be effected *pro rata* based on the number of Rights (other than Rights held by an Excluded Person) held by each holder of Rights.

(c) In any exchange pursuant to this Section 24, the Company, at its option, may substitute Preferred Shares or Common Stock Equivalents for Common Shares exchangeable for Rights, at the initial rate of one one-thousandth of a Preferred Share (or an appropriate number of Common Stock Equivalents) for each Common Share, as appropriately adjusted.

(d) If there shall not be sufficient Common Shares, Preferred Shares or Common Stock Equivalents authorized but unissued to permit any exchange of Rights as contemplated in accordance with this Section 24, the Company shall take all such action as may be necessary to authorize additional Common Shares, Preferred Shares or Common Stock Equivalents for issuance upon exchange of the Rights.

(e) The Company shall not be required to issue fractions of Common Shares or to distribute certificates which evidence fractional Common Shares. In lieu of issuing fractional Common Shares, the Company may instead pay to the registered holders of the Right Certificates with regard to which such fractional Common Shares would otherwise be issuable an amount in cash equal to the same fraction of the current per share market value of a whole Common Share. For the purposes of this Section 24(e), the current per share market value of a whole Common Share (as determined pursuant to the second sentence of Section 11(d)(i)) for the Trading Day immediately prior to the date of exchange pursuant to this Section 24.

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Section 25. Notice of Certain Events.

(a) If the Company shall after the Distribution Date propose: (i) to pay any dividend payable in stock of any class to the holders of its Preferred Shares or to make any other distribution to the holders of its Preferred Shares (other than a regular quarterly cash dividend); (ii) to offer to the holders of its Preferred Shares rights or warrants to subscribe for or to purchase any additional Preferred Shares or shares of stock of any class or any other securities, rights or options; (iii) to effect any reclassification of its Preferred Shares (other than a reclassification involving only the subdivision of outstanding Preferred Shares); (iv) to effect any consolidation or merger into or with any other Person, or to effect any sale or other transfer (or to permit one or more of its Subsidiaries to effect any sale or other transfer), in one or more transactions, of fifty percent (50%) or more of the assets or earning power of the Company and its Subsidiaries (taken as a whole) to any other Person; (v) to effect the liquidation, dissolution or winding-up of the Company; or (vi) to declare or pay any dividend on the Common Shares payable in Common Shares, or to effect a subdivision, combination or consolidation of the Common Shares (by reclassification or otherwise than by payment of dividends in Common Shares), then, in each such case, the Company shall give to each holder of a Right Certificate and the Rights Agent, in accordance with Section 26, a reasonably detailed notice of such proposed action, which shall specify the record date for the purposes of such stock dividend, or distribution of rights or warrants, or the date on which such reclassification, consolidation, merger, sale, transfer, liquidation, dissolution or winding-up is to take place and the date of participation therein by the holders of the Common Shares or Preferred Shares or both, if any such date is to be fixed, and such notice shall be so given in the case of any action covered by clause (i) or (ii) above at least ten (10) days prior to the record date for determining holders of the Preferred Shares for purposes of such action, and in the case of any such other action, at least ten days prior to the date of the taking of such proposed action or the date of participation therein by the holders of the Common Shares or Preferred Shares or both, whichever shall be the earlier.

(b) The Company shall, as soon as practicable after a Stock Acquisition Date, give to the Rights Agent and each holder of a Right Certificate, in accordance with Section 26, a notice that describes the transaction in which the a Person became an Acquiring Person and the consequences of the transaction to holders of Rights under Section 11(a)(ii).

Section 26. <u>Notices</u>. Notices or demands authorized by this Agreement to be given or made by the Rights Agent or by the holder of any Right Certificate to or on the Company shall be sufficiently given or made if in writing and when sent by overnight delivery service or first-class mail, postage prepaid, properly addressed (until another address is filed in writing with the Rights Agent) as follows:

Merrimack Pharmaceuticals, Inc. One Broadway, 14th Floor Cambridge, Massachusetts 02142 Attention: Tim Surgenor, Secretary

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With a copy to (which copy shall not constitute notice):

Paul Hastings, LLP 4747 Executive Drive, Twelfth Floor San Diego, CA 92121 Attention: Carl R. Sanchez Facsimile: (858) 458-3130

Subject to the provisions of Section 21, any notice or demand authorized by this Agreement to be given or made by the Company or by the holder of any Right Certificate to or on the Rights Agent shall be deemed given upon receipt and shall be sufficiently given or made if in writing when sent by overnight delivery service or registered or certified mail properly addressed (until another address is filed in writing with the Company) as follows:

Computershare Trust Company, N.A. 250 Royall Street Canton, MA 02021 Attention: Client Services

Notices or demands authorized by this Agreement to be given or made by the Company or the Rights Agent to the holder of any Right Certificate shall be sufficiently given or made if in writing, when sent by first-class mail, postage prepaid, addressed to such holder at the address of such holder as shown on the registry books of the Company.

Section 27. <u>Supplements and Amendments</u>. The Company may from time to time, and the Rights Agent shall if the Company so directs in writing, supplement or amend this Agreement without the approval of any holders of Right Certificates in order to cure any ambiguity, to correct or supplement any provision contained herein which may be defective or inconsistent with any other provisions herein, or to make any change to or delete any provision hereof or to adopt any other provisions with respect to the Rights which the Company may deem necessary or desirable; <u>provided</u>, <u>however</u>, that, from and after such time as any Person becomes an Acquiring Person, this Agreement shall not be amended or supplemented in any manner which would adversely affect the interests of the holders of Rights (other than an Acquiring Person and its Affiliates and Associates and any other Person with whom such Person is Acting in Concert). For the avoidance of doubt, the Company shall be entitled to adopt and implement such procedures and arrangements (including with third parties) as it may deem necessary or desirable to facilitate the exercise, exchange, trading, issuance or distribution of the Rights (and Preferred Shares) as contemplated hereby and to ensure that an Excluded Person does not obtain the benefits thereof, and amendments in respect of the foregoing shall not be deemed to adversely affect the interests of the londers of Rights Agent, subject to certification by any of the officers of the Company listed in Section 27 (b) that any such supplement or amendment complies with this Section 27. Notwithstanding anything in this Agreement to the contrary, the Rights Agent shall not be required to execute any supplement or amendment to this Agreement that it has reasonably determined would adversely affect its own rights, duties, obligations or immunities under this Agreement. No supplement or amendment to this Agreement shall be effective unless duly executed by the Rights Agent.

