

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

SCHEDULE 14A

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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

**RHYTHM 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:

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(2) Form, Schedule or Registration Statement No.:

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(3) Filing Party:

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(4) Date Filed:

\_\_\_\_\_

**Rhythm Pharmaceuticals, Inc.**

222 Berkeley Street, 12th Floor  
Boston, MA 02116

April 27, 2021

Dear Stockholder:

On behalf of the Board of Directors of Rhythm Pharmaceuticals, Inc. (the "Company," "we" or "Rhythm"), I invite you to attend the Annual Meeting of Stockholders (the "Annual Meeting") that will be held on Wednesday, June 9, 2021, at 2:00 p.m., Eastern Time. As part of our effort to maintain a safe and healthy environment for our directors, members of management and stockholders who wish to attend the Annual Meeting, in light of the ongoing COVID-19 pandemic, we have decided to hold the Annual Meeting entirely online this year. You will be able to attend the Annual Meeting online and submit your questions during the meeting by visiting [www.meetingcenter.io/230218259](http://www.meetingcenter.io/230218259). The password for the meeting is RYTM2021. The matters to be voted upon at the Annual Meeting are listed in the Notice of Annual Meeting of Stockholders and more fully described in the proxy statement accompanying this letter (the "Proxy Statement").

All stockholders of record of our common stock at the close of business on April 15, 2021, the record date, are entitled to notice of and to vote at the Annual Meeting and any continuation, postponement, or adjournment thereof. We know that certain of our stockholders will be unable to attend the Annual Meeting electronically. We, therefore, are soliciting proxies so that each stockholder has an opportunity to vote on the matters that are scheduled to come before the stockholders at the Annual Meeting. If you have previously received our Notice of Internet Availability of Proxy Materials (the "Internet Notice"), then instructions regarding how you can vote are contained in that notice. If you have received a proxy card, then instructions regarding how you can vote are contained on the proxy card. Submitting your vote via the Internet or by telephone or proxy card will not affect your right to vote electronically if you decide to attend the Annual Meeting. If your shares are held in street name (held for your account by a broker or other nominee), you will receive instructions from your broker or other nominee explaining how to vote your shares. Whether or not you expect to attend the Annual Meeting electronically, we urge you to vote your shares as promptly as possible to ensure your representation and the presence of a quorum at the Annual Meeting. Your proxy is revocable in accordance with the procedures set forth in the Proxy Statement.

Thank you for your continuing interest in the Company.

Sincerely,

/s/ DAVID P. MEEKER, M.D.

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David P. Meeker, M.D.  
*Chairman of the Board, President and  
Chief Executive Officer*

**Rhythm Pharmaceuticals, Inc.**

222 Berkeley Street, 12th Floor  
Boston, MA 02116

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS**

The Annual Meeting of Stockholders (the "Annual Meeting") of Rhythm Pharmaceuticals, Inc. (the "Company," "we" or "Rhythm") will be held on Wednesday, June 9, 2021, at 2:00 p.m., Eastern Time. The Annual Meeting will be a completely virtual meeting, which will be conducted via live webcast. You will be able to attend the Annual Meeting online and submit your questions during the meeting by visiting [www.meetingcenter.io/230218259](http://www.meetingcenter.io/230218259) and entering your 15-digit control number included in your Notice of Internet Availability of Proxy Materials (the "Internet Notice"), on any proxy card that you received or on the instructions that accompanied your proxy materials. The password for the meeting is RYTM2021. The Annual Meeting will be held for the following purposes:

1. To elect Stuart A. Arbuckle, Christophe R. Jean and Lynn A. Tetrault, J.D. as Class I directors, each to serve for a three-year term until the 2024 Annual Meeting of Stockholders and until their respective successors are duly elected and qualified;
2. To ratify the appointment of Ernst & Young LLP as the independent registered public accounting firm for the Company for the fiscal year ending December 31, 2021;
3. To approve, on an advisory (non-binding) basis, the compensation of our named executive officers ("Say-on-Pay Vote");
4. To approve, on an advisory (non-binding) basis, the frequency of future Say-on-Pay Votes; and
5. To transact such other business as may properly come before the Annual Meeting or any continuation, postponement, or adjournment of the Annual Meeting.

The Board has fixed the close of business on April 15, 2021 as the record date for determining stockholders entitled to notice of and to vote at the Annual Meeting. Therefore, each outstanding share of Rhythm's common stock entitles the holder of record of such shares at the close of business on April 15, 2021 to receive notice of, and to vote at, the Annual Meeting or any continuation, adjournment or postponement thereof. To participate in the Annual Meeting, including to vote via the Internet or telephone, you will need the 15-digit control number included in your Internet Notice, on any proxy card that you received or on the instructions that accompanied your proxy materials. A complete list of such stockholders will be open to the examination of any stockholder for a period of ten days prior to the Annual Meeting for a purpose germane to the meeting by sending an email to David Connolly, Head of Investor Relations and Corporate Communications, at [dconnolly@rhythmtx.com](mailto:dconnolly@rhythmtx.com), stating the purpose of the request and providing proof of ownership of Company stock. The list of these stockholders will also be available on the bottom of your screen during the Annual Meeting after entering the 15-digit control number included in your Internet Notice, on any proxy card that you received or on the materials provided by your bank or broker. The Annual Meeting may be continued or adjourned from time to time without notice other than by announcement at the Annual Meeting.

**Whether or not you expect to attend the Annual Meeting electronically, we urge you to vote your shares as promptly as possible to ensure your representation and the presence of a quorum at the Annual Meeting. If you choose to attend the Annual Meeting, you may still vote your shares electronically, even if you have previously voted or returned your proxy by any of the methods described in the Proxy Statement. If your shares are held in street name in a bank or brokerage account, please refer to the materials provided by your bank, broker or other nominee for voting instructions. Your proxy is revocable in accordance with the procedures set forth in the Proxy Statement.**

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All stockholders are extended a cordial invitation to attend the meeting online.

By Order of the Board of Directors,

/s/ DAVID P. MEEKER, M.D.

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David P. Meeker, M.D.  
Chairman of the Board, *President and Chief Executive Officer*  
April 27, 2021

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**Rhythm Pharmaceuticals, Inc.**

222 Berkeley Street, 12th Floor  
Boston, MA 02116

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**PROXY STATEMENT**

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**GENERAL INFORMATION**

This proxy statement (“Proxy Statement”) is furnished in connection with the solicitation by the Board of Directors (the “Board”) of Rhythm Pharmaceuticals, Inc., a Delaware corporation (“Rhythm,” “we,” “our,” “us” or the “Company”), of proxies in the accompanying form to be used at our annual meeting of stockholders to be held on June 9, 2021 at 2:00 p.m., Eastern Time, and any continuation, postponement or adjournment thereof (the “Annual Meeting”). The Annual Meeting will be a completely virtual meeting, which will be conducted via live webcast. You will be able to attend the Annual Meeting online and submit your questions during the meeting by visiting [www.meetingcenter.io/230218259](http://www.meetingcenter.io/230218259) and entering your 15-digit control number included in your Notice of Internet Availability of Proxy Materials (the “Internet Notice”), on any proxy card you received or on the instructions that accompanied your proxy materials. The password for the meeting is RYTM2021.

Holders of record of shares of our common stock, \$0.001 par value per share, as of the close of business on April 15, 2021 (the “Record Date”), will be entitled to notice of and to vote at the Annual Meeting and any continuation, postponement, or adjournment of the Annual Meeting.

***When are this Proxy Statement and the accompanying materials scheduled to be sent to stockholders?***

This Proxy Statement and the Company’s Annual Report to Stockholders for the year ended December 31, 2020 (the “2020 Annual Report”) will be released on or about April 27, 2021 to our stockholders on the Record Date.

**Notice of Internet Availability of Proxy Materials.**

As permitted by Securities and Exchange Commission (“SEC”) rules, Rhythm is making this Proxy Statement and its 2020 Annual Report available to its stockholders electronically via the Internet. On or about April 27, 2021, we mailed to our stockholders a Notice of Internet Availability of Proxy Materials (the “Internet Notice”) containing instructions on how to access this Proxy Statement and our 2020 Annual Report and vote online. If you received an Internet Notice by mail, you will not receive a printed copy of the proxy materials in the mail unless you specifically request them, by following the instructions for requesting such materials contained on the Internet Notice.

The Internet Notice instructs you on how to access and review all of the important information contained in the Proxy Statement and 2020 Annual Report. The Internet Notice also instructs you on how you may submit your proxy over the Internet.

**Who can vote at the Annual Meeting?**

The Record Date for the Annual Meeting is April 15, 2021. You are entitled to vote at the Annual Meeting only if you were a stockholder of record at the close of business on that date, or if you hold a valid proxy for the Annual Meeting. As of the close of business on the Record Date, we had 50,201,758 shares of common stock outstanding. Each share of common stock entitles the holder to one vote on each matter presented at the Annual Meeting. There is no cumulative voting.

**Who can attend the Annual Meeting?**

As part of our effort to maintain a safe and healthy environment for our directors, members of management and stockholders who wish to attend the Annual Meeting, in light of the ongoing COVID-19

pandemic, we have decided to hold the Annual Meeting entirely online this year. You may attend the Annual Meeting online only if you are a stockholder who is entitled to vote at the Annual Meeting, or if you hold a valid proxy for the Annual Meeting. You may attend and participate in the Annual Meeting by visiting the following website: [www.meetingcenter.io/230218259](http://www.meetingcenter.io/230218259). The password for the meeting is RYTM2021. To attend and participate in the Annual Meeting, you will need the 15-digit control number included in your Internet Notice, on any proxy card you received or on the instructions that accompanied your proxy materials. If you lose your 15-digit control number, you may join the Annual Meeting as a “Guest” but you will not be able to vote, ask questions or access the list of stockholders as of the Record Date.

If your shares are held in “street name,” as described below, you must register in advance to attend the Annual Meeting online or attend the Annual Meeting online using the control number provided by your bank or broker by following the instructions found under the caption “*How do I vote?*” below. You will need to obtain your own Internet access if you choose to attend the Annual Meeting online and/or vote over the Internet.

The meeting webcast will begin promptly at 2:00 p.m. Eastern Time. We encourage you to access the meeting prior to the start time, leaving ample time for check-in procedures.

#### **What is the difference between a stockholder of record and beneficial owner of shares held in “street name”?**

*Stockholder of Record.* If your shares are registered directly in your name with our transfer agent, Computershare Trust Company, N.A. (“Computershare”), you are considered the stockholder of record with respect to those shares, and the Notice of Annual Meeting and Proxy Statement were sent directly to you by the Company.

*Beneficial Owner of Shares Held in “Street Name.”* If your shares are held in an account at a brokerage firm, bank, broker-dealer, or other similar organization, then you are the beneficial owner of shares held in “street name,” and the Notice and Proxy Statement were forwarded to you by that organization. The organization holding your account is considered the stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct that organization on how to vote the shares held in your account.

#### **How do I vote?**

*Stockholders of Record.* If you are a stockholder of record, you may vote:

- **By Internet.** You may vote by proxy via the Internet at [www.investorvote.com/RYTM](http://www.investorvote.com/RYTM) by following the instructions provided on the Internet Notice or any proxy card you received.
- **By Telephone.** If you live in the United States or Canada, you may vote by proxy by calling toll-free 1-800-652-VOTE (8683) and by following the instructions provided on the Internet Notice or any proxy card you received. You must have the control number that is included on the Internet Notice or proxy card when voting.
- **By Mail.** Complete and mail any proxy card you may have received in the accompanying postage prepaid envelope, and return the proxy card to Computershare Proxy Services, P.O. Box 505000, Louisville, KY, 40233. Your proxy will be voted in accordance with your instructions. If you have received printed copies of these proxy materials and sign and return the enclosed proxy but do not otherwise specify how you want your shares voted, they will be voted “**FOR**” the election of the Class I director nominees named herein to the Board, “**FOR**” the ratification of the selection of Ernst & Young LLP as Rhythm’s independent registered public accounting firm for the fiscal year ending December 31, 2021, “**FOR**” the approval, on an advisory basis, of the compensation of our named executive officers (the “Say-on-Pay Vote”) and “**ONE YEAR**” for the frequency of the Say-on-Pay Vote, and will be voted according to the discretion of the proxy holder named in the proxy card upon any other business that may properly be brought before the meeting and at all continuations, adjournments and postponements thereof.
- **Electronically at the Meeting.** If you attend the meeting online, you will need the 15-digit control number included in your Internet Notice or any proxy card you received or on the instructions that accompanied your proxy materials to vote electronically during the meeting.

Whether or not you expect to attend the Annual Meeting electronically, we urge you to vote your shares as promptly as possible to ensure your representation and the presence of a quorum at the Annual Meeting. If you submit your proxy, you may still decide to attend the Annual Meeting and vote your shares electronically.

*Beneficial Owners of Shares Held in “Street Name.”* If your shares are held in a brokerage account, by a bank, by a trustee, or by another nominee (also referred to as held in “street name”), you may:

- **Vote in Advance.** You may vote in advance of the Annual Meeting by following the voting instructions provided by your broker or other nominee and, if desired, attend the Annual Meeting webcast as a “Guest.” Most brokers or other nominees permit their customers to vote by telephone or by Internet, in addition to voting by signing, dating and returning the voting instruction form provided by the broker or other nominee.
- **Register to Attend the Annual Meeting in Advance.** You may register to attend the Annual Meeting webcast as a stockholder in advance (allowing you to both vote and ask questions during the Annual Meeting). To register to attend the Annual Meeting online in advance, you must submit proof of your proxy power (legal proxy) reflecting your holdings in the Company along with your name and email address to Computershare. Requests for registration must be labeled as “Legal Proxy” and be received no later than 5:00 p.m., Eastern daylight time, on June 4, 2021. You will receive a confirmation of your registration by email after Computershare receives your registration materials. Requests for registration should be directed to Computershare in the following manner: (1) by email: Forward the email from your broker, or attach an image of your legal proxy, to [legalproxy@computershare.com](mailto:legalproxy@computershare.com); or (2) by mail: Computershare, Rhythm Therapeutics, Inc. Legal Proxy, P.O. Box 43001, Providence, RI 02940-3001.
- **Attend the Annual Meeting Using a Control Number.** We expect that the vast majority of beneficial holders will be able to attend and participate in the Annual Meeting by logging into the Annual Meeting using the control number received with the voting instruction form provided by your broker or other nominee. However, some beneficial holders may need to request a legal proxy and register in advance of the Annual Meeting pursuant to the instructions above under “Register to Attend the Annual Meeting in Advance.” Please contact your broker or other nominee to confirm whether your control number will allow you to access the Annual Meeting or whether you will need to obtain a legal proxy and register in advance.

You will need to obtain your own Internet access if you choose to attend the Annual Meeting online and/or vote over the Internet.

#### **What are the Board’s recommendations on how to vote my shares?**

The Board recommends a vote:

- *Proposal 1:* “**FOR**” the election of each of Stuart A. Arbuckle, Christophe R. Jean and Lynn A. Tetrault, J.D. as Class I directors.
- *Proposal 2:* “**FOR**” the ratification of the selection of Ernst & Young LLP as Rhythm’s independent registered public accounting firm for the fiscal year ending December 31, 2021.
- *Proposal 3:* “**FOR**” the approval, on an advisory basis, of the Say-on-Pay Vote.
- *Proposal 4:* “**ONE YEAR**” for the frequency of future Say-on-Pay Votes.

#### **Who pays the cost for soliciting proxies?**

Rhythm will bear the cost of solicitation of proxies. This includes the charges and expenses of brokerage firms and others for forwarding solicitation material to beneficial owners of our outstanding common stock. Rhythm may solicit proxies by mail, personal interview, telephone or via the Internet through its officers, directors and other management employees, who will receive no additional compensation for their services. We will also request that brokers, nominees, custodians and other fiduciaries forward soliciting materials to the beneficial owners of shares held by the brokers, nominees, custodians and other fiduciaries. We will reimburse these persons for their reasonable expenses in connection with these activities.



**Can I change or revoke my vote?**

You may revoke your proxy at any time before it is voted by notifying the Secretary of Rhythm in writing at our principal executive offices, by returning a signed proxy with a later date, by transmitting a subsequent vote over the Internet or by telephone prior to the close of the Internet voting facility or the telephone voting facility, or by attending the meeting and voting electronically. If your stock is held in street name, you must contact your broker or nominee for instructions as to how to change or revoke your vote.

**How is a quorum reached?**

The presence, online or by proxy, of holders of at least a majority of the issued and outstanding shares entitled to vote is necessary to constitute a quorum for the transaction of business at the Annual Meeting. Abstentions and “broker non-votes,” if any, will be counted as present and entitled to vote for purposes of determining whether a quorum is present for the transaction of business at the meeting.