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Section 28. <u>Successors</u>. All the covenants and provisions of this Agreement by or for the benefit of the Company or the Rights Agent shall bind and inure to the benefit of their respective successors and assigns hereunder.

Section 29. <u>Benefits of this Agreement</u>. Nothing in this Agreement shall be construed to give to any Person or entity other than the Company, the Rights Agent and the registered holders of the Right Certificates any legal or equitable right, remedy or claim under this Agreement. This Agreement shall be for the sole and exclusive benefit of the Company, the Rights Agent and the registered holders of the Right Certificates.

Section 30. <u>Severability</u>. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction or other authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated; <u>provided</u>, <u>however</u>, that if such excluded provision shall affect the rights, immunities, liabilities, duties or obligations of the Rights Agent, the Rights Agent shall be entitled to resign immediately upon written notice to the Company.

Section 31. <u>Governing Law</u>. This Agreement and each Right Certificate issued hereunder shall be deemed to be a contract made under the laws of the State of Delaware and for all purposes shall be governed by and construed in accordance with the laws of such State applicable to contracts to be made and performed entirely within such State; <u>provided</u>, <u>however</u>, that all provisions regarding the rights, duties, liabilities and obligations of the Rights Agent shall be governed by and construed in accordance with the laws of New York applicable to contracts made and to be performed entirely within such State.

Section 32. <u>Counterparts</u>. This Agreement may be executed in any number of counterparts, and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument. A signature to this Agreement transmitted electronically shall have the same authority, effect and enforceability as an original signature.

Section 33. <u>Descriptive Headings</u>. Descriptive headings of the sections of this Agreement are inserted for convenience only and shall not control or affect the meaning or construction of any of the provisions hereof.

Section 34. <u>Administration</u>. Other than with respect to rights, duties, obligations and immunities of the Rights Agent, the Board shall have the exclusive power and authority to administer and interpret the provisions of this Agreement and to exercise all rights and powers specifically granted to the Board or the Company or as may be necessary or advisable in the administration of this Agreement. All such actions, calculations, determinations and interpretations which are done or made by the Board in good faith shall be final, conclusive and binding on the Company, the Rights Agent, holders of the Rights and all other parties and shall not subject the Board to any liability to the holders of the Rights. The Rights Agent is entitled always to assume the Board acted in good faith and shall be fully protected and incur no liability in reliance thereon.

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Section 35. <u>Force Majeure</u>. Notwithstanding anything to the contrary contained herein, the Rights Agent shall not be liable for any delays or failures in performance resulting from acts beyond its reasonable control including, without limitation, acts of God, terrorist acts, shortage of supply, breakdowns or malfunctions, interruptions or malfunction of any utilities, communications, or computer facilities, or loss of data due to power failures or mechanical difficulties with information storage or retrieval systems, labor difficulties, war, or civil unrest.

Section 36. Process to Seek Exemption. Any Person who desires to effect any acquisition of securities that might, if consummated, result in such Person becoming an Acquiring Person hereunder (a "Requesting Person") may, prior to any such acquisition and in accordance with this Section 36, request that the Board grant an exemption with respect to such acquisition under this Agreement so that such Person would be deemed to be an Exempt Person hereunder (an "Exemption Request"). An Exemption Request shall be in proper form and shall be delivered to the Company in accordance with the notice provisions of Section 26 of this Agreement. The Exemption Request shall be deemed made upon confirmed receipt by the Secretary of the Company. To be in proper form, an Exemption Request shall set forth (a) the name and address of the Requesting Person, (b) the number and percentage of Common Shares then Beneficially Owned by the Requesting Person, together with all Affiliates and Associates of the Requesting Person, and (c) a reasonably detailed description of the transaction or transactions by which the Requesting Person would propose to acquire Beneficial Ownership of Common Shares aggregating 4.9% or more of the Common Shares then outstanding and the maximum number and percentage of Common Shares that the Requesting Person proposes to acquire. The Board, or a duly constituted committee of independent directors, shall endeavor to make a determination whether to grant an exemption in response to an Exemption Request as promptly as practicable (and, in any event, within twenty (20) Business Days) after receipt thereof; provided, that the failure of the Board (or any such committee) to make a determination within such period shall be deemed to constitute the denial by the Board of the Exemption Request. The Requesting Person shall respond promptly to reasonable and appropriate requests for additional information from the Board and its advisors to assist the Board in making its determination. The Board, or a duly constituted committee of independent directors, shall only grant an exemption in response to an Exemption Request if the Board determines in its sole and absolute discretion, or such committee determines in its sole and absolute discretion, that the acquisition of Beneficial Ownership of Common Shares by the Requesting Person, considered alone or with other transactions (including past transactions or contemplated transactions), (i) will not jeopardize or endanger the Tax Benefits of the Company, taking into account such facts and circumstances as the Board (or any such committee of independent directors) reasonably deems relevant or (ii) is otherwise in the best interests of the Company. Any exemption granted hereunder may be granted in whole or in part, and may be subject to limitations or conditions (including a requirement that the Requesting Person agree that it will not acquire Beneficial Ownership of Common Shares in excess of the maximum number and percentage of shares approved by the Board), in each case, as and to the extent the Board, or a duly constituted committee of independent directors, shall determine necessary or desirable to provide for the protection of the Tax Benefits or as is otherwise in the best interests of the Company. The Exemption Request shall be considered and evaluated by the Board, or a duly constituted committee of independent directors, and the action of a majority of such directors (or such committee) shall be deemed to be the determination of the Board for purposes of such Exemption Request.

[Signature Page Follows]

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the date first above written.

MERRIMACK PHARMACEUTICALS, INC.

By: <u>/s/ Gary L. Crocker</u> Name: Gary L. Crocker Title: President

COMPUTERSHARE TRUST COMPANY, N.A.

By: <u>/s/ Jeanine Caldwell</u> Name: Jeanine Caldwell Title: VP, Relationship Management

[Signature Page to Section 382 Rights Agreement]

EXHIBIT A

FORM OF CERTIFICATE OF DESIGNATION OF SERIES Z JUNIOR PARTICIPATING PREFERRED STOCK OF MERRIMACK PHARMACEUTICALS, INC.

(Pursuant to Section 151 of the General Corporation Law of the State of Delaware)

In accordance with Section 151 of the Delaware General Corporation Law, the undersigned corporation hereby certifies that the following resolution was adopted by the Board of Directors (the "**Board**") of Merrimack Pharmaceuticals, Inc., a Delaware corporation (the "**Corporation**") at a meeting duly called and held on November 22, 2019:

RESOLVED, that pursuant to the authority granted to and vested in the Board in accordance with the provisions of the Company's Restated Certificate of Incorporation, as amended and as may be further amended from time to time (the **"Certificate of Incorporation"**), the Board hereby creates, as of and contingent with the Rights Agreement being signed, a series of junior participating preferred stock of the Company to be designated "Series Z Junior Participating Preferred Stock" with a par value of \$0.01 per share, and hereby states the designation and number of shares, and fixes the designations and the qualifications, limitations and restrictions thereof (in addition to the provisions set forth in the Certificate of Incorporation, which are applicable to the Preferred Stock of all classes and series):

Section 1. <u>Designation and Amount</u>. The shares of this series shall be designated as Series Z Junior Participating Preferred Stock (the "**Series Z Junior Preferred Stock**"), and the number of shares constituting the Series Z Junior Preferred Stock shall be 30,000. Such number of shares may be increased or decreased by resolution of the Board; <u>provided</u>, that no decrease shall reduce the number of shares of Series Z Junior Preferred Stock to a number less than the number of shares then outstanding plus the number of shares reserved for issuance upon the exercise of outstanding options, rights or warrants or upon the conversion of any outstanding securities issued by the Corporation convertible into Series Z Junior Preferred Stock.

Section 2. Dividends and Distributions.

(a) Subject to the rights of the holders of any shares of any series of Preferred Stock (or any other stock) ranking prior and superior to the Series Z Junior Preferred Stock with respect to dividends, the holders of shares of Series Z Junior Preferred Stock shall be entitled to receive, when, as and if declared by the Board out of funds legally available for the purpose, quarterly dividends payable in cash on the last day of March, June, September and December in each year (each such date a "Quarterly Dividend Payment Date"), commencing on the first Quarterly Dividend Payment Date after the first issuance of a share or fraction of a share of Series Z Junior Preferred Stock, in an amount (if any) per share (rounded to the nearest cent), subject to the provision for adjustment hereinafter set forth, equal to 1,000 multiplied by the aggregate per

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share amount of all cash dividends, and 1,000 multiplied by the aggregate per share amount (payable in kind) of all non-cash dividends or other distributions, other than a dividend payable in shares of Common Stock, par value \$0.01 per share (the "**Common Stock**"), of the Corporation or a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise) declared on the Common Stock since the immediately preceding Quarterly Dividend Payment Date or, with respect to the first Quarterly Dividend Payment Date, since the first issuance of any share or fraction of a share of Series Z Junior Preferred Stock. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock (by reclassification or consolidation of the outstanding shares of Common Stock (by reclassification or consolidation of the outstanding shares of Common Stock (by reclassification or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the amount to which holders of shares of Series Z Junior Preferred Stock were entitled immediately prior to such event under the preceding sentence shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(b) The Corporation shall declare a dividend or distribution on the Series Z Junior Preferred Stock as provided in paragraph (a) of this Section 2 immediately after it declares a dividend or distribution on the Common Stock (other than a dividend payable in shares of Common Stock).

(c) Dividends due pursuant to paragraph (a) of this Section 2 shall begin to accrue and be cumulative on outstanding shares of Series Z Junior Preferred Stock from the Quarterly Dividend Payment Date next preceding the date of issue of such shares, unless the date of issue of such shares is prior to the record date for the first Quarterly Dividend Payment Date, in which case dividends on such shares shall begin to accrue from the date of issue of such shares, or unless the date of issue is a Quarterly Dividend Payment Date or is a date after the record date for the determination of holders of shares of Series Z Junior Preferred Stock entitled to receive a quarterly dividend and before such Quarterly Dividend Payment Date, in either of which events such dividends shall begin to accrue and be cumulative from such Quarterly Dividend Payment Date. Accrued but unpaid dividends shall not bear interest. Dividends paid on the shares of Series Z Junior Preferred Stock in an amount less than the total amount of such dividends at the time accrued and payable on such shares shall be allocated pro rata on a share-by-share basis among all such shares at the time outstanding. The Board may fix a record date for the determination of holders of Series Z Junior Preferred Stock entitled to receive payment of a dividend or distribution declared thereon, which record date shall be not more than 60 days prior to the date fixed for the payment thereof.

Section 3. Voting Rights. The holders of shares of Series Z Junior Preferred Stock shall have the following voting rights:

(a) Subject to the provision for adjustment hereinafter set forth, each share of Series Z Preferred Stock shall entitle the holder thereof to 1,000 votes on all matters submitted to a vote of the stockholders of the Corporation. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a

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subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the number of votes per share to which holders of shares of Series Z Junior Preferred Stock were entitled immediately prior to such event shall be adjusted by multiplying such number by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(b) Except as otherwise provided herein, by the Certificate of Incorporation, including any other Certificate of Designation creating a series of Preferred Stock or any similar stock, the bylaws of the Corporation or by applicable law, the holders of shares of Series Z Junior Preferred Stock and the holders of shares of Common Stock and any other capital stock of the Corporation having general voting rights shall vote together as one class on all matters submitted to a vote of stockholders of the Corporation.