**What are broker non-votes?**

“Broker non-votes” are shares represented at the Annual Meeting held by brokers, banks or other nominees (i.e., in “street name”) which do not vote on a particular proposal because the nominee does not have discretionary voting power with respect to that item and has not received instructions from the beneficial owner. Generally, nominees may vote to ratify the selection of independent auditors and on other “discretionary” or “routine” items. In contrast, nominees may not vote to elect directors, because those proposals are considered “non-discretionary” items. Accordingly, if you do not instruct your broker, bank or other nominee how to vote your shares on “non-discretionary” matters, your broker, bank or other nominee will not be permitted to vote your shares on these matters. This is a “broker non-vote.”

**What vote is required to approve each item?**

*Election of Directors (Proposal No. 1).* Directors will be elected by a plurality of the votes cast, present online or represented by proxy at the Annual Meeting and entitled to vote on the election of directors. This means that the three individuals receiving the highest number of “FOR” votes will be elected as directors. Abstentions and broker non-votes will not be treated as votes cast for this purpose and, therefore, will not affect the outcome of the election.

*Ratification of the Selection of Independent Registered Public Accounting Firm (Proposal No. 2).* The affirmative vote of a majority of shares of our common stock, present online or represented by proxy at the Annual Meeting and entitled to vote, is required to ratify the selection of our independent auditors. An abstention is treated as present and entitled to vote and, therefore, has the effect of a vote “against” the proposal. Because the ratification of the selection of the independent auditors is a routine matter, a nominee holding shares in street name may vote on this proposal in the absence of instructions from the beneficial owner and, therefore, we do not expect any broker non-votes on this proposal.

*Approval, on an Advisory (Non-Binding) Basis, of the Compensation of Our Named Executive Officers (“Say-on-Pay Vote”) (Proposal No. 3).* The affirmative vote of a majority of shares of our common stock, present online or represented by proxy at the Annual Meeting and entitled to vote, is required to approve the compensation of our named executive officers. An abstention is treated as present and entitled to vote and, therefore, has the effect of a vote “against” the proposal. Broker non-votes will have no effect on the outcome of the vote on this proposal.

*Approval, on an Advisory (Non-Binding) Basis, of the Frequency of Future Say-on-Pay Votes (Proposal No. 4).* The affirmative vote of a majority of shares of our common stock, present online or represented by proxy at the Annual Meeting and entitled to vote, is required to approve the frequency of future Say-on-Pay Votes. If no frequency receives the foregoing vote, we will consider the frequency (ONE YEAR, TWO YEARS or THREE YEARS) that receives the highest number of votes cast to be the frequency recommended by stockholders. An abstention is treated as present and entitled to vote and, therefore, has the effect of a vote “against” the proposal. Broker non-votes will have no effect on the outcome of the vote on this proposal.

If the Annual Meeting is adjourned or postponed for any purpose, at any subsequent reconvening of the meeting, your proxy will be voted in the same manner as it would have been voted at the original convening of the Annual Meeting unless you withdraw or revoke your proxy.

**What if a quorum is not present at the Annual Meeting?**

If a quorum is not present or represented at the scheduled time of the Annual Meeting, the presiding officer of the Annual Meeting may adjourn the Annual Meeting without notice other than announcement at the meeting.

**Could other matters be decided at the Annual Meeting?**

Stockholders at an annual meeting will only be able to consider proposals or nominations specified in the Notice of Annual Meeting or brought before the meeting by or at the direction of our Board or by a stockholder of record on the Record Date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our Corporate Secretary of the stockholder's intention to bring such business before the meeting. As of the date of this Proxy Statement, Rhythm does not know of any other matters that may be presented for action at the Annual Meeting. Should any other business properly come before the meeting, the persons named on the enclosed proxy will have discretionary authority to vote the shares represented by such proxies in accordance with their best judgment to the same extent as the person signing the proxy would be entitled to vote. If you hold your shares through a broker, bank or other nominee as described above, the broker, bank or other nominee will not be able to vote your shares on any other business that comes before the Annual Meeting unless they receive instructions from you with respect to such matter.

**Why hold a virtual meeting?**

As part of our effort to maintain a safe and healthy environment for our directors, members of management and stockholders who wish to attend the Annual Meeting, in light of the ongoing COVID-19 pandemic, we believe that hosting a virtual meeting this year is in the best interest of the Company and its stockholders. A virtual meeting also enables increased stockholder attendance and participation because stockholders can participate from any location around the world. You will be able to attend the Annual Meeting online and submit your questions by visiting [www.meetingcenter.io/230218259](http://www.meetingcenter.io/230218259). The password for the meeting is RYTM2021. You also will be able to vote your shares electronically at the Annual Meeting by following the instructions above.

**What if during the check-in time or during the Annual Meeting I have technical difficulties or trouble accessing the virtual meeting website?**

We will have technicians ready to assist you with any technical difficulties you may have accessing the virtual meeting website, and the information for assistance will be located at the following website: [support.vevent.com](http://support.vevent.com).

**Will there be a question and answer session during the Annual Meeting?**

As part of the Annual Meeting, we will hold a live Q&A session, during which we intend to answer questions submitted online during the meeting that are pertinent to the Company and the meeting matters, as time permits. Only stockholders that have accessed the Annual Meeting as a stockholder (rather than a "Guest") by following the procedures outlined above in "Who can attend the Annual Meeting?" will be permitted to submit questions during the Annual Meeting. Each stockholder is limited to no more than two questions. Questions should be succinct and only cover a single topic. We will not address questions that are, among other things:

- irrelevant to the business of the Company or to the business of the Annual Meeting;
- related to material non-public information of the Company, including the status or results of our business since our last Quarterly Report on Form 10-Q;
- related to any pending, threatened or ongoing litigation;
- related to personal grievances;
- derogatory references to individuals or that are otherwise in bad taste;
- substantially repetitious of questions already made by another stockholder;

- in excess of the two question limit;
- in furtherance of the stockholder’s personal or business interests; or
- out of order or not otherwise suitable for the conduct of the Annual Meeting as determined by the Chair or Secretary in their reasonable judgment.

Additional information regarding the Q&A session will be available in the “Rules of Conduct” available on the Annual Meeting webpage for stockholders that have accessed the Annual Meeting as a stockholder (rather than a “Guest”) by following the procedures outlined above in “Who can attend the Annual Meeting?”.

**What happens if the meeting is continued, postponed or adjourned?**

Your proxy may be voted at the continued, postponed or adjourned meeting. You will still be able to change your proxy until it is voted.

**What does it mean if I receive more than one Internet Notice, proxy card or voting instruction form?**

It means that you have multiple accounts at the transfer agent or with brokers. Please complete and return all proxy cards or voting instruction forms to ensure that all of your shares are voted.

**Where can I find the voting results of the meeting?**

The preliminary voting results will be announced at the Annual Meeting. The final results will be disclosed in a Current Report on Form 8-K within four business days after the Annual Meeting date.

**IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE  
2021 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JUNE 9, 2021**

**The Notice of Annual Meeting of Stockholders, this Proxy Statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 are available free of charge at [www.edocumentview.com/RYTM](http://www.edocumentview.com/RYTM) or [www.rhythmtx.com](http://www.rhythmtx.com) under “Investors & Media” at “SEC Filings.”**

**PROPOSAL NO. 1—ELECTION OF DIRECTORS**

In accordance with Rhythm’s certificate of incorporation and bylaws, each as currently amended and in effect, the Board is divided into three classes of directors of approximately equal size. The members of each class of directors are elected to serve a three-year term with the term of office of each class ending in successive years. Stuart A. Arbuckle, Christophe R. Jean and Lynn A. Tetrault, J.D. are the Class I directors whose terms expire at the Annual Meeting. Each of Stuart A. Arbuckle, Christophe R. Jean and Lynn A. Tetrault, J.D. has been nominated for, and has agreed to stand for, election to the Board to serve as a Class I director of Rhythm for three years until the 2024 Annual Meeting of Stockholders and until his successor is duly elected and qualified or until his earlier death, incapacity, resignation or removal.

It is intended that, unless you give contrary instructions, shares represented by proxies will be voted for the election of each of the three nominees listed above as director nominees. Rhythm has no reason to believe that any nominee will be unable to serve. In the event that one or more nominees is unexpectedly not available to serve, proxies may be voted for another person nominated as a substitute by the Board, or the Board may reduce the number of directors to be elected at the Annual Meeting. Proxies cannot be voted for a greater number of persons than the number of nominees named in this proposal. Information relating to each nominee for election as director and for each continuing director, including his or her period of service as a director of Rhythm, principal occupation and other biographical material, is included under “Director Biographies” below.

**Vote Required**

A plurality of the votes cast at the meeting will be required for the election of the Class I director nominees. The three nominees for director with the highest number of affirmative votes will be elected as directors. Broker non-votes and abstentions will not be treated as votes cast for this purpose and, therefore, will not affect the outcome of the election.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE “FOR”  
EACH OF THE CLASS I DIRECTOR NOMINEES NAMED IN THIS PROXY STATEMENT.**

**(PROPOSAL NO. 1)**

## BOARD OF DIRECTORS

### Board Composition and Structure

Our certificate of incorporation and bylaws, each as currently amended and in effect, state that our Board shall consist of a number of directors that shall be fixed exclusively by the Board from time to time in accordance with the bylaws of the Company. Each director holds office until his or her successor is duly elected and qualified or until his or her death, incapacity, resignation or removal. Our certificate of incorporation provides that our directors may be removed only for cause by the affirmative vote of the holders of at least 75% of the voting power of the outstanding shares of capital stock of Rhythm entitled to vote in the election of directors, voting together as a single class, at a meeting of the stockholders called for that purpose. Any vacancy in the Board, including a vacancy that results from an increase in the number of directors, may be filled only by the vote of a majority of the remaining directors then in office, although less than a quorum, or by the sole remaining director.

Our certificate of incorporation, as currently amended and in effect, provides that our Board is divided into three classes of directors, with the classes as nearly equal in number as possible. Each of our directors identified below serves in the class indicated. Subject to any earlier resignation or removal in accordance with the terms of our certificate of incorporation and bylaws, our current Class I directors, if elected at the Annual Meeting, will serve until the 2024 Annual Meeting of Stockholders; our current Class II directors will serve until the 2022 Annual Meeting of Stockholders; and our current Class III directors will serve until the 2023 Annual Meeting of Stockholders. Any additional directorships resulting from an increase in the number of directors will be apportioned by our Board among the three classes as equally as possible.

The current size of our Board is fixed at nine directors. Todd Foley has resigned from our Board, effective as of the conclusion of the Annual Meeting. Our Board intends to approve a reduction in its size from nine to eight directors, effective upon the effectiveness of Mr. Foley's resignation.

Below is a list of the names, ages as of April 27, 2021 and classification of the individuals who currently serve as our directors, three of whom are also nominees to be re-elected at the Annual Meeting.

| Name                          | Age | Position(s)                     | Class | Term Expires |
|-------------------------------|-----|---------------------------------|-------|--------------|
| Stuart A. Arbuckle(1)(2)      | 55  | Director                        | I     | 2024         |
| Camille L. Bedrosian, M.D.(3) | 68  | Director                        | III   | 2023         |
| Todd Foley(1)*                | 49  | Director                        | II    | 2022         |
| Jennifer Good                 | 56  | Director                        | II    | 2022         |
| Christophe R. Jean(2)         | 65  | Director                        | I     | 2024         |
| Edward T. Mathers(3)          | 61  | Lead Director                   | II    | 2022         |
| David W. J. McGirr(2)(3)      | 66  | Director                        | III   | 2023         |
| David P. Meeker, M.D.         | 66  | Director, Chairman of the Board | III   | 2023         |
| Lynn A. Tetrault, J.D.(1)     | 58  | Director                        | I     | 2024         |

(1) Member of the Compensation Committee.

(2) Member of the Audit Committee.

(3) Member of the Governance and Nominating Committee.

\* Mr. Foley has resigned from our Board, effective as of the conclusion of the Annual Meeting.

In consultation with the Governance and Nominating Committee, the Board has determined that the classified board structure remains appropriate for us at this time. A classified board provides for stability, continuity and experience among our Board. Further, the Board believes that building a cohesive board is an important goal. In our industry in particular, long-term focus is critical. The time horizon required for successful development of pharmaceuticals makes it vital that we have a board that understands the implications of this process and has the ability to develop and implement long-term strategies while benefiting

from an in-depth knowledge of Rhythm's business and operations. A classified board structure helps to ensure that there will be the continuity and stability of leadership required to navigate a challenging economic environment while resisting the pressure to focus on short-term results at the expense of our long-term value and success. The future success of Rhythm depends in significant part on the ability to attract and retain capable and experienced directors. In this regard, we believe that longer terms for our directors will enhance director independence from both management and stockholder special interest groups.

### **Director Biographies**

Information concerning our continuing directors and director nominees is set forth below. The biographical description of each continuing director and director nominee includes the specific experience, qualifications, attributes and skills that led the Board to conclude that such person should serve as a director.

#### ***Class I Directors (Nominees Standing for Re-Election)***

##### ***Stuart A. Arbuckle***

Mr. Arbuckle has served as a member of our Board since July 2019. He currently serves as Executive Vice President and Chief Commercial and Operations Officer at Vertex Pharmaceuticals Incorporated, a biopharmaceutical company, a role he has held since March 21, where he is responsible for the company's reimbursement and access, sales, marketing, patient support, market research, commercial manufacturing, supply chain and other activities that support the approved use of Vertex's cystic fibrosis medicines. Mr. Arbuckle also oversees the Human Resources and Corporate Communications functions. Prior to assuming his current role, he served as Executive Vice President and Chief Commercial Officer at Vertex from September 2012 to March 2021. Prior to joining Vertex, Mr. Arbuckle held several commercial leadership positions at Amgen Inc., including leading sales and marketing efforts for Amgen Inc.'s portfolio of cancer medicines, such as Aranesp®, Neulasta® injection and NEUPOGEN®, and leading the successful launches of XGEVA® injection and Nplate® injection. Most recently, he served as Vice President and Regional General Manager at Amgen Inc., where he led efforts to expand the company's presence in Asia, the Middle East, and Africa. Prior to these roles, Mr. Arbuckle spent 15 years at GlaxoSmithKline plc, where he held sales and marketing roles for medicines aimed at treating metabolic, respiratory, musculoskeletal, cardiovascular and other diseases. Mr. Arbuckle currently serves as a board member of ImmunoGen, Inc. Mr. Arbuckle holds a B.S. in Pharmacology and Physiology from the University of Leeds in the United Kingdom.

The Board considered Mr. Arbuckle's senior executive roles at publicly-held life sciences companies, as well as his service on the boards of directors of biotechnology companies and organizations, in concluding that he is qualified to serve as a director.

##### ***Christophe R. Jean***

Mr. Jean has served as a member of our Board since 2015. He is currently a Strategic Advisor for Oraxys S.A., a private equity firm, a role he has held since June 2019. Mr. Jean also served as a Senior Advisor for JSB Partners, LLC, a specialized biotechnology and pharmaceutical investment banking and advisory services firm, from November 2018 until December 2019. Previously, Mr. Jean served as Executive Vice President of Corporate Strategy, Business Development, Alliances and M&A for Ipsen S.A., a pharmaceutical company, from 2013 until his retirement in July 2018, after serving for 11 years in the position of Executive Vice President, Chief Operating Officer, with responsibility for all commercial operations and medical affairs worldwide as well as Ipsen S.A.'s therapeutic area franchises. Prior to joining Ipsen S.A., Mr. Jean was President and CEO for the pharmaceutical activities of the Pierre Fabre Group and President of Europe, Middle East, and Africa for Novartis Pharma AG's Pharmaceutical Division. Prior to the merger of Ciba-Geigy AG and Sandoz Inc. that formed Novartis Pharma AG, he held a number of marketing and management positions in Europe and Latin America for Ciba-Geigy AG, culminating as Head of Finance and IT Worldwide and Member of the Pharma Executive Committee. Mr. Jean also serves on the boards of directors of multiple private companies. He holds an M.B.A. from Harvard Business School.

The Board considered Mr. Jean's international business experience and executive leadership at several of the world's leading pharmaceutical companies and his long career in commercial leadership roles in

concluding that he is qualified to serve as a director. The Board also considered Mr. Jean's extensive experience in commercializing therapeutics outside of the United States.

***Lynn A. Tetrault, J.D.***

Ms. Tetrault has served as a member of our Board since December 2020. Ms. Tetrault currently serves as a board member and Lead Independent Director of NeoGenomics, Inc. Ms. Tetrault spent over 21 years at AstraZeneca PLC, serving in a variety of senior positions, including most recently as EVP of Human Resources and Corporate Affairs from May 2007 to March 2014. In May 2017, Ms. Tetrault founded Anahata Leadership, Inc., an advisory firm focused on supporting the leadership and development of executive women, and continues to serve as a principal. Ms. Tetrault also is a Fellow of Simmons University's Institute for Inclusive Leadership and is a Director of Paradigm for Parity, a non-profit organization whose mission is to close the gender parity gap in corporate leadership by 2030. Ms. Tetrault began her career as a lawyer in private healthcare practice in Boston. Ms. Tetrault holds a B.A. from Princeton University and a J.D. from the University of Virginia.

In connection with her nomination to the Board, the Board considered Ms. Tetrault's significant experience as a senior executive at a global biopharmaceutical company and her strong background in executive leadership.