(c) Except as set forth herein, or as otherwise required by law, holders of Series Z Junior Preferred Stock shall have no special voting rights and their consent shall not be required (except to the extent they are entitled to vote with holders of Common Stock as set forth herein) for taking any corporate action.

Section 4. Certain Restrictions.

(a) Whenever quarterly dividends or other dividends or distributions payable on the Series Z Junior Preferred Stock as provided in Section 2 are in arrears, thereafter and until all accrued and unpaid dividends and distributions, whether or not declared, on shares of Series Z Junior Preferred Stock outstanding shall have been paid in full, the Corporation shall not:

(i) declare or pay dividends, or make any other distributions, on any shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding-up) to the Series Z Junior Preferred Stock;

(ii) declare or pay dividends, or make any other distributions, on any shares of stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding-up) with the Series Z Junior Preferred Stock, except dividends paid ratably on the Series Z Junior Preferred Stock and all such parity stock on which dividends are payable or in arrears in proportion to the total amounts to which the holders of all such shares are then entitled; or

(iii) redeem or purchase or otherwise acquire for consideration shares of any stock ranking junior (either as to dividends or upon liquidation, dissolution or winding-up) to the Series Z Junior Preferred Stock, provided that the Corporation may at any time redeem, purchase or otherwise acquire shares of any such junior stock in exchange for shares of any stock of the Corporation ranking junior (as to dividends and upon dissolution, liquidation or winding-up) to the Series Z Junior Preferred Stock.

(b) The Corporation shall not permit any subsidiary of the Corporation to purchase or otherwise acquire for consideration any shares of stock of the Corporation unless the Corporation could, under paragraph (a) of this Section 4, purchase or otherwise acquire such shares at such time and in such manner.

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Section 5. <u>Reacquired Shares</u>. Any shares of Series Z Junior Preferred Stock purchased or otherwise acquired by the Corporation in any manner whatsoever shall be retired and canceled promptly after the acquisition thereof. The Corporation shall take all such actions as are necessary to cause all such shares to become authorized but unissued shares of Preferred Stock that may be reissued as part of a new series of Preferred Stock subject to the conditions and restrictions on issuance set forth herein or in the Certificate of Incorporation, including any Certificate of Designation creating a series of Preferred Stock or any similar stock, or as otherwise required by law.

Section 6. Liquidation, Dissolution or Winding-Up.

(a) Upon any liquidation, dissolution or winding-up of the Corporation, voluntary or otherwise, no distribution shall be made to the holders of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding-up) to the Series Z Junior Preferred Stock unless, prior thereto, the holders of Series Z Junior Preferred Stock shall have received an amount per share (the "**Series Z Liquidation Preference**"), subject to the provision for adjustment hereinafter set forth, equal to 1,000 multiplied by the aggregate amount to be distributed per share to holders of shares of Common Stock plus an amount equal to any accrued and unpaid dividends. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Series Z Junior Preferred Stock were entitled immediately prior to such event under the preceding sentence shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(b) If there are not sufficient assets available to permit payment in full of the Series Z Liquidation Preference and the liquidation preferences of all other classes and series of stock of the Corporation, if any, that rank on a parity with the Series Z Junior Preferred Stock in respect thereof, then the assets available for such distribution shall be distributed ratably to the holders of the Series Z Junior Preferred Stock and the holders of such parity shares in proportion to their respective liquidation preferences.

(c) Neither the merger nor consolidation of the Corporation into or with another entity nor the merger or consolidation of any other entity into or with the Corporation shall be deemed to be a liquidation, dissolution or winding-up of the Corporation within the meaning of this Section 6.

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Section 7. <u>Consolidation, Merger, Etc</u>. If the Corporation shall enter into any consolidation, merger, combination or other transaction in which the shares of Common Stock are exchanged for or changed into other stock or securities, cash and/or any other property, then in any such case each share of Series Z Junior Preferred Stock shall at the same time be similarly exchanged or changed into an amount per share, subject to the provision for adjustment hereinafter set forth, equal to 1,000 multiplied by the aggregate amount of stock, securities, cash and/or any other property (payable in kind), as the case may be, into which or for which each share of Common Stock is changed or exchanged. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, shall be adjusted by multiplying such amount by a fraction, the numerator of which is the number of shares of Common Stock that were outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

Section 8. <u>Amendment</u>. While any Series Z Junior Preferred Stock is issued and outstanding, the Certificate of Incorporation shall not be amended in any manner, including in a merger or consolidation, which would alter, change or repeal the powers, preferences or special rights of the Series Z Junior Preferred Stock so as to affect them adversely without the affirmative vote of the holders of at least two-thirds of the outstanding shares of Series Z Junior Preferred Stock, voting together as a single class.

Section 9. <u>Rank</u>. The Series Z Junior Preferred Stock shall rank, with respect to the payment of dividends and upon liquidation, dissolution and winding-up, junior to all other series of Preferred Stock, unless the terms of any such series shall provide otherwise, and shall rank senior to the Common Stock as to such matters.

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IN WITNESS WHEREOF, this Certificate of Designation is executed on behalf of the Corporation by its duly authorized officer this 3rd day of December, 2019.

MERRIMACK PHARMACEUTICALS, INC.

By:

Name: Gary L. Crocker Title: President

EXHIBIT B

FORM OF RIGHT CERTIFICATE

Certificate No. R-__

Rights

NOT EXERCISABLE AFTER THE FINAL EXPIRATION DATE (AS DEFINED IN THE RIGHTS AGREEMENT) OR EARLIER IF REDEMPTION, EXCHANGE OR TERMINATION OCCURS OR AS OTHERWISE SPECIFIED IN THE RIGHTS AGREEMENT. THE RIGHTS ARE SUBJECT TO REDEMPTION AT \$0.0001 PER RIGHT AND TO EXCHANGE ON THE TERMS SET FORTH IN THE RIGHTS AGREEMENT. UNDER CERTAIN CIRCUMSTANCES, RIGHTS THAT ARE OR WERE ACQUIRED OR BENEFICIALLY OWNED BY AN ACQUIRING PERSON OR ANY ASSOCIATES OR AFFILIATES THEREOF OR ANY OTHER PERSON WITH WHOM SUCH PERSON IS ACTING IN CONCERT (AS SUCH TERMS ARE DEFINED IN THE RIGHTS AGREEMENT), OR ANY SUBSEQUENT HOLDER OF SUCH RIGHTS, MAY BECOME NULL AND VOID.

RIGHT CERTIFICATE

MERRIMACK PHARMACEUTICALS, INC.

This certifies that _______, or registered assigns, is the registered owner of the number of Rights set forth above, each of which entitles the owner thereof, subject to the terms, provisions and conditions of the Section 382 Rights Agreement (the "**Rights Agreement**"), dated as of December 3, 2019, between Merrimack Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and Computershare Trust Company, N.A., a federally chartered trust company, as Rights Agent (or any successor rights agent) (the "**Rights Agent**"), as may be amended from time to time, to purchase from the Company at any time after the Distribution Date and prior to the Final Expiration Date or earlier under certain circumstances set forth in the Rights Agreement, at the offices of the Rights Agent designated for such purpose, or at the office of its successor as Rights Agent, one one-thousandth of a fully paid non-assessable share of Series Z Junior Participating Preferred Stock, par value \$0.01 per share (the "**Preferred Shares**"), of the Company, at a purchase price of \$18.00 per one one-thousandth of a Preferred Share (the "**Purchase Price**"), upon presentation and surrender of this Right Certificate with the Form of Election to Purchase properly completed and duly executed, accompanied by such documentation as the Rights Agent may reasonably request. The number of Rights evidenced by this Right Certificate (and the number of one one-thousandths of a Preferred Share which may be purchased upon exercise hereof) set forth above, and the Purchase Price set forth above, are the number and Purchase Price as of December 3, 2019, based on the Preferred Shares as constituted at such date. As provided in the Rights Agreement, the Purchase Price and the number of one one-thousandths of a Preferred Share which may be purchased upon the exercise of the Rights evidenced by this Right Certificate are subject to modification and adjustment upon the happening of certain events.

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From and after the occurrence of a Stock Acquisition Date, if the Rights evidenced by this Right Certificate are or were acquired or Beneficially Owned by an Acquiring Person, an Associate or Affiliate of an Acquiring Person or any Person with whom such Person is Acting in Concert, such Rights shall become void, and any holder of such Rights shall thereafter have no right to exercise such Rights.

Capitalized terms used herein and not otherwise defined shall have the meaning ascribed to such terms in the Rights Agreement. This Right Certificate is subject to all of the terms, provisions and conditions of the Rights Agreement, which terms, provisions and conditions are incorporated herein by this reference and made a part hereof, and to which Rights Agreement reference is made for a full description of the rights, limitations of rights, obligations, duties and immunities hereunder of the Rights Agreem, the Company and the holders of the Right Certificates. Copies of the Rights Agreement are on file at the principal executive offices of the Company and the office of the Rights Agent designated for such purpose.

This Right Certificate, with or without other Right Certificates, upon surrender at the office or offices of the Rights Agent designated for such purpose, accompanied by such documentation as the Rights Agent may reasonably request, may be exchanged for another Right Certificate or Right Certificates of like tenor and date evidencing Rights entitling the holder to purchase a like aggregate number of Preferred Shares as the Rights evidenced by the Right Certificate or Right Certificates surrendered shall have entitled such holder to purchase. If this Right Certificate shall be exercised in part, the holder shall be entitled to receive upon surrender hereof another Right Certificate or Right Certificates for the number of whole Rights not exercised.

Subject to the provisions of the Rights Agreement, at the Company's option, the Rights evidenced by this Certificate (i) may be redeemed by the Company at a redemption price of \$0.0001 per Right or (ii) may be exchanged in whole or in part for shares of the Company's Common Stock, par value \$0.01 per share, Preferred Shares, cash, debt securities or other assets, property or instruments.

No fractional Preferred Shares will be issued upon the exercise of any Right or Rights evidenced hereby (other than fractions which are integral multiples of one one-thousandth of a Preferred Share, which may, at the election of the Company, be evidenced by depositary receipts), but in lieu thereof a cash payment will be made, as provided in the Rights Agreement.

From and after the time any Person becomes an Acquiring Person, if the Rights evidenced by this Right Certificate are beneficially owned by (i) an Acquiring Person, an Associate or Affiliate of an Acquiring Person or any Person with whom such Person is Acting in Concert, (ii) a transferee of any such Person described in clause (i), or (ii) under certain circumstances specified in the Rights Agreement, a transferee of any such Acquiring Person, an Associate or Affiliate of an Acquiring Person or any Person with whom such Person is Acting in Concert, who becomes a transferee prior to or concurrently with the Acquiring Person becoming such, such Rights shall become null and void without any further action and no holder hereof shall have any right with respect to such Rights from and after the time any Person becomes an Acquiring Person.

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In certain circumstances described in the Rights Agreement, the Rights evidenced hereby may entitle the registered holder thereof to purchase securities of an entity other than the Company or securities of the Company other than Preferred Stock or assets of the Company, all as provided in the Rights Agreement.

No holder of this Right Certificate, as such, shall be entitled to vote or receive dividends or be deemed for any purpose the holder of the Preferred Shares or of any other securities of the Company which may at any time be issuable on the exercise or exchange hereof, nor shall anything contained in the Rights Agreement or herein be construed to confer upon the holder hereof, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action, or to receive notice of meetings or other actions affecting stockholders (except as provided in the Rights Agreement), or to receive dividends or subscription rights, or otherwise, until the Right or Rights evidenced by this Right Certificate shall have been exercised or exchanged as provided in the Rights Agreement.