***Continuing Directors Not Standing for Re-Election at the 2021 Annual Meeting***

***Camille L. Bedrosian, M.D.***

Dr. Bedrosian has served as a member of our Board since December 2020. Since January 2018, Dr. Bedrosian has served as Executive Vice President and Chief Medical Officer at Ultragenyx Pharmaceutical, a rare disease company with a diverse portfolio of approved therapies and product candidates, where she provides strategic leadership to the clinical development and translational research programs and oversees Medical Affairs, Global Development, Clinical Operations and Drug Safety. Previously, Dr. Bedrosian served as Senior Vice President and Chief Medical Officer at Alexion Pharmaceuticals, Inc., a biopharmaceutical company, from May 2008 to December 2017, where she provided leadership for the development of drugs and drug candidates including those designed to address devastating rare diseases such as Soliris(r) (eculizumab). Prior to this, she served as Chief Medical Officer at ARIAD Pharmaceuticals, as well as in the Clinical Research and Development Department of Genetics Institute, Inc. Before transitioning to the biotechnology industry, Dr. Bedrosian was an Assistant Professor of Medicine at Duke University Medical Center where she was a member of the Duke Comprehensive Cancer Center. Dr. Bedrosian holds an A.B. from Harvard University, M.D. from Harvard Medical School, and M.S. in Biophysics from the Massachusetts Institute of Technology.

The Board considered Dr. Bedrosian's scientific expertise and extensive experience serving as a Chief Medical Officer at companies engaged in the development of drugs for the treatment of rare diseases in concluding that she is qualified to serve as a director.

***Todd Foley***

Mr. Foley has served as a member of our Board since 2014. Mr. Foley is a managing director with MPM Capital, a venture capital firm. Mr. Foley joined MPM Capital in 1999. Prior to joining MPM Capital, Mr. Foley worked in business development at Genentech, Inc. and in management consulting with Arthur D. Little, Inc. Mr. Foley currently serves as a member of the board of directors of Chiasma, Inc. and Repare Therapeutics Inc. Mr. Foley also serves on the boards of directors of numerous private companies. Mr. Foley received a B.S. in chemistry from the Massachusetts Institute of Technology and an M.B.A. from Harvard Business School.

The Board considered Mr. Foley's broad experience in the life sciences industry, including his management and consulting roles, his tenure as a venture capitalist, as well as his service on the boards of directors of numerous companies, in concluding that he is qualified to serve as a director. The Board also noted that Mr. Foley has extensive experience with emerging therapeutic modalities.

***Jennifer Good***

Ms. Good has served as a member of our Board since June 2019. She is a co-founder of Trevi Therapeutics, Inc., a clinical-stage biopharmaceutical company, and has served as a member of the board of directors and as the President and Chief Executive Officer of Trevi Therapeutics, Inc. since its inception in 2011. Previously, Ms. Good served at Penwest Pharmaceuticals Co. from 1997 to 2010, where she held various positions including President and Chief Executive Officer, Chief Operating Officer and Chief Financial Officer. Ms. Good served on the board of Juniper Pharmaceuticals, Inc. from September 2017 until it was acquired by Catalent, Inc. in August 2018. Ms. Good received a Bachelor of Business Administration degree with a concentration in accounting from Pacific Lutheran University in 1987 and is a Certified Public Accountant (inactive).

The Board considered the role Ms. Good played in the founding and growth of Trevi Therapeutics, Inc. and her senior executive roles at publicly traded life sciences companies, as well as her service on the boards of directors of biotechnology companies and organizations, in concluding that she is qualified to serve as a director.

***Edward T. Mathers***

Mr. Mathers has served as a member of our Board since 2013 and as Lead Director since December 2020. He has been a Partner at New Enterprise Associates, a venture capital firm, since 2008, and has also served as General Partner since October 2019. Mr. Mathers currently serves on the boards of directors of Akouos, Inc., Inozyme Pharma, Inc., ObsEva SA, Trevi Therapeutics, Inc., Mirum Pharmaceuticals, Inc., and Synlogic, Inc. Mr. Mathers also serves on the boards of directors of numerous private companies. Mr. Mathers previously served on the board of directors of Ra Pharmaceuticals, Inc. until its acquisition by UCB in April 2020 and Liquidia Technologies, Inc. until May 2019. Prior to joining New Enterprise Associates, Mr. Mathers served in various corporate development roles at MedImmune, Inc., a biotechnology company that was acquired by AstraZeneca PLC in 2007, culminating in the position of Executive Vice President, Corporate Development and Venture. In this role, he also led the company's venture capital subsidiary, MedImmune Ventures, Inc. Prior to that, Mr. Mathers was Vice President, Marketing and Corporate Licensing and Acquisitions at Inhale Therapeutic Systems, Inc., a biopharmaceutical company, which is now known as Nektar Therapeutics, Inc. Previously, for 15 years, Mr. Mathers was at Glaxo Wellcome, Inc., where he held sales and marketing positions of increasing responsibility. Mr. Mathers received a B.S. in chemistry from North Carolina State University.

The Board considered Mr. Mathers' senior executive roles in publicly traded life sciences companies, his extensive experience as a venture capitalist, as well as his service on the boards of directors of numerous biotechnology companies, in concluding that he is qualified to serve as a director.

***David W.J. McGirr***

Mr. McGirr has served as a member of our Board since 2015. Mr. McGirr serves as a director of X4 Pharmaceuticals, Inc., a clinical-stage biopharmaceutical company focused on the discovery and development of novel therapeutics designed to improve immune cell trafficking to treat rare diseases and cancer, and Insmed Incorporated, a pharmaceutical company devoted to the treatment of rare diseases. Mr. McGirr previously served on the boards of directors of Menlo Therapeutics, Inc. until March 2020, Roka Bioscience until January 2018 and Relypsa Inc. until September 2016. Previously, Mr. McGirr held various roles at Cubist Pharmaceuticals, including Senior Advisor to the chief executive officer and Senior Vice President and Chief Financial Officer. Prior to joining Cubist, Mr. McGirr was the President and Chief Operating Officer of Hippo Inc., an internet technology, venture-financed company. Before that, he held roles of increasing responsibility at GAB Robins North America, Inc., a risk management company, including as Chief Executive Officer. Earlier in his career, Mr. McGirr served in various positions within the S.G. Warburg Group, ultimately as Chief Financial Officer, Chief Administrative Officer and Managing Director of S.G. Warburg & Co., Inc. Mr. McGirr received a B.Sc. in Civil Engineering from the University of Glasgow and received an M.B.A. from The Wharton School at the University of Pennsylvania. Mr. McGirr has been designated an audit committee financial expert as defined in applicable SEC rules.



In concluding that he is qualified to serve as a director, the Board considered Mr. McGirr's deep experience in corporate finance and financial reporting, as well as his knowledge, perspective and corporate governance expertise. The Board also considered that his expertise in financial and accounting matters, his prior experience as Chief Financial Officer of a leading biotechnology company, and his service on other public company boards and committees would significantly benefit the Company.

***David P. Meeker, M.D.***

Dr. Meeker has served as a member of our Board since 2015 and became Chairman of the Board in April 2017. Dr. Meeker has served as our President and Chief Executive Officer since July 2020. Previously, Dr. Meeker served as CEO of KSQ Therapeutics, Inc., a biotechnology company, from October 2017 to July 2020. From October 2011 until June 2017, Dr. Meeker served as President and CEO of Genzyme Corporation and subsequently as EVP, Head Sanofi Genzyme, a unit of Sanofi S.A., a global pharmaceutical company. Dr. Meeker oversaw the company's specialty business units—Rare Diseases, Multiple Sclerosis, Oncology and Immunology. As an Executive Vice President of Sanofi S.A., he was a member of Sanofi S.A.'s Executive Committee. Dr. Meeker joined Genzyme Corporation in 1994 as Medical Director to work on the Cystic Fibrosis Gene Therapy program. Subsequently, as Vice President, Medical Affairs, he was responsible for the development of rare disease therapies that today represent transformative and life-saving advancements in medicine for patients. Prior to Genzyme Corporation's merger with Sanofi S.A. in 2011, Dr. Meeker was Genzyme Corporation's Chief Operating Officer, responsible for its commercial organization, overseeing its business units, country management organization and global market access functions. He played an important role in the integration with Sanofi S.A. Prior to joining Genzyme Corporation, Dr. Meeker was the director of the Pulmonary Critical Care Fellowship at the Cleveland Clinic and an assistant professor of medicine at Ohio State University. Dr. Meeker is currently Chairman of the board of directors of Pharvaris GmbH and the Chairman of the board of directors of Trevi Therapeutics, Inc. He has authored more than 40 articles and multiple book chapters. Dr. Meeker received his M.D. from the University of Vermont Medical School. He completed the Advanced Management Program at Harvard Business School in 2000.

In concluding that he is qualified to serve as a director, the Board considered Dr. Meeker's deep experience as a senior executive at leading global pharmaceutical companies, including his experience serving as our President and Chief Executive Officer, and his involvement in the development and commercialization of pharmaceutical product candidates for the treatment of rare and ultra-rare diseases. The Board also considered the integral role he played in the growth of Genzyme during its period of rapid growth. The Board also noted Dr. Meeker's extensive scientific and clinical experience, both in academia and as part of one of the world's leading medical institutions.

## CORPORATE GOVERNANCE

### Director Independence

Under the rules of The Nasdaq Stock Market LLC, or Nasdaq, a majority of a listed company's board of directors must be comprised of independent directors. In addition, Nasdaq rules require that, subject to specified exceptions, each member of a listed company's audit committee and compensation committee be independent and satisfy additional independence criteria set forth in Rules 10A-3 and 10C-1, respectively, under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Under Nasdaq rules, a director will only qualify as an "independent director" if, in the opinion of that company's 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.

Based upon information requested from and provided by our directors and nominees concerning their background, employment and affiliations, including family relationships, our Board has determined, upon the recommendation of our Governance and Nominating Committee, that each of Stuart A. Arbuckle, Camille L. Bedrosian, M.D., Todd Foley, Christophe R. Jean, Edward T. Mathers, David W. J. McGirr and Lynn A. Tetrault, J.D. has no relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and is independent within the meaning of the director independence standards of Nasdaq and the Securities and Exchange Commission, or SEC. Our Board has also determined that each of the current members of our Audit Committee and our Compensation Committee as set forth in the "Board Committees" section below satisfies the heightened independence standards for such committee. In making such determination, our Board considered the relationships that each non-employee director has with Rhythm and all other facts and circumstances deemed relevant in determining their independence, including Christophe R. Jean's former role as Executive Vice President at Ipsen S.A., an entity with which we have an ongoing contractual relationship.

There are no family relationships among any of our directors, nominees or executive officers.

### Board Meetings, Attendance and Executive Sessions

The Board held eight meetings during the year ended December 31, 2020. All board members attended at least 75% of the meetings of the Board and the committees of the Board on which they served.

Executive sessions, or meetings of the independent directors, without management present, are held regularly. The independent directors met in executive session during each of the regularly scheduled Board meetings during the year ended December 31, 2020.

Rhythm encourages its directors to attend the Annual Meeting. All members of the Board then-serving attended the 2020 Annual Meeting of Stockholders.

### Board of Directors Leadership Structure

Our Corporate Governance Guidelines provide our Board with flexibility to combine or separate the positions of Chairman of the Board and Chief Executive Officer in accordance with its determination that utilizing one or the other structure would be in the best interests of our Company. At the current time, David P. Meeker, M.D., our President and Chief Executive Officer, serves as Chairman of the Board. Our Board has determined that combining the roles of Chairman of the Board and Chief Executive Officer is best for our company and our stockholders at this time because it promotes unified leadership by Dr. Meeker and allows for a single, clear focus for management to execute the Company's strategy and business plans. If the Chairman of the Board is a member of management or does not otherwise qualify as independent, our Corporate Governance Guidelines provide for the appointment by the independent directors of a Lead Director. The independent directors have appointed Edward T. Mathers as the Lead Director. The Lead Director's responsibilities include, but are not limited to, presiding over all meetings of the Board of Directors at which the Chairman of the Board is not present, including any executive sessions of the independent directors, and acting as liaison between the independent directors of the Board and the Chief Executive Officer and the Chairman of the Board. Our Board is comprised of individuals with extensive experience with the biotechnology and pharmaceutical industries and a majority of our directors meet the independence

standards of Nasdaq. For these reasons and because of the strong leadership of Dr. Meecker as Chairman of the Board and Chief Executive Officer and the counterbalancing role of the Lead Director, our Board has concluded that our current leadership structure is appropriate at this time. However, our Board will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

#### **Board of Directors' Role in Risk Oversight**

The Audit Committee of the Board is primarily responsible for overseeing our risk management processes on behalf of the Board. The Audit Committee receives reports from management regarding our assessment of risks. In addition, the Audit Committee reports regularly to the Board, which also considers our risk profile. The Audit Committee and the Board focus on the most significant risks we face and our general risk management strategies, including business continuity risks, such as risks relating to the COVID-19 pandemic, and our major financial and cybersecurity risk exposures and the steps our management has taken to monitor and control these exposures. The Audit Committee and the Board also monitor compliance with legal and regulatory requirements. In addition, our Compensation Committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking, and the Governance and Nominating Committee oversees risks associated with the independence of the Board and also considers and approves or disapproves any related person transactions and monitors the effectiveness of our corporate governance guidelines.

While the Board oversees our risk management, management is responsible for day-to-day risk management processes. Our Board expects management to consider risk and risk management in each business decision, to proactively develop and monitor risk management strategies and processes for day-to-day activities and to effectively implement risk management strategies adopted by the Audit Committee and the Board. Management discusses strategic and operational risks at regular management meetings and conducts specific strategic planning and review sessions during the year that include a focused discussion and analysis of the risks facing us. Throughout the year, senior management reviews these risks with the Board of Directors at regular Board meetings as part of management presentations that focus on particular business functions, operations or strategies, and presents the steps taken by management to mitigate or eliminate such risks. We believe this division of responsibilities is the most effective approach for addressing the risks we face and that the leadership structure of our Board, which also emphasizes the independence of the Board in its oversight of its business and affairs, supports this approach.

#### **Board Committees**

Our Board has established the following standing committees: an Audit Committee, a Compensation Committee, and a Governance and Nominating Committee. The composition and responsibilities of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our Board. Each of the Audit Committee, Compensation Committee and Governance and Nominating Committee operates pursuant to a written charter and each committee reviews and assesses the adequacy of its charter annually and recommends any proposed changes to the Board for approval. The charters for the Audit Committee, Compensation Committee, and Governance and Nominating Committee are all available on our website at [www.rhythmtx.com](http://www.rhythmtx.com) under "Investors & Media" at "Corporate Governance."

The following table describes which directors serve on each of the Board committees.

| Name:                      | Governance and<br>Nominating<br>Committee | Compensation<br>Committee | Audit<br>Committee |
|----------------------------|---|---------------------------|--------------------|
| Stuart A. Arbuckle         |   | X                         | X                  |
| Camille L. Bedrosian, M.D. | X   |                           |                    |
| Todd Foley#                |   | X                         |                    |
| Jennifer Good              |   |                           |                    |
| Christophe R. Jean         |   |                           | X                  |
| Edward T. Mathers          | X*  |                           |                    |
| David W. J. McGirr         | X   |                           | X*                 |
| Lynn A. Tetrault, J.D.     |   | X*                        |                    |

\* Denotes chair of committee.

# Mr. Foley has resigned from our Board, effective as of the conclusion of the Annual Meeting.

#### ***Audit Committee***

Our Audit Committee provides oversight of our accounting and financial reporting process, the audit of our financial statements and our internal control function. Among other matters, the Audit Committee is responsible for the following: assisting the Board in oversight of the independent auditors' qualifications, independence and performance; the engagement, retention and compensation of the independent auditors; reviewing the scope of the annual audit; reviewing and discussing with management and the independent auditors the results of the annual audit and the review of our quarterly financial statements, including the disclosures in our annual and quarterly reports filed with the SEC; reviewing our risk assessment and risk management processes; establishing procedures for receiving, retaining and investigating complaints received by us regarding accounting, internal accounting controls or audit matters; and approving audit and permissible non-audit services provided by our independent auditor.

The current members of our Audit Committee are David W.J. McGirr, who is the chair of the Audit Committee, Stuart Arbuckle and Christophe R. Jean. All members of our Audit Committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and Nasdaq. Our Board has determined that Mr. McGirr is an audit committee financial expert as defined under SEC rules and has the requisite financial sophistication under applicable rules and regulations of Nasdaq as a result of, among other things, his senior-level executive experience, including his service as Chief Financial Officer of Cubist Pharmaceuticals, Inc. from November 2002 to March 2013. All of the members of our Audit Committee are independent directors as defined under the applicable rules and regulations of the SEC and Nasdaq.

During the year ended December 31, 2020, the Audit Committee met four times. The report of the Audit Committee is included in this Proxy Statement under "Audit Committee Report."