This Right Certificate shall not be valid or obligatory for any purpose until it shall have been countersigned by the Rights Agent.

WITNESS the facsimile signature of the proper officers of the Company and its corporate seal.

Date:

=

ATTEST:

Name: Title:

me.

Countersigned:

COMPUTERSHARE TRUST COMPANY, N.A., as Rights Agent

By:

Name: Title: MERRIMACK PHARMACEUTICALS, INC.

By:

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Name: Title:

111111

[Form of Reverse Side of Right Certificate]

FORM OF ASSIGNMENT

(To be executed by the registered holder if such holder desires to transfer the Right Certificate.)

FOR VALUE RECEIVED, _______ hereby sells, assigns and transfers unto

(Please print name and address of transferee)

this Right Certificate, together with all right, title and interest therein, and does hereby irrevocably constitute and appoint _ Attorney, to transfer the within Right Certificate on the books of the within-named Company, with full power of substitution.

Date: ____

Signature

Signature Guaranteed:

Signatures must be guaranteed by an eligible guarantor institution (bank, stock broker or savings and loan association with membership in an approved signature medallion program).

(To be completed if true)

The undersigned hereby certifies that the Rights evidenced by this Right Certificate are not Beneficially Owned by, were not acquired by the undersigned from and are not being assigned to an Acquiring Person, an Associate or Affiliate of an Acquiring Person or any Person with whom such Person is Acting in Concert.

Signature

NOTICE

In the event the certification set forth above is not completed in connection with a purported assignment, the Company will deem the Beneficial Owner of the Rights evidenced by the enclosed Right Certificate to be an Acquiring Person or a transferee of an Acquiring Person and accordingly will deem the Rights evidenced by such Right Certificate to be null and void and not transferable or exercisable.

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[To be attached to each Right Certificate]

FORM OF ELECTION TO EXERCISE

(To be executed if holder desires to exercise the Right Certificate.)

TO MERRIMACK PHARMACEUTICALS, INC.:

number: _____

Please print name and address:

____.

If such number of Rights shall not be all the Rights evidenced by this Right Certificate, a new Right Certificate for the balance remaining of such Rights shall be registered in the name of and delivered to:

Please insert Social Security or other identifying number:

Please print name and address:

·-----•

Date: _____, ____,

Signature

(Signature must conform to the holder specified on the Right Certificate)

Signature Guaranteed:

Signatures must be guaranteed by an eligible guarantor institution (bank, stock broker or savings and loan association with membership in an approved signature medallion program).

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(To be completed if true)

The undersigned hereby certifies that the Rights evidenced by this Right Certificate are not Beneficially Owned by, were not acquired by the undersigned from and are not being assigned to an Acquiring Person, an Associate or Affiliate of an Acquiring Person or any Person with whom such Person is Acting in Concert.

Signature

NOTICE

In the event the certification set forth above is not completed in connection with a purported assignment, the Company will deem the Beneficial Owner of the Rights evidenced by the enclosed Right Certificate to be an Acquiring Person or a transferee of an Acquiring Person and accordingly will deem the Rights evidenced by such Right Certificate to be null and void and not transferable or exercisable.

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EXHIBIT C

MERRIMACK PHARMACEUTICALS, INC. SUMMARY OF RIGHTS TO PURCHASE PREFERRED SHARES

UNDER CERTAIN CIRCUMSTANCES, RIGHTS THAT ARE OR WERE ACQUIRED OR BENEFICIALLY OWNED BY AN ACQUIRING PERSON, AN ASSOCIATE OR AFFILIATE OF AN ACQUIRING PERSON OR ANY PERSON WITH WHOM SUCH PERSON IS ACTING IN CONCERT (AS SUCH TERMS ARE DEFINED IN THE RIGHTS AGREEMENT), OR ANY SUBSEQUENT HOLDER OF SUCH RIGHTS, MAY BECOME NULL AND VOID.

On December 3, 2019, Merrimack Pharmaceuticals Inc., a Delaware corporation (the "**Company**") entered into a Section 382 Rights Agreement (the "**Rights Agreement**"), between the Company and Computershare Trust Company, N.A., a federally chartered trust company, as Rights Agent. Pursuant to the Rights Agreement, the Company will issue a dividend of one preferred share purchase right (a "**Right**") for each share of Common Stock, par value \$0.01 per share (the "**Common Shares**") payable on December 13, 2019 (the "**Record Date**") to the stockholders of record on that date. Each Right entitles the registered holder to purchase from the Company one one-thousandth of a share of Series Z Preferred Stock, par value \$0.01 per share (the "**Preferred Shares**"), of the Company, at a price of \$18.00 per one one-thousandth of a Preferred Share represented by a Right (the "**Purchase Price**"), subject to adjustment. The description and terms of the Rights are set forth in the Rights Agreement. Capitalized terms used but not defined in this summary have the meanings ascribed to such terms in the Rights Agreement.

Until the earlier of (i) the close of business on the tenth (10th) day following a public announcement that a Person or group of Affiliated or Associated Persons has acquired Beneficial Ownership of 4.9% or more of the outstanding Common Shares (an "**Acquiring Person**") (or, in the event an exchange is effected in accordance with Section 24 of the Rights Agreement and the Board determines that a later date is advisable, then such later date) or (ii) the close of business on the tenth business day (or such later date as may be determined by action of the Board prior to such time as any Person becomes an Acquiring Person) following the commencement of a tender offer or exchange offer the consummation of which would result in the Beneficial Ownership by a Person or group of 4.9% or more of the outstanding Common Shares (the earlier of such dates described in clauses (i) and (ii), the "**Distribution Date**"), the Rights will be evidenced, with respect to any of the Common Share certificates outstanding as of the Record Date, by such Common Share certificate with a copy of this Summary of Rights attached thereto (unless such Rights are recorded in book entry).

A Person shall not be deemed to be an Acquiring Person if such Person, at the time of the first public announcement of the Rights Agreement, is a Beneficial Owner of 4.9% or more of the Common Shares of the Company then outstanding (a "**Grandfathered Stockholder**"); <u>provided</u>, <u>however</u>, that if a Grandfathered Stockholder increases its Beneficial Ownership of the

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Common Shares of the Company as of any date on or after the date of the public announcement of this Agreement, then such Grandfathered Stockholder shall no longer be deemed to be a Grandfathered Stockholder unless, upon such acquisition of Beneficial Ownership of additional Common Shares of the Company, such Person is not then the Beneficial Owner of 4.9% or more of the Common Shares of the Company then outstanding; provided, further, that upon the first decrease of a Grandfathered Stockholder's Beneficial Ownership below 4.9% of the Common Shares of the Company then outstanding, such Grandfathered Stockholder shall no longer be deemed to be a Grandfathered Stockholder and this proviso shall have no further force or effect with respect to such Person.

In general, "**Beneficial Ownership**" shall include any securities such Person, or any of such Person's Affiliates or Associates (i) would be deemed to actually or constructively own for purposes of Section 382 of the Code and the regulations promulgated thereunder, (to the extent ownership of such securities would be attributed to such Persons under Section 382 of the Code and the regulations promulgated thereunder), or (ii) which are directly or indirectly beneficially owned by any other Person with whom such Person has any agreement, arrangement or understanding, whether or not in writing, for the purpose of acquiring, holding, voting or disposing of any securities of the Company or cooperating in obtaining, changing or influencing the control of the Company; <u>provided</u>, that the effect of such agreement, arrangement or understanding is to treat such Person as an "entity" under Section 1.382-3(a)(1) of the Department of Treasury regulations.

The Rights Agreement provides that, until the Distribution Date, the Rights will be transferred with and only with the Common Shares. Until the Distribution Date (or earlier redemption or expiration of the Rights), new Common Share certificates issued after the Record Date or upon transfer or new issuance of Common Shares will contain a notation incorporating the Rights Agreement by reference. Until the Distribution Date (or earlier redemption or expiration of the surrender for transfer of any certificates for Common Shares outstanding as of the Record Date, even without such notation or a copy of this Summary of Rights being attached thereto, will also constitute the transfer of the Rights associated with the Common Shares represented by such certificate. As soon as practicable following the Distribution Date, separate certificates evidencing the Rights ("**Right Certificates**") will be mailed to holders of record of the Common Shares as of the close of business on the Distribution Date, and such separate Right Certificates alone will evidence the Rights (unless such Rights are recorded in book entry).

The Rights are not exercisable until the Distribution Date. The Rights will expire on the earlier of (i) the Close of Business on December 2, 2022, (ii) the close of business on the date that the Board determines that (A) the Rights Agreement is no longer necessary or desirable for the preservation of the Tax Benefits or (B) the Tax Benefits have been fully utilized and may no longer be carried forward, (iii) the time at which the Rights are redeemed, (iv) the time at which the Rights are exchanged, and (v) if the Rights Agreement has not been approved by the stockholders prior to the conclusion of the Company's 2020 annual meeting, the Close of Business on such date.

The Purchase Price payable, and the number of Preferred Shares or other securities or property issuable, upon exercise of the Rights is subject to adjustment from time to time to prevent dilution (i) in the event of a stock dividend on the Preferred Shares payable in Preferred Shares or a subdivision or combination of the Preferred Shares, (ii) upon the grant to holders of the Preferred Shares of certain rights or warrants to subscribe for or purchase Preferred Shares at

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a price, or securities convertible into Preferred Shares with a conversion price, less than the then current market price of the Preferred Shares, or (iii) upon the distribution to holders of the Preferred Shares of evidences of indebtedness or assets (excluding regular periodic cash dividends paid out of earnings or retained earnings or dividends payable in Preferred Shares) or of subscription rights or warrants (other than those referred to above).

The number of outstanding Rights and the number of Preferred Shares issuable upon exercise of each Right are also subject to adjustment in the event of a stock split of the Common Shares or a stock dividend on the Common Shares payable in Common Shares or subdivisions, consolidations or combinations of the Common Shares occurring, in any such case, prior to the Distribution Date.

Preferred Shares purchasable upon exercise of the Rights will not be redeemable. Each Preferred Share will be entitled to a quarterly dividend payment of 1,000 multiplied by the dividend declared per Common Share. In the event of liquidation, the holders of the Preferred Shares will be entitled to a payment per share equal to 1,000 multiplied by the aggregate payment made per Common Share. Each Preferred Share will have 1,000 votes, voting together with the Common Shares. In the event of any merger, consolidation or other transaction in which Common Shares are exchanged, each Preferred Share will be entitled to receive 1,000 multiplied by the amount received per Common Share.

Because of the nature of the dividend, liquidation and voting rights of the Preferred Shares, the value of the one one-thousandth of a Preferred Share purchasable upon exercise of each Right should approximate the value of one Common Share.

From and after the time any Person becomes an Acquiring Person, if the Rights evidenced by a Right Certificate are or were acquired or Beneficially Owned by an Acquiring Person, an Associate or Affiliate of an Acquiring Person or any Person with whom such Person is Acting in Concert, such Rights shall become void, and any holder of such Rights shall thereafter have no right to exercise such Rights.

If any Person becomes an Acquiring Person, proper provision shall be made so that each holder of a Right, other than Rights Beneficially Owned by the Acquiring Person, an Associate or Affiliate of the Acquiring Person or any Person with whom such Person is Acting in Concert (all of which will thereafter be void), will thereafter have the right to receive upon exercise that number of Common Shares having a market value of two times the Purchase Price of the Right. If the Board so elects, the Company shall deliver upon payment of the Purchase Price of a Right an amount of cash or securities equivalent in value to the Common Shares issuable upon exercise of a Right.