#### ***Compensation Committee***

Our Compensation Committee adopts and administers the compensation policies, plans and benefit programs for our executive officers and all other members of our executive team. Our Compensation Committee is also responsible for making recommendations to the full Board regarding non-employee director compensation. In addition, among other things, our Compensation Committee evaluates annually, in consultation with the Board, the performance of our chief executive officer, reviews and approves corporate goals and objectives relevant to compensation of our chief executive officer and other executives and evaluates the performance of these executives in light of those goals and objectives. Although our chief executive officer does not participate in decisions involving his own compensation, his recommendations and input, along with input from other executive officers, are often taken into consideration by the Compensation Committee when making compensation decisions.

Our Compensation Committee also administers our equity compensation plans, including approving, or recommending to our Board for approval, issuances of stock options and other awards under such plans. The Compensation Committee may delegate its authority under its charter to one or more subcommittees as it deems appropriate from time to time as further described in its charter. The Compensation Committee may also delegate, or recommend to our Board that it delegate, to our chief executive officer the authority to approve equity awards under our equity plans, as further described in its charter and to the extent permitted under our equity plans.

The Compensation Committee has the authority to retain or obtain the advice of compensation consultants, legal counsel and other advisors to assist in carrying out its responsibilities. For discussion of the role of compensation consultants in determining executive and non-employee director compensation, please refer to “Executive Compensation” and “Director Compensation” below.

The current members of our Compensation Committee are Lynn A. Tetrault, J.D., who is the chair of the Compensation Committee, Stuart Arbuckle and Todd Foley. All members of our Compensation Committee are independent under applicable rules and regulations of the SEC and Nasdaq.

During the year ended December 31, 2020, the Compensation Committee met five times.

#### ***Governance and Nominating Committee***

Our Governance and Nominating Committee is responsible for, among other things, making recommendations regarding corporate governance, the composition of our Board, the identification, evaluation and nomination of director candidates and the structure and composition of committees of our Board. In addition, our Governance and Nominating Committee oversees our corporate governance guidelines, oversees our strategy, initiatives and policies concerning corporate social responsibility, including environmental, social and governance matters, reviews and assesses the adequacy of our committee charters, oversees compliance with our code of business conduct and ethics, contributes to succession planning, reviews policies and procedures with respect to any related party transactions and oversees our Board self-evaluation process.

The current members of our Governance and Nominating Committee are Edward T. Mathers, who is the chair of the Governance and Nominating Committee, Camille Bedrosian, M.D. and David W.J. McGirr. All of the members of our Governance and Nominating Committee are independent under applicable rules and regulations of Nasdaq.

During the year ended December 31, 2020, the Governance and Nominating Committee met one time.

#### **Polices Governing Director Nominations**

##### ***Director Nomination Process***

Our Board is responsible for selecting its own members. The Board delegates the selection and nomination process to the Governance and Nominating Committee, with the expectation that other members of the Board and of management will be requested to take part in the process as appropriate. The Governance and Nominating Committee makes recommendations to the Board regarding the size and composition of the Board. The Governance and Nominating Committee reviews annually with the Board the composition of the Board as a whole and recommends, if necessary, measures to be taken so that the Board reflects the appropriate balance of knowledge, experience, skills, expertise and diversity required for the Board as a whole and contains at least the minimum number of independent directors required by applicable laws and regulations. The Governance and Nominating Committee is responsible for ensuring that the composition of the Board accurately reflects the needs of Rhythm’s business and, in furtherance of this goal, for proposing the resignation of members for purposes of ensuring the appropriate members and skills. The Governance and Nominating Committee recommends, and the Board nominates, candidates to stand for election as directors.

Generally, our Governance and Nominating Committee identifies candidates for director nominees in consultation with management, through the use of search firms or other advisors, through recommendations submitted by stockholders or through such other methods as the Governance and Nominating Committee

deems to be helpful to identify candidates. Once candidates have been identified, our Governance and Nominating Committee confirms that the candidates meet all of the minimum qualifications for director nominees established by the Governance and Nominating Committee. The Governance and Nominating Committee may gather information about the candidates through interviews, detailed questionnaires, background checks or any other means that the Governance and Nominating Committee deems to be appropriate in the evaluation process. The Governance and Nominating Committee then meets as a group to discuss and evaluate the qualifications and skills of each candidate, both on an individual basis and taking into account the overall composition and needs of the Board. Based on the results of the evaluation process, the Governance and Nominating Committee recommends to the Board for approval candidates as director nominees for election to the Board. Lynn A. Tetrault, J.D., one of the Class I director nominees, was initially identified as a potential director candidate by one of our non-management directors and recommended by the Governance and Nominating Committee.

Stockholders may also recommend potential director candidates by submitting the names of the recommended individuals, together with appropriate biographical information and background materials, to the Governance and Nominating Committee, c/o Secretary, 222 Berkeley Street, 12th Floor, Boston, MA 02116. In the event there is a vacancy, and assuming that appropriate biographical and background material has been provided on a timely basis, the Governance and Nominating Committee will evaluate stockholder-recommended candidates by following substantially the same process described above, and applying substantially the same criteria set forth below under “Minimum Qualifications,” as it follows for candidates submitted by others.

To nominate a person to stand for election as a director, a stockholder must provide our Secretary with timely notice of the nomination and the notice must include the information required by Section 2.12(b) of our bylaws. Additional information regarding requirements for stockholder nominations of director candidates for next year’s annual meeting is described in this Proxy Statement under “General Matters—Stockholder Proposals and Nominations.”

#### ***Minimum Qualifications***

Our Governance and Nominating Committee will consider, among other things, the following qualifications, skills and attributes when recommending candidates for the Board’s selection as nominees for the Board and as candidates for appointment to the Board’s committees. The nominee shall have the highest personal and professional integrity, shall have demonstrated exceptional ability and judgment, and shall be most effective, in conjunction with the other members of the Board, in collectively serving the long-term interests of our stockholders. Board members should possess such attributes and experience as are necessary to provide a broad range of personal characteristics including diversity, management skills and business experience. Directors should be able to commit the requisite time for preparation and attendance at regularly scheduled Board and committee meetings, as well as be able to participate in other matters necessary to ensure that good corporate governance is practiced.

In evaluating the suitability of individual candidates (both proposed director candidates and current Board members), our Governance and Nominating Committee may consider, in addition to the minimum qualifications and other criteria for board membership approved by the Board from time to time, all facts and circumstances that it deems appropriate or advisable, including, among other things, diversity, not limited to race, gender or national origin, the skills of the proposed director candidate, his or her depth and breadth of professional experience or other background characteristics, his or her independence and the needs of the Board. Although we have no formal policy regarding board diversity, we consider diversity in our Board’s makeup, and our Governance and Nominating Committee’s priority in selecting Board members is the identification of persons who will further the interests of Rhythm through an established record of professional accomplishment, the ability to contribute positively to the collaborative culture among Board members, and professional and personal experiences and expertise relevant to our growth strategy. The Governance and Nominating Committee will consider candidates recommended by stockholders. See “Director Nomination Process” above.

#### **Stockholder Engagement and Communications**

Members of the Rhythm management team actively engaged with stockholders during 2020, consistent with our commitment to enabling open and ongoing dialogue with stockholders and potential investors. Due

to restrictions on travel and face-to-face meetings due to the COVID-19 pandemic, these meetings were primarily held via video conference. According to internal records, we participated in 240 meetings with representatives of 92 institutional stockholders or prospective investors in 2020, representing the holders of approximately 65 percent of our outstanding common stock as of February 17, 2021. In addition, members of our management team participated in 11 financial conferences or sponsored “bus” tours and executed four non-deal roadshows.

This active engagement enables us to better understand the perspectives of our stockholders. Through our active stockholder engagement, we provided regular business updates relative to the advancement of setmelanotide through clinical development, disclosures relative to clinical and safety data, U.S. and EU regulatory strategy and milestones including FDA approval of IMCIVREE, and guidance on financial resources. Our robust engagement also enables feedback channels that provide a valuable way to receive ongoing input from our stockholders.

Stockholders wishing to communicate with our Board may do so by writing to the Board or to the non-employee members of the Board as a group, at:

Rhythm Pharmaceuticals, Inc.  
222 Berkeley Street, 12th Floor  
Boston, MA 02116  
Attention: Secretary

The communication must prominently display the legend “BOARD COMMUNICATION” in order to indicate to the Secretary that it is a communication for the Board. Upon receiving such a communication, the Secretary will promptly forward the communication to the relevant individual or group to which it is addressed. Certain items that are unrelated to the Board’s duties and responsibilities may be excluded, such as spam, junk mail and mass mailings, resumes and other forms of job inquiries, surveys and business solicitations or advertisements. The Secretary will not forward any communication determined in good faith belief to be frivolous, unduly hostile, threatening, illegal or similarly unsuitable.

#### **Code of Business Conduct and Ethics and Corporate Governance Guidelines**

We have a code of business conduct and ethics that applies to all of our employees, including our executive officers and those employees responsible for financial reporting, and directors. The code of business conduct and ethics is available on our website at [www.rhythmtx.com](http://www.rhythmtx.com) under “Investors & Media” at “Corporate Governance”; or by requesting a copy, free of charge, in writing from our Secretary at Rhythm Pharmaceuticals, Inc., 222 Berkeley Street, 12th Floor, Boston, MA 02116. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding any amendment to, or waiver under, a provision of the code of business conduct and ethics, as well as Nasdaq’s requirement to disclose waivers with respect to directors and executive officers, by posting such information on our website at the address specified above within four business days following the date of such amendment or waiver.

A copy of our corporate governance guidelines may also be accessed free of charge by visiting our website at [www.rhythmtx.com](http://www.rhythmtx.com) under “Investors & Media” at “Corporate Governance” or by requesting a copy from our Secretary at our principal executive offices above.

#### **Anti-Hedging and Pledging Policy**

Pursuant to our Insider Trading Policy, we prohibit our employees and members of the Board from engaging in any hedging or monetization transactions relating to our equity securities, including through the use of financial instruments such as prepaid variable forwards contracts, equity swaps, collars and exchange funds. We also prohibit our employees and members of the Board from holding our equity securities in a margin account or otherwise pledging our equity securities as collateral for a loan.

#### **ESG Overview**

##### **Social Impact**

Rhythm believes that its core mission will have a significantly positive impact on society. Obesity is an epidemic affecting hundreds of millions of people worldwide, and current treatment approaches have



demonstrated limited long-term success for most obese patients. Addressing early-onset obesity—even among rare disease populations—confronts one of the most pernicious aspects of one of the world’s most impactful public health problems. While we are focused on a rare subset of people with severe obesity—those who suffer from early-onset, severe obesity and hyperphagia caused by certain genetic variants—we are focused on advancing the understanding of the biology and genetics of obesity, expanding genetic testing to improve diagnosis of rare genetic diseases of obesity, increasing access to therapeutics for obesity and supporting awareness and education programs to reduce the stigma often associated with obesity.

Locally, we made a charitable contribution on behalf of our employees at the conclusion of 2020. We donated a total of \$15,000 to the Boston Resiliency Fund and Life Science Cares Boston. We selected these two charities based on the results of an employee survey. The Boston Resiliency Fund was established to support residents of Boston—where we are headquartered—who are most affected by COVID-19. Life Science Cares Boston provides a platform for companies and their employees to make a difference on issues stemming from poverty in the Boston area. We also donated to the Biomedical Science Careers program, which supports minority students in their pursuit of a career in science, and the Dimock Center—a community health center serving Roxbury, a lower-income community in Boston populated primarily by Black and Latino residents.

### ***Integrating Sustainability***

In the context of being a mission-driven organization, we are incorporating our existing approach to environmental, social and governance (ESG) matters into our governance mechanisms. The Board recently amended the Nominating Committee charter and delegated to the Nominating Committee oversight responsibility with respect to our strategy, initiatives and policies concerning corporate social responsibility, including ESG matters.

### ***Response to COVID-19***

As we continue work to address the unprecedented challenges introduced by the COVID-19 pandemic, our primary focus remains on the health and safety of those who participate in our ongoing studies, as well as our employees and their families. To that end, we implemented precautionary measures to support patient well-being, ensure consistent and appropriate clinical trial conduct, and enable our ongoing studies to continue with minimal interruption. We ensured that patients enrolled in our studies continued to be able to access their study drug and be monitored as scheduled throughout the duration of the pandemic, and that COVID-19 does not delay our ability to deliver setmelanotide to people living with rare genetic diseases of obesity.

In addition, we provided our employees with the resources and flexibility to work from home. With a focus on mental health and work-life balance, we encouraged our employees to take the time needed to care for family and loved ones, as necessary, and leverage our Employee Assistance Program for confidential support. For those who wished to return to our Boston office, we instituted protocols related to limiting capacity, minimizing face-to-face interactions and instituted mandatory face coverings. In March 2021, we executed a virtual “Wellness Week,” with a series of events designed to encourage physical activity, exercise, nutrition and mental wellness. Moving forward, we are engaging with employees to evaluate the “future of the office” to provide employees with the flexibility and resources to work both in-office and remotely, collaborating effectively for the benefit of patients.

### ***Human Capital***

We believe that our future success largely depends upon our continued ability to attract and retain highly skilled employees. We emphasize a number of measures and objectives in managing our human capital assets, including, among others, employee engagement, development and training, talent acquisition and retention, employee wellness, diversity, inclusion, and compensation and pay equity. As of March 1, 2021, we had 91 employees and active recruitment efforts to grow further. Approximately 50 percent of our employees are female, including 30 percent of our vice president/senior vice president/executive level employees; and approximately 20 percent of our positions are filled by employees of minority backgrounds. We also work with consultants and contractors to provide both specific expertise and flexibility for our business needs. At the board level, three of our directors are female.



We believe that developing a diverse and inclusive culture is critical to continuing to attract and retain the top talent necessary to deliver on our growth strategy. As such, we are investing in a work environment where our employees feel inspired and included. We continue to focus on extending our diversity and inclusion initiatives across our entire workforce. In addition, we work to ensure our employees understand and embrace our commitment to our patient community and our focus on changing the paradigm for treatment of rare genetic diseases of obesity. We value our employees' courage to ask bold questions and their commitment to learning and collaboration, as each person brings a unique contribution to furthering our mission. Grounded in these guiding principles, we believe we have developed a collaborative environment where our colleagues feel respected, valued, and can contribute to their fullest potential.

## DIRECTOR COMPENSATION

We maintain a non-employee director compensation program that is intended to provide a total compensation package that enables us to attract and retain qualified and experienced individuals to serve as directors and to align our directors' interests with those of our stockholders. Our Compensation Committee periodically reviews the compensation of our non-employee directors and, as applicable, makes recommendations to the Board for its consideration of changes to our non-employee director compensation program. Our Compensation Committee compares the compensation of our Board to compensation paid to non-employee directors of similarly sized public companies. Our Compensation Committee also considers the responsibilities we ask from the members of our Board along with the amount of time required to perform those responsibilities.

Under our director compensation program, we provide our non-employee directors with cash retainers and stock options. We do not pay any compensation to our President and Chief Executive Officer in connection with his service on our Board. The compensation that we pay to our President and Chief Executive Officer is discussed in the "Executive Compensation" section of this Proxy Statement. For 2020, each non-employee director received an annual retainer fee of \$40,000 paid in arrears. In addition, in 2020 non-employee directors received the following, as applicable:

| Non-Employee Director  | Annual Fee |
|--|------------|
| Lead Director  | \$25,000   |
| Non-Executive Chair  | \$30,000   |
| Chair of the Audit Committee   | \$15,000   |
| Member of the Audit Committee (other than chair)                     | \$ 7,500   |
| Chair of the Compensation Committee                                  | \$12,000   |
| Member of the Compensation Committee (other than chair)              | \$ 6,000   |
| Chair of the Governance and Nominating Committee                     | \$ 8,000   |
| Member of the Governance and Nominating Committee (other than chair) | \$ 4,000   |

We also reimburse our non-employee directors for reasonable travel and out-of-pocket expenses incurred in connection with attending Board and committee meetings.

Under the non-employee director compensation program for 2020, each individual who is initially appointed or elected to the Board is also eligible to receive an option to purchase up to 37,000 shares of our common stock under our 2017 Equity Incentive Plan on the date he or she first becomes a non-employee director. These option grants vest annually over a three-year period from the date of grant, subject to continued service as a non-employee director through the vesting date. In addition, on the date of the annual meeting of stockholders, each continuing non-employee director who has served on the Board for a minimum of six months is eligible to receive an option grant to purchase 18,500 shares of our common stock, which will vest in full upon the earlier of the first anniversary of the date of grant or the date of the next annual meeting of stockholders. The exercise price for each of these option grants is equal to the fair market value of our common stock on the date of grant. These initial grants and annual grants are subject to approval by our Board at the time of grant.