If, at any time after a Person becomes an Acquiring Person, the Company is acquired in a merger or other business combination transaction or 50% or more of its consolidated assets or earning power are sold, proper provision will be made so that each holder of a Right will thereafter have the right to receive, upon the exercise thereof at the then current Purchase Price of the Right, that number of shares of common stock of the acquiring company which at the time of such transaction will have a market value of two times the Purchase Price of the Right.

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At any time after any Person becomes an Acquiring Person and prior to the acquisition by any Person or group of a majority of the outstanding Common Shares, the Board may exchange the Rights (other than Rights owned by such Person or group which have become void), in whole or in part, at an exchange ratio of one Common Share per Right (subject to adjustment). The exchange of the Rights by the Board may be made effective at such time, on such basis and with such conditions as the Board in its sole discretion may establish.

With certain exceptions, no adjustment in the Purchase Price will be required until cumulative adjustments require an adjustment of at least 1% in such Purchase Price. No fractional Preferred Shares will be issued (other than fractions which are integral multiples of one one-thousandth of a Preferred Share, which may, at the election of the Company, be evidenced by depositary receipts), and in lieu thereof, an adjustment in cash will be made based on the market price of the Preferred Shares on the last trading day prior to the date of exercise.

At any time prior to the time any Person becomes an Acquiring Person, the Board may redeem the Rights in whole, but not in part, at a price of \$0.0001 per Right (the "**Redemption Price**"). The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the Board in its sole discretion may establish. Immediately upon any redemption of the Rights, the right to exercise the Rights will terminate and the only right of the holders of Rights will be to receive the Redemption Price.

The terms of the Rights may be amended by the Board without the consent of the holders of the Rights. However, from and after such time as any Person becomes an Acquiring Person, the Rights Agreement shall not be amended or supplemented in any manner which would adversely affect the interests of the holders of Rights (other than an Acquiring Person, an Associate or Affiliate of an Acquiring Person or any Person with whom such Person is Acting in Concert).

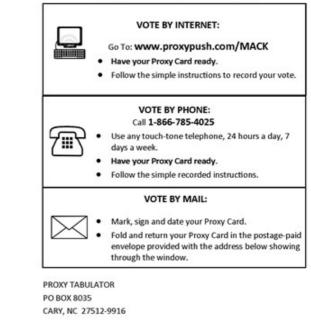
Until a Right is exercised, the holder thereof, as such, will have no rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends.

A copy of the Rights Agreement has been filed with the Securities and Exchange Commission as an Exhibit to a Current Report on Form 8-K. A copy of the Rights Agreement is available free of charge from the Company. This summary description of the Rights does not purport to be complete and is qualified in its entirety by reference to the Rights Agreement, which is hereby incorporated herein by reference.

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Merrimack PO BOX 8035 , Cary, NC 27512-9916

YOUR VOTE IS IMPORTANT!



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PRELIMINARY COPY SUBJECT TO COMPLETION MERRIMACK PHARMACEUTICALS, INC. Annual Meeting of Stockholders May 28, 2020 9:00 a.m. This proxy is solicited by the Board of Directors

The stockholder(s) hereby appoint(s) Gary L. Crocker and Ulrik B. Nielsen, or either of them, as proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this proxy, all of the shares of common stock of MERRIMACK PHARMACEUTICALS, INC. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders to be held at 9:00 a.m., Eastern Time, on May 28, 2020, virtually at www.proxydocs.com/MACK or any adjournment or postponement thereof. The proxies are further authorized to vote, in their discretion, for the election of a person to the Board of Directors if any nominee named herein becomes unable to serve or for good cause will not serve, upon all matters incident to the conduct of the meeting, and upon such other business as may properly come before the meeting or any adjournment or postponement thereof, to the extent permitted by Rule 14a-4(c) of the Securities Exchange Act of 1934, as amended.

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

Please mark, sign, date and return this proxy card promptly using the enclosed reply envelope. If you vote your proxy by Internet or Telephone, you do NOT need to mail back your proxy card. This proxy revokes all previous proxies.

Joint owners should each sign pe	ministrator or other fiduciary, please give full title as such. rsonally. If a corporation, please sign in full corporate name, title. If a partnership, please sign in partnership name by)	
Signature	Date	
Signature	Date	Scan code for mobile voting
011012		

(NOTE: Please sign exactly as your name(s) appear(s) hereon. All holders must sign. When

PLEASE BE SURE TO SIGN AND DATE THIS CARD AND MARK ON THE REVERSE SIDE

PXY-MACK-V2

MERRIMACK PHARMACEUTICALS, INC. Annual Meeting of Stockholders May 28, 2020 9:00 a.m.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Proxy Statement and Annual Report for this meeting are available at www.proxydocs.com/MACK

PLEASE MARK, SIGN AND DATE THIS PROXY AND RETURN THIS PROXY PROMPTLY IN THE ENCLOSED ENVELOPE.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK. Example:

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

The Board of Directors recommends you vote FOR each director nominee:

1. Election of Directors

Nominees:	FOR	WITHHOLD
01. Gary L. Crocker		
02. Eric D. Andersen		
03. Noah G. Levy		
04. Ulrik B. Nielsen		
05. Russell T. Ray		

The Board of Directors recommends you vote FOR Proposals 2, 3 and 4, and AGAINST Proposal 5:		FOR	AGAINST	ABSTAIN
2.	To approve, on a non-binding, advisory basis, our executive compensation.			
3.	To ratify the selection of Marcum LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020.			
4.	To approve the Section 382 Rights Plan, dated as of December 3, 2019, by and between the Company and Computershare Trust Company, N.A.			
5.	To act upon a stockholder proposal to require an independent board chair.			

NOTE: The proxies are authorized to vote, in their discretion, upon such other business as may properly come before the meeting or any adjournment or postponement thereof, to the extent permitted by Rule 14a-4(c) of the Securities Exchange Act of 1934, as amended.

YOUR VOTE IS IMPORTANT! PLEASE BE SURE TO SIGN, DATE AND RETURN YOUR PROXY CARD TODAY!

PXY-MACK-V2