In February 2021, upon the recommendation of the Compensation Committee and following a competitive market review prepared by Radford, the Compensation Committee's independent compensation

consultant, the Board approved amending our director compensation policy, effective January 1, 2021, to provide that each non-employee director would receive an annual retainer fee of \$45,000, as well as the additional following cash fees:

| <b>Non-Employee Director</b>   | <b>Annual Fee</b> |
|--|-------------------|
| Lead Director  | \$25,000          |
| Non-Executive Chair  | \$30,000          |
| Chair of the Audit Committee   | \$20,000          |
| Member of the Audit Committee (other than chair)                     | \$10,000          |
| Chair of the Compensation Committee                                  | \$15,000          |
| Member of the Compensation Committee (other than chair)              | \$ 7,500          |
| Chair of the Governance and Nominating Committee                     | \$10,000          |
| Member of the Governance and Nominating Committee (other than chair) | \$ 5,000          |

In addition, under the amended policy, the initial option granted to a non-employee director first joining the Board will cover 30,000 shares of our common stock, and the annual option granted to our non-employees will cover 15,000 shares of our common stock. Such changes were intended to position both the cash and equity components of our non-employee director compensation closer to the median of market.

The following table sets forth information regarding compensation earned by our non-employee directors during fiscal year 2020. Neither of Dr. Meeker nor Dr. Gottesdiener received any compensation for their service on our Board while employed as our President and Chief Executive Officer during 2020. The compensation Dr. Meeker received as a non-employee director prior to his appointment as our President and Chief Executive Officer in July 2020 are set forth in the 2020 Summary Compensation Table below.

| <b>Name</b>                | <b>Fees earned in cash \$(1)</b> | <b>Option awards \$(2)</b> | <b>Total (\$)</b> |
|----------------------------|----------------------------------|----------------------------|-------------------|
| Stuart Arbuckle            | \$49,750                         | \$235,897                  | \$285,647         |
| Camille Bedrosian, M.D.(3) | \$ —                             | \$654,841                  | \$654,841         |
| Todd Foley                 | \$49,000                         | \$235,897                  | \$284,897         |
| Jennifer Good              | \$46,000                         | \$235,897                  | \$281,897         |
| Christophe R. Jean         | \$47,500                         | \$235,897                  | \$283,397         |
| Edward T. Mathers          | \$46,000                         | \$235,897                  | \$281,897         |
| David W. J. McGirr         | \$59,000                         | \$235,897                  | \$294,897         |
| Lynn A. Tetrault (3)       | \$ —                             | \$654,841                  | \$654,841         |

- (1) Amounts represent annual cash compensation earned for services rendered by each member of the Board.
- (2) Amounts shown reflect the grant date fair value of options awarded during fiscal year 2020 determined in accordance with the Financial Accounting Standards Board, Accounting Standards Codification Topic 718, *Compensation — Stock Compensation*. These amounts exclude the value of estimated forfeitures. See Note 7 to the consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2020 for information regarding the assumptions used in valuing the options.
- (3) Dr. Bedrosian and Ms. Tetrault were appointed to our Board on December 9, 2020.

The following table sets forth, as of December 31, 2020, the aggregate number of exercisable and unexercisable option awards outstanding held by our non-employee directors at that time.

| <b>Name</b>             | <b>Option Awards<br/>Outstanding</b> |
|-------------------------|--------------------------------------|
| Stuart Arbuckle         | 48,500                               |
| Camille Bedrosian, M.D. | 37,000                               |
| Todd Foley              | 43,500                               |
| Jennifer Good           | 48,500                               |
| Christophe R. Jean      | 43,500                               |
| Edward T. Mathers       | 43,500                               |
| David W. J. McGirr      | 130,741                              |
| Lynn A. Tetrault        | 37,000                               |

## EXECUTIVE OFFICERS

Below is a list of the names, ages as of April 27, 2021, positions, and a brief account of the business experience of the individuals who serve as our executive officers.

| Name                           | Age | Position(s)  |
|--------------------------------|-----|--|
| David P. Meeker, M.D.          | 66  | Chairman of the Board, President and Chief Executive Officer |
| Hunter C. Smith                | 53  | Chief Financial Officer and Treasurer                        |
| Simon Kelner                   | 48  | Chief Human Resources Officer                                |
| Murray Stewart, D.M., F.R.C.P. | 60  | Chief Medical Officer  |
| Jennifer Chien                 | 46  | Executive Vice President, Head of North America              |
| Yann Mazabraud                 | 48  | Executive Vice President, Head of International              |

### Executive Officer Biographies

#### *David P. Meeker, M.D.* | Chairman of the Board, President and Chief Executive Officer

Dr. Meeker's biography is included on page [12](#) of this Proxy Statement.

#### *Hunter C. Smith* | Chief Financial Officer and Treasurer

Mr. Smith has been Chief Financial Officer since July 2017 and Treasurer since August 2017. Mr. Smith also served as our Interim President and Chief Executive Officer from March 2020 to July 2020 and as our Secretary from April 2020 to March 2021. He has more than 25 years of global finance and management experience across multiple industries and financial disciplines, including expertise in business analysis and planning, mergers and acquisitions, treasury, capital raising and investor relations. Previously, he was Vice President, Finance and Chief Financial Officer of the Inflammation and Immunology Business Unit at Celgene Corporation, or Celgene, a global biopharmaceutical company, from 2013 to July 2017. In this role, Mr. Smith provided finance leadership for the global launch of Otezla® and led global business planning and analysis for commercial affiliates and clinical study activities in over 16 countries. Before joining Celgene, Mr. Smith worked in roles of increasing responsibility at Bunge Limited from 1999 to 2013, including Director of Investor Relations, Chief Financial Officer—Asia, Chief Risk Officer, Corporate Treasurer, and Chief Financial Officer of Bunge's Sugar and Bioenergy Segment. Until its acquisition by Brookfield Infrastructure Partners in December 2019, Mr. Smith also served as an independent director of Genesee & Wyoming Inc. and is a member of its compensation and governance committees. Mr. Smith holds an M.B.A. in Finance from New York University's Stern School of Business and a B.A. in History from Northwestern University.

#### *Simon D. Kelner* | Chief Human Resources Officer

Mr. Kelner has been Chief Human Resources Officer since June 2018. Previously, Mr. Kelner worked at Teva Pharmaceuticals Ltd., a multinational pharmaceutical company, from 2016 through 2018, where he served as Vice President, Human Resources—Global Talent Acquisition and Mobility, and developed hiring and talent engagement models. Prior to that, Mr. Kelner held roles of increasing responsibility at Merck & Co., Inc. beginning in 2003, and served most recently as Global Head Talent Development / Future Employment Models from January 2015 to October 2016 and as Executive Director, HR Business Partner—R&D, Technology, Finance and Strategy from July 2013 to January 2015. Mr. Kelner holds an International Executive M.B.A. from Northwestern's Kellogg School of Management, a B.Sc. with Honors in Management Sciences from the University of Manchester Institute of Science and Technology, and a certification in Professional Human Resources Qualifications from the Chartered Institute of Personnel and Development. Mr. Kelner has notified the Company of his resignation as Chief Human Resources Officer of the Company, effective April 30, 2021.

**Murray Stewart, D.M., F.R.C.P.** | *Chief Medical Officer*

Dr. Stewart has been Chief Medical Officer since October 2018. Before joining Rhythm, he was Executive Vice President, Head of Research and Development of Novelion Therapeutics, Inc., a biopharmaceutical company, from November 2017 to October 2018. From 2014 to November 2017, Dr. Stewart was Chief Medical Officer of GlaxoSmithKline plc, or GSK, with global responsibility for the vaccines, pharmaceutical and consumer business units. Prior to that, after joining GSK in 2000 as associate director for clinical research and development in the United Kingdom, Dr. Stewart served in positions of increasing responsibility at GSK, including as GSK's therapy area head for the cardiovascular and metabolic therapy areas from 2010 to 2014 and the clinical head of the biopharmaceutical unit from 2009 to 2010. Prior to joining the pharmaceutical industry, Dr. Stewart worked as a diabetes consultant and senior lecturer and was consultant physician/honorary senior lecturer and head of clinical services at the Diabetes Centre, Newcastle upon Tyne in the United Kingdom. Dr. Stewart serves on the board of directors and the compensation committee of X4 Pharmaceuticals, Inc. and Vivli, a non-profit organization implementing a clinical research data-sharing platform. Dr. Stewart completed his medical training at Southampton Medical School in the United Kingdom and is a Fellow of the Royal College of Physicians.

**Jennifer Chien** | *Executive Vice President, Head of North America*

Ms. Chien has been Executive Vice President, Head of North America since November 2020. Prior to joining Rhythm, Ms. Chien served as Chief Commercial Officer at Krystal Biotech, Inc., a biopharmaceutical company, from January 2020 to October 2020. From November 2014 to January 2020, Ms. Chien held a variety of roles with increasing responsibility at Sanofi Genzyme, a biotechnology company, including Vice President, Head of Genetic Diseases from January 2017 to January 2020 (where she was responsible for the U.S. commercial strategy and implementation for seven brands and launch presentation with rare diseases) and Vice President, Global Head of Rare Nephrological Diseases from November 2014 to January 2017. Ms. Chien holds a B.S. from the Massachusetts Institute of Technology and an M.P.H. from Harvard University.

**Yann Mazabraud** | *Executive Vice President, Head of International*

Mr. Mazabraud has been Executive Vice President, Head of International, since October 2020. Prior to joining Rhythm, Mr. Mazabraud served as Chief Commercial Officer and Head of International of Trevi Therapeutics, Inc., a pharmaceutical company, from November 2017 to October 2020. Prior to that, he held several leadership positions at Sanofi Genzyme, including as U.S. General Manager and North America Head, Rare Diseases from January 2016 to October 2017 and Vice President and Head of Latin America from March 2014 to December 2015. He also served as a member of the Sanofi Genzyme Executive Leadership Team. While at Genzyme and Sanofi Genzyme, he led and managed several product launches for rare genetic diseases in Europe, Latin America and the United States across multiple areas including genetics, pediatrics, nephrology, neurology and endocrinology. Mr. Mazabraud holds a master's degree in management from Ecole Supérieure de Commerce de La Rochelle.

## EXECUTIVE COMPENSATION

## 2020 Summary Compensation Table

The following table sets forth information about compensation awarded or paid to our named executive officers for the fiscal years presented.

| Name and Principal Position  | Year | Base Salary(1)<br>(\$) | Bonus<br>(\$) | Stock Awards (2) | Option Awards(2)<br>(\$) | Non-Equity Incentive Plan Compensation(3)<br>(\$) | All Other Compensation<br>\$(4) | Total<br>(\$) |
|--|------|------------------------|---------------|------------------|--------------------------|---|---------------------------------|---------------|
| David P. Meeker, M.D.<br><i>President and Chief Executive Officer</i> (5)  | 2020 | 262,308                | —             | 918,500          | 12,844,897               | 207,958   | 43,704                          | 13,358,867    |
| Keith M. Gottesdiener,<br>M.D.<br><i>Former President and Chief Executive Officer</i> (6)  | 2020 | 142,906                | —             | —                | 2,810,726                | —   | 495,537                         | 3,449,169     |
|  | 2019 | 525,934                | —             | —                | 4,133,768                | 277,340   | —                               | 4,937,042     |
| Hunter C. Smith<br><i>Chief Financial Officer, Treasurer, Secretary and Former Interim President and Chief Executive Officer</i> (8) | 2020 | 416,118                | 60,000(7)     | 132,000          | 1,837,630                | 209,595   | 7,125                           | 2,530,468     |
|  | 2019 | 396,992                | —             | —                | 1,286,061                | 153,224   | 86,576                          | 1,922,853     |
| Murray Stewart, D.M.,<br>F.R.C.P.<br><i>Chief Medical Officer</i>  | 2020 | 451,169                | 60,000(7)     | 113,000          | 1,555,420                | 226,600   | 7,125                           | 2,300,314     |
| Jennifer Chien<br><i>Executive Vice President, Head of North America</i> (9)   | 2020 | 45,577                 | 100,000(10)   | 100,000          | 1,517,540                | 49,375  | —                               | 1,712,492     |
| Nithya Desikan<br><i>Former Chief Commercial Officer</i> (11)  | 2020 | 305,510                | —             | 105,000          | 1,533,841                | —   | 104,620                         | 1,943,971     |
|  | 2019 | 379,063                | —             | —                | 1,286,061                | 145,117   | —                               | 1,810,241     |

- (1) Salaries include amounts contributed by the named executive officer to our 401(k) plan.
- (2) Amounts shown reflect the grant date fair value of restricted stock units and options, determined in accordance with the Financial Accounting Standards Board, Accounting Standards Codification Topic 718, *Compensation—Stock Compensation*. These amounts exclude the value of estimated forfeitures. Note that the amounts reported in this column reflect the accounting cost for these awards, and do not correspond to the actual economic value that may be received by the named executive officers from the awards. See Note 7 to the consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2020 for information regarding assumptions used in valuing the awards. The amount for Dr. Meeker includes both the grant date fair value of stock options granted to him for his service as a non-employee director prior to his appointment as our President and Chief Executive Officer and the grant date fair value of stock options granted to him in connection with his appointment as our President and Chief Executive Officer. Amounts for Mr. Gottesdiener and Ms. Desikan also include the incremental fair value attributable to the extended exercisability of certain of their options pursuant to their separation agreements with the Company.
- (3) Amounts shown reflect the cash performance bonus amount paid to the named executive officers that was earned based on Rhythm's performance. Annual cash incentive compensation earned during the year is typically paid in the following year.
- (4) Consists of the following for each named executive officer: Dr. Meeker: fees paid for Dr. Meeker's service as a non-employee director pursuant to our non-employee director compensation program prior to his appointment as our President and Chief Executive Officer and the company match to his

401(k) contributions; Dr. Gottesdiener: cash severance payments, cash payments to cover a portion of Dr. Gottesdiener's healthcare expenses following termination, reimbursement of moving expenses, and reimbursement of attorneys' fees relating to Dr. Gottesdiener's separation and consulting agreements paid in 2020, in each case, pursuant to his separation agreement with the Company, consulting fees paid in 2020 pursuant to his consulting agreement with the Company and the company match to his 401(k) contributions; Mr. Smith: the company match to his 401(k) contributions; Dr. Stewart: the company match to his 401(k) contributions; and Ms. Desikan: cash severance, continued healthcare premiums paid in 2020 pursuant to her separation agreement with the Company and the company match to her 401(k) contributions.

- (5) Dr. Meeker was appointed as our President and Chief Executive Officer effective as of July 20, 2020.
- (6) Dr. Gottesdiener stepped down from his roles as our President and Chief Executive Officer and as a member of our Board effective as of March 27, 2020.
- (7) Amounts shown reflect the discretionary bonuses paid to each of Mr. Smith and Dr. Stewart in recognition of their significant contributions in 2020.
- (8) Mr. Smith served as our Interim President and Chief Executive Officer from March 28, 2020 until July 19, 2020.
- (9) Ms. Chien commenced employment with us effective November 9, 2020.
- (10) Amount shown reflects the sign-on bonus paid to Ms. Chien in connection with her employment with us.
- (11) Ms. Desikan separated from the Company effective September 30, 2020.

Our executive compensation program is based on a pay-for-performance philosophy. The Compensation Committee designed our executive compensation program to achieve the following primary objectives: provide compensation and benefit levels that will attract, retain, motivate and reward a highly talented executive team within the context of responsible cost management; establish a direct link between our individual/team performance and results and our executives' compensation; and align the interests and objectives of our executives with those of our stockholders by linking executive equity awards to stockholder value creation. The compensation program for our executive officers is composed primarily of the following three main components: base salary, annual cash incentives and long-term equity incentives.

In 2019, as part of our annual evaluation of executive compensation, we engaged Radford, an Aon Hewitt company, or Radford, an independent executive compensation consultant, to provide advice and recommendations relating to our executive officer compensation arrangements. Radford assisted the Compensation Committee in determining an appropriate peer group to evaluate our executive officer compensation for alignment with governance and market best practices, and to provide recommendations on appropriate compensation philosophy to guide the Compensation Committee in determining executive officer compensation.

The peer group was selected based on, among other things, the following criteria: (i) publicly traded pre-commercial therapeutic/biotechnology companies, (ii) companies in the late stage of development of product and companies that are currently in the regulatory approval process, (iii) companies with market capitalizations between \$500 million and \$3.5 billion, and (iv) companies with less than 200 employees.

The following table presents the peer group selected in 2019 by the Compensation Committee following its discussions with Radford. The Compensation Committee believed when it selected this peer group that this peer group was appropriate from a strategic/stage of development and market capitalization perspective based on, among other things, the above-defined criteria.



|                           |                           |                       |
|---------------------------|---------------------------|-----------------------|
| Accelaron Pharma          | Dicerna Pharmaceuticals   | Odonate Therapeutics  |
| Akebia Therapeutics       | Esperion Therapeutics     | Ra Pharmaceuticals    |
| Atara Biotherapeutics     | Global Blood Therapeutics | Reata Pharmaceuticals |
| Audentes Therapeutics     | Insmed                    | Syros Pharmaceuticals |
| Biohaven Pharmaceuticals  | Intra-Cellular Therapies  | TG Therapeutics       |
| Cara Therapeutics         | Iovance Biotherapeutics   | Zogenix               |
| ChemoCentryx              | Karyopharm Therapeutics   |                       |
| Deciphera Pharmaceuticals | MyoKardia                 |                       |

As compared to our peer group selected in 2018, the 2019 peer group excluded Minerva Neurosciences and GlycoMimetics because they no longer met our peer group criteria, and Dicerna Pharmaceuticals was added as a replacement.

#### **Base Salary**

The 2020 base salaries for each named executive officer other than Dr. Meeker were effective March 1, 2020 and determined by the Board following the recommendation of the Compensation Committee, which gives consideration to each officer's experience, expertise and performance, as well as market compensation levels for similar positions. Dr. Meeker's base salary was set in connection with his commencement of employment with us in July 2020 based on arm's length negotiations and following consideration of market compensation levels.

The table below sets forth our named executive officers' 2020 base salaries and their 2019 base salaries to the extent applicable.

| Name                           | 2019<br>Base Salary<br>(\$) | 2020<br>Base Salary<br>(\$) |
|--------------------------------|-----------------------------|-----------------------------|
| David P. Meeker, M.D.          | N/A                         | 620,000                     |
| Keith M. Gottesdiener, M.D.    | 530,795                     | 530,874                     |
| Hunter C. Smith                | 399,228                     | 419,189                     |
| Murray Stewart, D.M., F.R.C.P. | 440,000                     | 453,200                     |
| Jennifer Chien                 | N/A                         | 395,000                     |
| Nithya Desikan                 | 381,888                     | 400,982                     |

#### **Annual Performance-Based Incentive Opportunity**

In addition to base salaries, our named executive officers are eligible to receive annual performance-based cash incentives, which are designed to motivate our executives to achieve defined annual corporate and individual goals. The annual performance-based cash incentive each named executive officer was eligible to receive in 2020 was determined based on each named executive officer's target bonus, multiplied by a weighted achievement score determined by the Compensation Committee and the Board based on overall achievement of the annual corporate goals and each named executive officer's achievement of his or her individual goals. In 2020, achievement of the corporate goals accounted for 80% of the overall achievement score and achievement of each named executive officer's individual goals accounted for 20% of the overall achievement score. At the beginning of each year, the Compensation Committee and the Board reviews and approves the annual corporate and individual goals. There is no minimum bonus percentage or amount established for the named executive officers and, as a result, the bonus amounts vary from year to year based on corporate and individual performance.

The annual corporate goals were designed to measure our commercial growth and the development of our product candidates, including the progression and enrollment of our clinical programs, announcement of clinical trial results, achievement of product candidate development and regulatory milestones, expansion of genetic disease and patient identification programs, and progression of our commercial capabilities through establishment of infrastructure and facilities. The individual goals were designed to measure each officer's individual contribution to the corporate goals and his or her individual performance.

For 2020, our named executive officers' target bonuses as a percentage of base salary were as follows:

| Name                           | 2020 Target Bonus (as a percentage of base salary) |
|--------------------------------|--|
| David P. Meeker, M.D.          | 60%  |
| Keith M. Gottesdiener, M.D.    | 55%  |
| Hunter C. Smith                | 40%  |
| Murray Stewart, D.M., F.R.C.P. | 40%  |
| Jennifer Chien                 | 40%  |
| Nithya Desikan                 | 40%  |

After the end of 2020, the Compensation Committee and the Board determined that the Company had achieved the 2020 corporate goals at 125% of target, reflecting the significant progress on key objectives made during 2020. The Company filed its first new drug application with the U.S. Food and Drug Administration and its first marketing authorization application with the European Medicines Agency, achieved regulatory approval of IMCIVREE™ (setmelanotide) as the first-ever therapy for chronic weight management in patients with obesity due to POMC, PCSK1 or LEPR deficiency. The Company was also granted a Rare Pediatric Disease Priority Review Voucher. In addition, Rhythm announced positive topline results from its pivotal Phase 3 clinical trial evaluating setmelanotide in Bardet-Biedl and Alström Syndromes, with the study meeting its primary endpoint and all key secondary endpoints with statistically significant and clinically meaningful reductions in weight and hunger. The results were supportive of an sNDA filing. During 2020, the Company also demonstrated proof-of-concept in HET POMC, PCSK1 or LEPR deficiencies, SRC1 and SH2B1 deficiency obesities in its Phase 2 Basket Study. Together with these major milestones and many other achievements, the Rhythm team continued to build the community and Rhythm engine via basket site expansion, enrollment, new indications, sequencing, and disease education. The Compensation Committee and the Board recognized all these achievements were delivered within a challenging COVID-19 environment.

The Compensation Committee and the Board also reviewed and approved each named executive officer's achievement of the executive's respective individual goals at 100% of target. Based on the weighted achievement scores, Dr. Meeker received a bonus of \$207,958, Mr. Smith received a bonus of \$269,595, which included \$60,000 in recognition of his service as our Interim President and Chief Executive Officer from April 2020 to July 2020, Dr. Stewart received a bonus of \$286,600, which included \$60,000 to recognize the significant regulatory achievements delivered under his leadership, and Ms. Chien received a bonus of \$49,375. The bonuses paid to Dr. Meeker and Ms. Chien were prorated to reflect their partial period of employment during 2020. Dr. Gottesdiener and Ms. Desikan did not receive a bonus for 2020 performance because they separated from the Company during 2020.

### ***Equity Compensation***

We make annual grants of equity awards to our named executive officers as the long-term incentive component of our compensation program. In February 2020, we granted to Mr. Smith, Dr. Stewart and Ms. Desikan the options to purchase our common stock set forth in the table below. Each option vests in sixteen equal quarterly installments beginning on May 14, 2020, subject to the named executive officer's continued service to the Company on each applicable vesting date.

| Name                           | Shares Subject to Options |
|--------------------------------|---------------------------|
| Hunter C. Smith                | 82,000                    |
| Murray Stewart, D.M., F.R.C.P. | 88,000                    |
| Nithya Desikan                 | 80,000                    |

In June 2020, we granted to Mr. Smith, Mr. Stewart and Ms. Desikan the retention restricted stock units awards set forth in the table below. Each such award vests in full on June 30, 2022, subject to the named executive officer's continued service to the Company on such date, provided that each award will vest in full

in the event of a “qualifying termination” (as such term or a term of similar effect is defined in offer letter or employment agreement between the named executive officer and the Company).

| Name                           | Restricted Stock Units |
|--------------------------------|------------------------|
| Hunter C. Smith                | 25,000                 |
| Murray Stewart, D.M., F.R.C.P. | 25,000                 |
| Nithya Desikan                 | 25,000                 |

In July 2020, we also granted to Dr. Meeker an option to purchase 900,000 shares of our common stock in connection with his commencement of employment with us as our President and Chief Executive Officer. This grant recognized the deep experience and unique expertise in rare disease brought by Dr. Meeker, and his proven leadership of biotech organizations from development to commercialization. 25% of the shares subject to the option will vest on July 20, 2021 and the remaining shares subject to the option will vest in 12 substantially equal quarterly installments thereafter, subject to Dr. Meeker’s continued service with the Company on each applicable vesting date, provided that the option will vest in full in the event Dr. Meeker’s employment is terminated by the Company without “cause” or Dr. Meeker resigns his employment for “good reason” (each as defined in his employment letter agreement) and in either case, within three months prior to or 12 months following a change of control of the Company.

In July 2020, we also granted to Mr. Smith an option to purchase 25,000 shares of our common stock in recognition of his service as our Interim President and Chief Executive Officer. Such option vests in 16 substantially equal quarterly installments beginning on October 20, 2020, subject to his continued service to the Company on each applicable vesting date.

In November 2020, we granted to Ms. Chien an option to purchase 100,000 shares of our common stock in connection with his commencement of employment with us as our Executive Vice President, Head of North America. 25% of the shares subject to the option will vest on November 9, 2021 and the remaining shares subject to the option will vest in 12 substantially equal quarterly installments thereafter, subject to Ms. Chien’s continued service with the Company on each applicable vesting date.

#### Outstanding Equity Awards at 2020 Fiscal Year End

The following table provides information about outstanding equity awards held by each of our named executive officers at December 31, 2020.

| Name                            | Option Awards(1)             |   |   |                            |                        | Stock Awards                                       |   |
|---------------------------------|------------------------------|---|---|----------------------------|------------------------|--|---|
|                                 | Vesting Commencement Date(2) | Number of Securities Underlying Unexercised Options (#) Exercisable | Number of Securities Underlying Unexercised Options (#) Unexercisable | Option Exercise Price (\$) | Option Expiration Date | Number of Shares of Stock That Have Not Vested (#) | Market Value of Shares or Units of Stock That Have Not Vested (\$)(3) |
| David P. Meeker, M.D.           | 11/17/2015(4)                | 43,621  | —   | \$ 4.59                    | 11/16/2025             |  |   |
|                                 | 2/8/2017(4)                  | 65,430  | —   | \$ 6.05                    | 2/7/2027               |  |   |
|                                 | 6/6/2018(5)                  | 10,000  | —   | \$34.89                    | 6/5/2028               |  |   |
|                                 | 6/19/2019(5)                 | 15,000  | —   | \$22.93                    | 6/18/2029              |  |   |
|                                 | 6/17/2020(5)                 | —   | 18,500  | \$21.37                    | 6/16/2030              |  |   |
|                                 | 7/17/2020(6)                 | —   | 900,000   | \$22.53                    | 7/16/2030              |  |   |
| Keith M. Gottesdiener, M.D.(10) | 7/3/2015(4)                  | 84,208  | —   | \$ 4.59                    | 11/16/2025             |  |   |
|                                 | 7/3/2015(4)                  | 57,252  | —   | \$ 7.52                    | 12/30/2025             |  |   |
|                                 | 12/6/2016(4)                 | 201,815   | —   | \$ 6.14                    | 4/4/2027               |  |   |
|                                 | 2/14/2018(7)                 | 120,312   | —   | \$25.79                    | 2/13/2028              |  |   |
|                                 | 2/13/2019(7)                 | 98,437  | —   | \$29.78                    | 2/12/2029              |  |   |

| Name                           | Option Awards(1)             |   |   |                            |                        | Stock Awards                                       |  |
|--------------------------------|------------------------------|---|---|----------------------------|------------------------|--|--|
|                                | Vesting Commencement Date(2) | Number of Securities Underlying Unexercised Options (#) Exercisable | Number of Securities Underlying Unexercised Options (#) Unexercisable | Option Exercise Price (\$) | Option Expiration Date | Number of Shares of Stock That Have Not Vested (#) | Market Value of Shares or Units of Stock That Have Not Vested (\$) (3) |
| Hunter C. Smith                | 7/31/2017(6)                 | 142,673   | 29,421  | \$ 6.88                    | 8/8/2027               |  |  |
|                                | 2/14/2018(7)                 | 41,937  | 19,063  | \$25.79                    | 2/13/2028              |  |  |
|                                | 2/13/2019(7)                 | 30,625  | 39,375  | \$29.78                    | 2/12/2029              |  |  |
|                                | 2/14/2020(7)                 | 15,375  | 66,625  | \$17.87                    | 2/13/2030              |  |  |
|                                | 7/17/2020(7)                 | 1,562   | 23,438  | \$22.53                    | 7/16/2030              |  |  |
|                                | 6/30/2020(9)                 |   |   |                            |                        | 25,000   | 743,250  |
| Murray Stewart, D.M., F.R.C.P. | 10/15/2018(6)                | 50,000  | 50,000  | \$26.54                    | 10/14/2028             |  |  |
|                                | 2/13/2019(7)                 | 26,250  | 33,750  | \$29.78                    | 2/12/2029              |  |  |
|                                | 2/14/2020(7)                 | 16,500  | 71,500  | \$17.87                    | 2/13/2030              |  |  |
|                                | 6/30/2020(9)                 |   |   |                            |                        | 25,000   | 743,250  |
| Jennifer Chien                 | 11/9/2020(8)                 | —   | 100,000   | \$24.29                    | 11/08/2030             |  |  |
| Nithya Desikan                 | 7/23/2017                    | 48,201  | —   | \$ 6.88                    | 8/8/2027               |  |  |
|                                | 2/14/2018                    | 38,125  | —   | \$25.79                    | 2/13/2028              |  |  |
|                                | 2/13/2019                    | 26,250  | —   | \$29.78                    | 2/12/2029              |  |  |
|                                | 2/14/2020                    | 10,000  | —   | \$17.87                    | 2/13/2030              |  |  |

- (1) Upon an option holder's termination of employment on account of the option holder's death or disability, these options expire on the first anniversary of the option holder's termination. If an option holder's employment terminates for any other reason, these options expire three months after the option holder's termination.
- (2) If the option holder's employment is terminated within the three months preceding or the 12 months immediately following a change of control of us, 100% of the option holder's equity awards will become immediately exercisable.
- (3) The market value was calculated by multiplying \$29.73, the closing price per share of the Company's common stock on December 31, 2020, by the number of unvested RSUs outstanding.
- (4) These options vest in 48 equal monthly installments following the vesting commencement date, except that the last installment, if necessary, may be smaller.
- (5) These options vest in full upon the earlier of the first anniversary of the date of grant or the date of the next annual meeting of stockholders.
- (6) 25% of the shares subject to these options vest on the first anniversary of the vesting commencement date, and the remaining shares vest in 36 monthly installments thereafter, except that the last installment, if necessary, may be smaller.
- (7) These options vest in 16 equal quarterly installments following the vesting commencement date, except that the last installment, if necessary, may be smaller.
- (8) 25% of the shares subject to these options vest on the first anniversary of the vesting commencement date, and the remaining shares vest in 12 quarterly installments thereafter, except that the last installment, if necessary, may be smaller.
- (9) These RSUs will vest in full on June 30, 2022, provided that the RSUs will vest in full in the event of a "qualifying termination" (as such term or a term of similar effect is defined in offer letter or employment agreement between the named executive officer and the Company).

- (10) Pursuant to the separation agreement and consulting agreement entered into with Dr. Gottesdiener in January 2020, Dr. Gottesdiener continued to provide consulting services following his separation from the Company until December 31, 2020, and during the term of his consultancy, Dr. Gottesdiener's stock options continued to vest. In addition, certain stock options held by Dr. Gottesdiener will remain exercisable until December 31, 2022. See below under "Employment Arrangements—Agreements with Dr. Gottesdiener" for a description of the separation agreement and consulting agreement.

#### **401(k) Plan**

We maintain a tax-qualified retirement plan that provides eligible U.S. employees with an opportunity to save for retirement on a tax advantaged basis. Eligible employees are able to defer eligible compensation up to certain limits under the Internal Revenue Code of 1986, as amended, or the Code, which are updated annually. Beginning on January 1, 2020, we began matching 50% of the first 5% of eligible compensation contributed by participants in the 401(k) plan. Employee contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. Employees are immediately and fully vested in their own contributions, and Company matching contributions are subject to graded vesting over a three-year employment period. The 401(k) plan is intended to be qualified under Section 401(a) of the Code, with the related trust intended to be tax exempt under Section 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) plan are deductible by us when made, and contributions and earnings on those amounts are not taxable to the employees until withdrawn or distributed from the 401(k) plan.

#### **Employment Arrangements**

Below are descriptions of our employment arrangements with each of our named executive officers.

*Agreement with Dr. Meeker.* In July 2020, in connection with his appointment as President and Chief Executive Officer, we entered into a letter agreement with Dr. Meeker, which sets forth the terms and conditions of his employment. Under the letter agreement, Dr. Meeker was entitled to receive an initial annual base salary of \$620,000, subject to periodic review and adjustment by the Board, and an annual bonus opportunity initially targeted at 60% of his annual base salary. In addition, the letter agreement provided for a new-hire stock option grant described above under "—Equity Compensation".

Upon a termination without "cause" or for "good reason", subject to customary conditions, including his execution and nonrevocation of an acceptable release, Dr. Meeker will be entitled to receive a severance payment in an aggregate amount equal to 12 months of his base salary then in effect, paid in substantially equal installments over a period of 12 months, in accordance with ordinary payroll practices and reimbursement for COBRA premiums for up to 12 months following such termination, provided that in the event of any such termination within three months prior to or 12 months following a change in control of the Company, the foregoing benefits will be provided for 18 months.

Dr. Meeker's letter agreement also contains a parachute payment "best pay" provision, under which payments and benefits pursuant to the letter agreement or otherwise will either be made to him in full or as to such lesser amount as which would result in no portion of the payments and benefits being subject to an excise tax under Section 4999 of the Code, whichever of the foregoing amounts is greater on an after-tax basis.

*Agreements with Dr. Gottesdiener.* On January 6, 2020, we entered into a separation agreement and a consulting agreement with Dr. Gottesdiener. Dr. Gottesdiener's separation was effective March 27, 2020. Pursuant to the separation agreement, subject to his execution and non-revocation of a release of claims and his continued compliance with his restrictive covenants with the Company, Dr. Gottesdiener became eligible to receive severance equal to his annual base salary of \$530,874, payable over 12 months in accordance with the Company's standard payroll practices, an additional monthly payment of \$1,200 that Dr. Gottesdiener may use to cover a portion of his healthcare costs, reimbursement of up to \$1,000 in moving expenses to move his personal furniture from his office, extended exercisability of certain of his outstanding options until December 31, 2022, and an additional lump sum cash amount of \$26,182. Dr. Gottesdiener was also eligible to receive a pro-rated 2020 annual incentive bonus, subject to discretion of the Board, in an amount to be determined by the Board, and payment or reimbursement of up to \$20,000

in attorneys' fees in connection with the preparation of the separation agreement and consulting agreement. In the event of a change in control within three months following Dr. Gottesdiener's separation date, Dr. Gottesdiener would have been eligible to receive the change in control severance benefits under his letter agreement.

Pursuant to the consulting agreement, Dr. Gottesdiener provided consulting services to the Company for up to 10 hours per month for a fee of \$10,000 per month. During the term of his consultancy, Dr. Gottesdiener's stock options continued to vest, and certain stock options remain exercisable until December 31, 2022. The term of the consulting agreement ended on December 31, 2020.

*Agreements with Mr. Smith, Dr. Stewart and Ms. Desikan.* Under the letter agreements with each of Mr. Smith, Dr. Stewart and Ms. Desikan, the named executive officer is entitled to a base salary and is eligible to receive an annual target performance bonus based on a percentage of his or her base salary, each as determined and may be adjusted by the Compensation Committee, and is entitled to certain severance benefits as described below.

Upon a termination without "cause" or for "good reason" unrelated to a "change of control" (each, as defined in the letter agreement), subject to customary conditions, including his or her execution and nonrevocation of an acceptable release, the named executive officer will be entitled to receive a severance payment in an aggregate amount equal to nine months of his or her base salary then in effect, paid in substantially equal installments over a period of nine months, in accordance with ordinary payroll practices. The named executive officer will also receive reimbursement for COBRA premiums for up to nine months following such termination.

Upon a termination without "cause" or for "good reason" within the three months immediately preceding or the 12 months immediately following a "change of control", subject to customary conditions, including his or her execution and nonrevocation of an acceptable release, the named executive officer, in lieu of the above benefits, will be entitled to receive a severance payment in an aggregate amount equal to 12 months of his or her base salary then in effect plus 100% of his or her annual target bonus for the year in which the termination occurs, paid in substantially equal installments over a period of 12 months, in accordance with ordinary payroll practices. The named executive officer will also receive reimbursement for COBRA premiums for up to 12 months following such termination. In addition, each unvested equity award held by the named executive officer granted by us will immediately become fully vested.

The letter agreements also contain a parachute payment "best pay" provision, under which payments and benefits pursuant to the letter agreement or otherwise will either be made to the named executive officer in full or as to such lesser amount as which would result in no portion of the payments and benefits being subject to an excise tax under Section 4999 of the Code, whichever of the foregoing amounts is greater on an after-tax basis.

We also entered into a separation agreement with Ms. Desikan in connection with her separation from us in September 2020. Pursuant to the separation agreement, subject to Ms. Desikan's continued compliance with certain confidentiality obligations and restrictive covenants, Ms. Desikan is eligible to receive nine months of continued base salary, payment or reimbursement of continued healthcare premiums for up to nine months, acceleration of the restricted stock unit award granted to Ms. Desikan in June 2020, and extended exercisability of each non-qualified stock option held by Ms. Desikan until March 31, 2021 (or if earlier, the final expiration date of the option).

*Agreement with Ms. Chien.* We entered into a letter agreement with Ms. Chien in September 2020 in connection with her commencement of employment as our Executive Vice President, Head of North America. Under the letter agreement, Ms. Chien was entitled to an initial annual base salary of \$395,000 and an initial annual target performance bonus equal to 40% of her annual base salary. In addition, pursuant to the employment agreement, Ms. Chien received a one-time cash sign-on bonus of \$100,000. In the event that Ms. Chien resigns for any reason prior to a "change of control" (as defined in the letter agreement) or is terminated for "cause" (as defined in the letter agreement"), in either case, within 12 months following her start date, she will be required to repay the sign-on bonus to the Company. As provided in the letter agreement, Ms. Chien also received a grant of an option to purchase 100,000 shares of our common stock, as described above under "Equity Compensation". Under the letter agreement, Ms. Chien is also entitled to the same

severance benefits as described above under the letter agreements with Mr. Smith, Dr. Stewart and Ms. Desikan, provided that if a termination without cause or for “good reason” (as defined in the letter agreement) unrelated to a change of control occurs on or prior to the first anniversary of Ms. Chien’s employment commencement date, the aggregate amount of the severance payment will equal 12 months of her base salary and she will be eligible to receive reimbursement of COBRA for up to 12 months following termination.

**Compensation Consultant**

In connection with our executive compensation review, in 2020 our Compensation Committee engaged Radford to provide our Compensation Committee guidance with respect to the development and implementation of our compensation programs.

Our Compensation Committee charter requires that it select a compensation consultant only after considering all factors relevant to such consultant’s independence from management. During 2020, Radford did not provide services to us other than the services described in this Proxy Statement. Our Compensation Committee has determined that Radford is independent and that its work does not raise any conflict of interest.

**AUDIT COMMITTEE REPORT**

The Audit Committee has reviewed the audited consolidated financial statements of the Company for the fiscal year ended December 31, 2020 and has discussed these financial statements with management and the Company's independent registered public accounting firm. The Audit Committee has also received from, and discussed with, Rhythm Pharmaceuticals, Inc.'s independent registered public accounting firm the matters that they are required to provide to the Audit Committee, including the matters required to be discussed by the Public Company Accounting Oversight Board ("PCAOB") and the SEC.

The Company's independent registered public accounting firm also provided the Audit Committee with a formal written statement required by PCAOB Rule 3526 (Communications with Audit Committees Concerning Independence) describing all relationships between the independent registered public accounting firm and the Company, including the disclosures required by the applicable requirements of the PCAOB regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence. In addition, the Audit Committee discussed with the independent registered public accounting firm its independence from the Company.

Based on its discussions with management and the independent registered public accounting firm, and its review of the representations and information provided by management and the independent registered public accounting firm, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

David W.J. McGirr, *Chair*  
Stuart A. Arbuckle  
Christophe R. Jean



**PROPOSAL NO. 2—RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED  
PUBLIC ACCOUNTING FIRM**

We are asking our stockholders to ratify the Audit Committee’s selection of Ernst & Young LLP, or Ernst & Young, as our independent registered public accounting firm for the fiscal year ending December 31, 2021. Ernst & Young has served as our independent registered public accounting firm since 2015.

The Audit Committee annually reviews the independent registered public accounting firm’s independence, including reviewing all relationships between the independent registered public accounting firm and us and any disclosed relationships or services that may impact the objectivity and independence of the independent registered public accounting firm, and the independent registered public accounting firm’s performance.

Although stockholder ratification is not required by our bylaws or otherwise, the Board believes it is advisable to provide stockholders an opportunity to ratify this selection and is submitting the selection of Ernst & Young to our stockholders for ratification as a matter of good corporate practice. If the selection is not ratified, the Audit Committee will consider whether it is appropriate to select another independent registered public accounting firm, but is not required to do so. Even if the selection is ratified, the Audit Committee in its discretion may select a different registered public accounting firm at any time during the year if the Audit Committee determines that such a change would be in the best interests of Rhythm and its stockholders.

We expect that a representative of Ernst & Young will attend the Annual Meeting and will have an opportunity to make a statement if he or she so chooses and will be available to respond to appropriate questions from stockholders.

**Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm**

The Audit Committee pre-approves all audit services, and permitted non-audit services (including the fees and terms thereof) to be performed by Ernst & Young, subject to the de minimis exception for non-audit services that are approved by the Audit Committee prior to the completion of an audit. The Audit Committee may delegate pre-approval authority to one or more members of the Audit Committee consistent with applicable law and listing standards, provided that the decisions of such Audit Committee member or members must be presented to the full Audit Committee at its next scheduled meeting.

**Principal Accountant Fees and Services**

We regularly review the services and fees of Ernst & Young LLP. These services and fees are also reviewed by the Audit Committee on an annual basis. The following table sets forth all fees paid or accrued by us for professional audit services and other services rendered by Ernst & Young LLP during the years ended December 31, 2020 and 2019:

| Fee Category       | 2019             | 2020             |
|--------------------|------------------|------------------|
| Audit Fees         | \$575,100        | \$813,700        |
| Audit Related Fees | —                | —                |
| Tax Fees           | \$ 32,500        | \$ 22,500        |
| All Other Fees     | \$ 3,345         | \$ 3,600         |
| <b>Total Fees</b>  | <b>\$610,945</b> | <b>\$839,800</b> |

*Audit Fees.* Consist of aggregate fees for professional services provided in connection with the annual audit of our consolidated financial statements, the review of our quarterly condensed consolidated financial statements, consultations on accounting matters directly related to the audit, and comfort letters, consents and assistance with and review of documents filed with the SEC.

*Tax Fees.* Consist of aggregate fees for tax compliance, tax advice and tax planning services including the review and preparation of our federal and state income tax returns.

*All Other Fees.* Consist of aggregate fees billed for products and services provided by the independent registered public accounting firm other than those fees disclosed above. For the years ended December 31, 2019 and, 2020, the other fees consist of fees billed related to our Ernst & Young research website membership.

The Audit Committee pre-approved all services performed since the pre-approval policy was adopted.

**Vote Required**

The affirmative vote of a majority of shares of our common stock, present online or represented by proxy at the Annual Meeting and entitled to vote, is required to ratify the selection of our independent auditors. An abstention is treated as present and entitled to vote and, therefore, has the effect of a vote “against” the proposal. Because the ratification of the selection of the independent auditors is a routine matter, a nominee holding shares in street name may vote on this proposal in the absence of instructions from the beneficial owner and, therefore, we do not expect any broker non-votes on this proposal.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE “FOR” THE RATIFICATION OF THE SELECTION OF ERNST & YOUNG AS THE COMPANY’S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM.**

**(PROPOSAL NO. 2)**

**PROPOSAL NO. 3—APPROVAL, ON AN ADVISORY (NON-BINDING) BASIS, OF THE  
COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS**

As required by Section 14A(a)(1) of the Exchange Act, the below resolution enables our stockholders to vote to approve, on an advisory (non-binding) basis, the compensation of our named executive officers as disclosed in this Proxy Statement. This proposal, commonly known as a “Say-on-Pay Vote”, gives our stockholders the opportunity to express their views on our named executive officers’ compensation. The Say-on-Pay Vote is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers described in this Proxy Statement.

We encourage our stockholders to review the “Executive Compensation” section of this Proxy Statement for more information.

As an advisory approval, this proposal is not binding upon us or our Board or the Compensation Committee, which is responsible for the design and administration of our executive compensation program. However, the Board and Compensation Committee value the opinions of our stockholders expressed through your vote on this proposal. The Board and Compensation Committee will consider the outcome of this vote in making future compensation decisions for our named executive officers. Accordingly, we ask our stockholders to vote “FOR” the following resolution at the Annual Meeting:

“**RESOLVED**, that the Company’s stockholders approve, by a non-binding advisory vote, the compensation of the named executive officers, as disclosed in the Company’s Proxy Statement for the 2021 Annual Meeting of Stockholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the compensation tables and narrative discussion.”

The Board will determine when the next advisory Say-on-Pay Vote will be held following consideration of the outcome of the advisory vote on the frequency of future Say-on-Pay Votes, included in this Proxy Statement as Proposal No. 4.

**Vote Required**

The affirmative vote of a majority of shares of our common stock, present online or represented by proxy at the Annual Meeting and entitled to vote, is required to approve the compensation of our named executive officers. An abstention is treated as present and entitled to vote and, therefore, has the effect of a vote “against” the proposal. Broker non-votes will have no effect on the outcome of the vote on this proposal.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE “FOR” THE  
APPROVAL, ON AN ADVISORY (NON-BINDING) BASIS, OF THE COMPENSATION OF OUR NAMED  
EXECUTIVE OFFICERS.**

**(PROPOSAL NO. 3)**

**PROPOSAL NO. 4—APPROVAL, ON AN ADVISORY (NON-BINDING) BASIS, OF THE FREQUENCY OF FUTURE SAY-ON-PAY VOTES**

In accordance with Section 14A(a)(2) of the Exchange Act, we are requesting your advisory, non-binding vote regarding the frequency with which stockholders should have an opportunity to provide a Say-on-Pay Vote. We are providing stockholders the option of selecting a frequency of every ONE YEAR, TWO YEARS, or THREE YEARS or abstaining. Stockholders are not voting to approve or disapprove of our recommendation, as set forth below. Rather, stockholders are being asked to express their preference regarding the frequency of future Say-on-Pay Votes.

We recommend that our stockholders select a frequency of every ONE YEAR. We believe that this frequency is appropriate because it will enable our stockholders to vote, on an advisory basis, on the most recent executive compensation information that is presented in our proxy statement, leading to a more meaningful and coherent communication between us and our stockholders on the compensation of our named executive officers. An annual advisory vote on executive compensation is consistent with our goal of seeking input from, and engaging in discussions with, our stockholders on corporate governance matters and our executive compensation program.

**Vote Required**

The affirmative vote of a majority of shares of our common stock, present online or represented by proxy at the Annual Meeting and entitled to vote, is required to approve the frequency of future Say-on-Pay Votes. If no frequency receives the foregoing vote, then we will consider the option of ONE YEAR, TWO YEARS, or THREE YEARS that receives the highest number of votes cast to be the frequency recommended by stockholders. An abstention is treated as present and entitled to vote and, therefore, has the effect of a vote “against” the proposal. Broker non-votes will have no effect on the outcome of the vote on this proposal.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE “ONE YEAR” AS THE FREQUENCY OF FUTURE SAY-ON-PAY VOTES.**

**(PROPOSAL NO. 4)**

**BENEFICIAL OWNERSHIP OF COMMON STOCK**

The following table sets forth certain information as of April 15, 2021 (unless otherwise specified), with respect to the beneficial ownership of our common stock by each person who is known to own beneficially more than 5% of the outstanding shares of common stock, each person currently serving as a director, each director nominee, each named executive officer, and all directors and executive officers as a group).

Shares of common stock subject to options or other rights to purchase which are now exercisable or are exercisable within 60 days after April 15, 2021, are to be considered outstanding for purposes of computing the number of shares beneficially owned and the percentage ownership of the persons holding these options or other rights, but are not to be considered outstanding for the purpose of computing the number of shares beneficially owned or the percentage ownership of any other person. As of April 15, 2021, there were 50,201,758 shares of common stock outstanding. Unless otherwise indicated, the address for each beneficial owner is c/o Rhythm Pharmaceuticals, Inc., 222 Berkeley Street, 12th Floor, Boston, MA 02116.

| Name and Address of Beneficial Owner   | Number of Shares<br>Beneficially Owned† | Percentage of Shares<br>Beneficially Owned |
|--|---|--|
| <b>5% or Greater Stockholders:</b>   |   |  |
| Entities affiliated with PRIMECAP Management Company(1)<br>77 E. Colorado Blvd., 11th Floor<br>Pasadena, CA 91105                                      | 5,570,691                               | 11.1                                       |
| Entities affiliated with New Enterprise Associates 13, L.P.(2)<br>New Enterprise Associates<br>1954 Greenspring Drive, Suite 600<br>Timonium, MD 21093 | 4,912,306                               | 9.8  |
| Janus Henderson Group plc(3)<br>201 Bishopsgate EC2M 3AE<br>United Kingdom   | 4,491,765                               | 8.9  |
| Entities affiliated with RA Capital Management, LLC(4)<br>c/o RA Capital Management, LLC<br>200 Berkeley Street, 18th Floor,<br>Boston, MA 02116       | 4,179,067                               | 8.3  |
| BlackRock, Inc.(5)<br>55 East 52nd Street<br>New York, NY 10055  | 2,731,106                               | 5.4  |
| Entities affiliated with Deerfield Partners, L.P.(6)<br>780 Third Avenue, 37th Floor<br>New York, NY 10017   | 2,721,203                               | 5.4  |
| Entities affiliated with Federated Hermes, Inc.(7)<br>1001 Liberty Avenue<br>Pittsburgh, PA 15222-3779   | 2,617,600                               | 5.2  |
| <b>Directors and Named Executive Officers:</b>   |   |  |
| David P. Meeker, M.D.(8)   | 259,136                                 | *  |
| Keith M. Gottesdiener, M.D.(9)   | 1,103,682                               | 2.2  |
| Hunter C. Smith(10)  | 316,102                                 | *  |
| Murray Stewart, D.M., F.R.C.P. (11)  | 127,265                                 | *  |
| Nithya Desikan(12)   | 29,068                                  | *  |
| Jennifer Chien(13)   | 3,046                                   | *  |
| Stuart A. Arbuckle (14)  | 10,000                                  | *  |
| Camille L. Bedrosian, M.D.   | —                                       | —  |
| Todd Foley(15)   | 934,258                                 | 1.9  |

| Name and Address of Beneficial Owner                             | Number of Shares Beneficially Owned† | Percentage of Shares Beneficially Owned |
|--|--------------------------------------|---|
| Jennifer Good(16)  | 10,000                               | *                                       |
| Christophe R. Jean(17)   | 25,000                               | *                                       |
| Edward T. Mathers(18)  | 25,000                               | *                                       |
| David W.J. McGirr(19)  | 112,241                              | *                                       |
| Lynn A. Tetrault, J.D.   | —                                    | —                                       |
| All executive officers and directors as a group (14 persons)(20) | 3,052,423                            | 5.9                                     |

\* Represents beneficial ownership of less than 1%.

† None of the shares are pledged as security.

- (1) Based solely on a Schedule 13G/A filed on March 8, 2021. PRIMECAP Management Company has sole voting and dispositive power over 5,570,691 shares.
- (2) Based on a Schedule 13D filed on October 13, 2017 and other information known to the Company. Consists of shares held directly by New Enterprise Associates 13, L.P., or NEA 13. Includes 2,350 shares held directly by NEA Ventures 2009, L.P. The shares held directly by NEA 13 are indirectly held by NEA Partners 13, L.P., or Partners 13, which is the sole general partner of NEA 13, NEA 13 GP, LTD, or NEA 13 LTD, which is the sole general partner of Partners 13, and each of the individual directors of NEA 13 LTD. The individual directors of NEA 13 LTD, or the NEA 13 Directors, are M. James Barrett, Peter J. Barris, Forest Baskett, Patrick J. Kerins, David M. Mott, Scott D. Sandell and Ravi Viswanathan. NEA Partners 13, NEA 13 LTD, and the NEA 13 Directors share voting and dispositive power over the shares held directly by NEA 13. All indirect holders of the above referenced shares disclaim beneficial ownership of the shares. The address of the principal business office of NEA 13, Partners 13 and NEA 13 LTD is referenced above. The address of the principal business office of each of Mr. Barrett, Mr. Barris, Mr. Kerins and Mr. Mott is New Enterprise Associates, 5425 Wisconsin Avenue, Suite 800, Chevy Chase, MD 20815. The address of the principal business office of Mr. Baskett, Mr. Sandell, and Mr. Viswanathan is New Enterprise Associates, 2855 Sand Hill Road, Menlo Park, California 94025.
- (3) Based solely on a Schedule 13G/A filed on February 11, 2021. Janus Henderson Group plc, or Janus Group, has a 100% ownership stake in Janus Capital Management LLC, or Janus Capital. Janus Capital is an investment advisor furnishing investment advice to various fund, individual, and institutional clients, or the Managed Portfolios, and may be deemed to be the beneficial owners of the shares held by the Managed Portfolios. Janus Capital does not have the right to receive any dividends from, or the proceeds from the sale of, the securities held in the Managed Portfolios and disclaims any ownership associated with such rights. According to the cover page of the Schedule 13G/A, Janus Group has shared voting and dispositive power over the shares.
- (4) Based solely on a Schedule 13G/A filed on February 16, 2021. Consists of 3,739,239 shares held directly by RA Capital Healthcare Fund, L.P., or RAC Healthcare, and 439,828 shares held in a separately managed account, or the Account. RA Capital Healthcare Fund GP, LLC is the general partner of RAC Healthcare. The general partner of RA Capital Management, L.P., or RA Capital, is RA Capital Management GP, LLC, of which Peter Kolchinsky and Rajeev Shah are the controlling persons. RA Capital serves as investment adviser for RAC Healthcare and the Account and may be deemed a beneficial owner of the shares directly owned by RA Capital and the Account. As managers of RA Capital, Dr. Kolchinsky and Mr. Shah may be deemed beneficial owners of the shares beneficially owned by RA Capital. RAC Healthcare has delegated to RA Capital the sole power to vote and dispose of all securities held by RAC Healthcare and may not revoke that delegation on less than 61 days' notice. RA Capital, Dr. Kolchinsky and Mr. Shah each disclaim beneficial ownership of all shares held by RAC Healthcare or the Account. According to the cover page of the Schedule 13G/A, each of RA Capital, Dr. Kolchinsky and Mr. Shah has shared voting and dispositive power over 4,179,067 shares, and RAC Healthcare has shared voting and dispositive power over 3,739,239 shares.
- (5) Based solely on a Schedule 13G/A filed on February 1, 2021. BlackRock, Inc. has sole voting power over 2,700,024 shares and sole dispositive power over 2,731,106 shares.
- (6) Based solely on a Schedule 13G/A filed on February 12, 2021. Consists of 2,430,198 shares held

directly Deerfield Partners, L.P., or Deerfield Partners, and 291,005 shares held directly Deerfield Private Design Fund III, L.P., or Design Fund. Each of Deerfield Partners and Design Fund has shared voting and dispositive power over the shares held directly by it. Deerfield Mgmt III, L.P. is the general partner of Design Fund and has shared voting and investment power over the shares held by Design Fund. Deerfield Mgmt, L.P. is the general partner of Deerfield Partners and has shared voting and dispositive power over the shares held by Deerfield Partners. Deerfield Management Company, L.P., the investment advisor of Deerfield Partners and Design Fund, and James E. Flynn each has shared voting and investment power over the shares held by Deerfield Partners and Design Fund. All indirect holders of the above referenced shares disclaim beneficial ownership of the shares.

- (7) Based solely on a Schedule 13G filed on February 12, 2021. All of the outstanding voting stock of Federated Hermes, Inc., or Federated, is held in the Voting Shares Irrevocable Trust, or the Trust, for which John F. Donahue, Rhodora J. Donahue and J. Christopher Donahue act as trustees, or collectively, the Trustees. The Trustees exercise collective voting control over Federated. According to the cover page of the Schedule 13G, each of Federated and the Trust have sole voting and investment power over the shares reflected in the table, and each of the Trustees have shared voting and investment power over the shares reflected in the table. Federated, the Trust, and each of the Trustees expressly disclaim beneficial ownership of the shares reflected in the table.
- (8) Consists of (i) 11,335 shares of common stock and (ii) 147,801 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.
- (9) Based on information known to the Company as of March 27, 2020, the date of Dr. Gottesdiener's departure. Consists of (i) 561,658 shares of common stock and (ii) 542,024 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.
- (10) Consists of (i) 33,650 shares of common stock, and (ii) 282,452 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.
- (11) Consists of 127,265 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.
- (12) Based on information known to the Company as of September 30, 2020, the date of Ms. Desikan's departure. Consists of 29,068 shares of common stock.
- (13) Consists of 3,046 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.
- (14) Consists of 10,000 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.
- (15) Consists of (i) 25,000 shares of common stock underlying stock options exercisable within 60 days of April 15, 2021, and (ii) (a) 875,256 shares of common stock held by MPM BioVentures V, L.P. ("BV V"), and (b) 34,002 shares of common stock held by MPM Asset Management Investors BV5 LLC ("AM BV5"), which Mr. Foley may be deemed to beneficially own. Mr. Foley disclaims beneficial ownership of the shares directly held by BV V and AM BV5.
- (16) Consists of 10,000 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.
- (17) Consists of 25,000 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.
- (18) Consists of 25,000 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021. Mr. Mathers is a partner of New Enterprise Associates, Inc. Mr. Mathers does not have voting or dispositive power over any of the shares directly held by NEA 13 referenced in footnote (2) above.
- (19) Consists of 112,241 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.
- (20) Consists of (i) 1,645,565 shares of common stock, and (ii) 1,406,859 shares of common stock underlying options that are exercisable within 60 days of April 15, 2021.

**CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS****Related Party Transactions Policy**

Our Board has adopted a policy that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of any class of our common stock and any members of the immediate family of any of the foregoing persons are not permitted to enter into a related person transaction with us without the prior review and approval of our Governance and Nominating Committee. Any request for us to enter into a transaction with an executive officer, director, nominee for election as a director, beneficial owner of more than 5% of any class of our common stock or any member of the immediate family of any of the foregoing persons in which the amount involved exceeds \$120,000 and such person would have a direct or indirect material interest must first be presented to our Governance and Nominating Committee for review, consideration and approval. In approving or rejecting any such proposal, our Governance and Nominating Committee is to consider the material facts of the transaction, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person's interest in the transaction.

Since January 1, 2020, we have been a party to the following transactions or series of similar transactions, in which:

- the amounts involved exceeded or will exceed \$120,000; and
- any of the directors, nominees for election as a director, executive officers or holders of more than 5% of our voting equity, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest.

Compensation termination, change in control and other arrangements for our directors and named executive officers are described under "Executive Compensation."

***Director and Officer Indemnification and Insurance***

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us or will require us to indemnify each director (and in certain cases their related venture capital funds) and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer.



## GENERAL MATTERS

### Availability of Certain Documents

A copy of our Annual Report on Form 10-K for the year ended December 31, 2020 (the “2020 Annual Report on Form 10-K”) has been posted on our website along with this Proxy Statement at [www.edocumentview.com/RVTM](http://www.edocumentview.com/RVTM) or [www.rhythmtx.com](http://www.rhythmtx.com) under “Investors & Media” at “SEC Filings.” We will mail without charge, upon written request, a copy of our 2020 Annual Report on Form 10-K including financial statements and schedules thereto but excluding exhibits. A reasonable fee will be charged for copies of exhibits. Please send a written request to our Secretary at:

Rhythm Pharmaceuticals, Inc.  
222 Berkeley Street, 12th Floor  
Boston, MA 02116  
Attention: Secretary

You may also find a copy of this Proxy Statement and our 2020 Annual Report on Form 10-K (with exhibits) on the SEC’s website at [www.sec.gov](http://www.sec.gov).

### Stockholders Sharing an Address / Householding

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

Only one copy of our 2020 Annual Report and this Proxy Statement is being delivered to multiple stockholders sharing an address, unless we have received contrary instructions from one or more of the stockholders.

We will undertake to deliver promptly, upon written or oral request, a separate copy to a stockholder at a shared address to which a single copy of the 2020 Annual Report and this Proxy Statement was delivered. To receive a separate copy of our 2020 Annual Report or Proxy Statement, or to receive separate copies in the future, or if two stockholders sharing an address have received two copies of any of these documents and desire to only receive one, you may write the Secretary of Rhythm Pharmaceuticals, Inc. at our principal executive offices at 222 Berkeley Street, 12th Floor, Boston, MA 02116 or call the Secretary at (857) 264-4280.

### Stockholder Proposals and Nominations

*Stockholder Proposals to be Considered for Inclusion in our Proxy Materials.* Under Rule 14a-8 of the Exchange Act, to submit a proposal for inclusion in our Proxy Statement for the 2021 Annual Meeting of Stockholders, stockholder proposals must be received no later than close of business on December 28, 2021, by our Secretary at our principal executive offices at 222 Berkeley Street, 12th Floor, Boston, MA 02116.

*Other Proposals or Nominees for Presentation at the 2021 Annual Meeting.* Our bylaws provide that, for stockholder nominations to the Board or other business to be considered at the 2022 Annual Meeting of Stockholders, the stockholder must have given timely notice thereof in writing to the Secretary at Rhythm Pharmaceuticals, Inc., 222 Berkeley Street, 12th Floor, Boston, MA 02116 between February 9, 2022 and March 11, 2022 (assuming the date of the 2022 Annual Meeting of Stockholders is not so advanced or delayed as described in our bylaws). To be timely for the 2022 Annual Meeting of Stockholders, the stockholder’s notice must be delivered to or mailed and received by us not earlier than the close of business on the 120<sup>th</sup> day nor later than the close of business on the 90<sup>th</sup> day prior to the anniversary date of the previous year’s annual meeting, except that if the annual meeting is scheduled more than 30 days before or 60 days after such anniversary date, we must receive the notice not later than the close of business on the 10<sup>th</sup> day following the day on which we first provide notice or public disclosure of the date of the meeting. Such notice must provide the information required by Section 2.12 of our bylaws with respect to each nomination or matter the stockholder proposes to bring before the 2022 Annual Meeting of Stockholders.

**Other Matters**

As of the date of this Proxy Statement, the Board does not intend to present any matters other than those described herein at the Annual Meeting and is unaware of any matters to be presented by other parties. If other matters are properly brought before the meeting for action by the stockholders, proxies will be voted in accordance with the recommendation of the Board or, in the absence of such a recommendation, in accordance with the judgment of the proxy holder.

Whether or not you plan to attend the Annual Meeting virtually, we urge you to vote your shares promptly.

By Order of the Board of Directors

/s/ DAVID P. MEEKER, M.D.

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David P. Meeker, M.D.  
*Chairman of the Board, President and  
Chief Executive Officer*  
April 27, 2021



**Your vote matters – here’s how to vote!**

You may vote online or by phone instead of mailing this card.

**Online - During the Meeting**

Go to [www.meetingcenter.io/230218259](http://www.meetingcenter.io/230218259). To access the virtual meeting, you must have the information that is printed in the shaded bar located below. The password for the meeting is RYTM2021.

**Online - Before the Meeting**

Go to [www.investorvote.com/RYTM](http://www.investorvote.com/RYTM) or scan the QR code – login details are located in the shaded bar below.

**Phone**

Call toll free 1-800-652-VOTE (8683) within the USA, US territories and Canada

**Save paper, time and money!**

**Sign up for electronic delivery at**  
[www.investorvote.com/RYTM](http://www.investorvote.com/RYTM)

Using a **black ink** pen, mark your votes with an **X** as shown in this example. Please do not write outside the designated areas.



**2021 Annual Meeting Proxy Card**

▼ IF VOTING BY MAIL, SIGN, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

**A Proposals – The Board of Directors recommend a vote FOR all the nominees listed and FOR Proposal 2 and 3 and for every ONE YEAR for Proposal 4.**

1. Election of the Class I directors, each to serve for a three year term until the 2024 Annual Meeting of Stockholders and until their respective successors are duly elected and qualified.

Nominees

- 01 - Stuart A. Arbuckle
- 02 - Christophe R. Jean
- 03 - Lynn A. Tetraault, J.D.

**Mark here to vote FOR all nominees**

**Mark here to WITHHOLD vote from all nominees**

**For All EXCEPT** - To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.

2. Ratification of the appointment of Ernst & Young LLP as the independent registered public accounting firm for the Company for the fiscal year ending December 31, 2021.

For  Against  Abstain

3. Approval, on an advisory (non-binding) basis, of the compensation of the named executive officers of the Company (the "Say-on-Pay Vote").

For  Against  Abstain

4. Approval, on an advisory (non-binding) basis, of the frequency of future Say-on-Pay Votes.

1 Year  2 Years  3 Years  Abstain

**B Authorized Signatures – This section must be completed for your vote to count. Please date and sign below.**

Please sign exactly as name(s) appears hereon. Joint owners should each sign. When signing as attorney, executor, administrator, corporate officer, trustee, guardian, or custodian, please give full title.

Date (mm/dd/yyyy) – Please print date below.

/ /

Signature 1 – Please keep signature within the box.

Signature 2 – Please keep signature within the box.

1 U P X

The 2021 Annual Meeting of Stockholders of Rhythm Pharmaceuticals will be held on Wednesday, June 9, 2021 at 2:00 PM Eastern Time, virtually via the Internet at [www.meetingcenter.io/230218259](http://www.meetingcenter.io/230218259).

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

The password for this meeting is – RYTM2021.

Important notice regarding the Internet availability of proxy materials for the Annual Meeting of Stockholders. The Notice & Proxy Statement and Annual Report is available at: [www.investorvote.com/RYTM](http://www.investorvote.com/RYTM)

|   |   |   |
|---|---|---|
|  | <p><b>Small steps make an impact.</b></p> <p>Help the environment by consenting to receive electronic delivery, sign up at <a href="http://www.investorvote.com/RYTM">www.investorvote.com/RYTM</a></p> |  |
|---|---|---|

▼ IF VOTING BY MAIL, SIGN, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

**Rhythm Pharmaceuticals, Inc.** +

**2021 Annual Meeting of Stockholders**

**Proxy Solicited by Board of Directors for Annual Meeting – June 9, 2021, 2:00 PM Eastern Time**

The undersigned stockholder(s) of Rhythm Pharmaceuticals, Inc. hereby appoint(s) David P. Meeker, M.D. and Hunter C. Smith, or either of them, as proxies, each with the power to appoint his substitute, and hereby authorize(s) them to represent and to vote, as designated on the reverse side of this proxy card, all of the shares of Common stock of RHYTHM PHARMACEUTICALS, INC. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders to be held at 2:00 PM, EDT on June 9, 2021, via a live webcast at [www.meetingcenter.io/230218259](http://www.meetingcenter.io/230218259), and any adjournment, continuation or postponement thereof.

Such proxies are authorized to vote in their discretion (x) for the election of any person to the Board of Directors if any nominee named herein becomes unable to serve or for good cause will not serve, (y) on any matter that the Board of Directors did not know would be presented at the Annual Meeting by a reasonable time before the proxy solicitation was made, and (z) on such other business as may properly be brought before the meeting or any adjournment, continuation or postponement thereof.

**This proxy, when properly executed, will be voted in the manner directed herein by the undersigned stockholder(s).**

**If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.**

(Items to be voted appear on reverse side)

**C Non-Voting Items**

**Change of Address** – Please print new address below.

**Comments** – Please print your comments below.

■ +