

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

ARCTURUS THERAPEUTICS HOLDINGS INC.

(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
 Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

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

2) Aggregate number of securities to which transaction applies:

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- Fee paid previously with preliminary materials.
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1) Amount Previously Paid:

2) Form, Schedule or Registration Statement No.:

3) Filing Party:

4) Date Filed:



10628 Science Center Drive, Suite 250
San Diego, California 92121

To our Stockholders:

We are pleased to invite you to attend the 2021 annual meeting of stockholders of Arcturus Therapeutics Holdings Inc. (the "Annual Meeting"), to be held on June 18, 2021 at 9:00 a.m. Pacific Time, at <https://www.cstproxy.com/arcturusrx/2021>. The 2021 Annual Meeting will be a completely virtual meeting of stockholders, which will be conducted exclusively on the internet. No physical meeting will be held.

Details regarding how to attend the virtual annual meeting and the business to be conducted at the annual meeting are more fully described in the accompanying notice of annual meeting of stockholders and proxy statement.

Your vote is important. Regardless of whether you plan to attend the virtual annual meeting, it is important that your shares be represented and voted at the annual meeting, and we hope you will vote as soon as possible. You may vote by proxy over the Internet or by mail by following the instructions on the proxy card or voting instruction card. Voting over the Internet, written proxy or voting instruction card will ensure your representation at the annual meeting regardless of whether you attend the virtual annual meeting.

Thank you for your ongoing support of, and continued interest in, Arcturus.

Sincerely,

/s/ Dr. Peter Farrell
Dr. Peter Farrell
Chairman of the Board

/s/ Joseph E. Payne
Joseph E. Payne
President and Chief Executive Officer

San Diego, California

May 4, 2021



ARCTURUS THERAPEUTICS HOLDINGS INC.

**10628 Science Center Drive, Suite 250
San Diego, California 92121**

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

Time and Date 9:00 a.m. Pacific Time, on June 18, 2021.

Place Virtually via the Internet at <https://www.cstproxy.com/arcturusrx/2021>. No physical meeting will be held.

Items of Business (1) To elect Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet and Karah Parschauer to the Board of Directors (the "Board"), to serve until our next annual meeting of stockholders.

(2) To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2021.

(3) To transact other business that may properly come before the annual meeting.

Adjournments and Postponements Any action on the items of business described above may be considered at the annual meeting at the time and on the date specified above or at any time and date to which the annual meeting may be properly adjourned or postponed.

Record Date April 22, 2021. Only stockholders of record of our common stock as of April 22, 2021 are entitled to notice of and to vote at the annual meeting.

Meeting Admission You are invited to virtually attend the annual meeting if you are a stockholder of record or a beneficial owner of shares of our common stock, in each case, as of April 22, 2021. You may attend the Annual Meeting and vote during the Annual Meeting by visiting <https://www.cstproxy.com/arcturusrx/2021> and using your control number to enter the virtual Annual Meeting. If you are not a stockholder of record but hold shares as a beneficial owner in street name, you may be required to provide proof of beneficial ownership.

Voting **Your vote is very important.** You may vote by proxy over the Internet or by mail by following the instructions on the proxy card or voting instruction card.

For specific instructions on how to vote your shares, please refer to the section entitled "*Questions and Answers About the Proxy Materials and Annual Meeting*" in the accompanying proxy statement.

By order of the Board of Directors,

/s/ Dr. Peter Farrell

Dr. Peter Farrell
Chairman of the Board
San Diego, California
May 4, 2021

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**ARCTURUS THERAPEUTICS HOLDINGS INC. PROXY STATEMENT
FOR THE 2021 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON JUNE 18, 2021**

The information provided in the “Questions and Answers” format below is for your convenience only and is merely a summary of the information contained in this proxy statement. You should read the entire proxy statement carefully. In this proxy statement, we refer to Arcturus Therapeutics Holdings Inc., a Delaware corporation, as Arcturus, the Company, we, us, our and other similar pronouns.

**QUESTIONS AND ANSWERS
ABOUT THE PROXY MATERIALS AND ANNUAL MEETING**

Why am I receiving these materials?

This proxy statement and the enclosed form of proxy are furnished in connection with the solicitation of proxies by our Board for use at the 2021 annual meeting of stockholders of Arcturus Therapeutics Holdings Inc., a Delaware corporation, and any postponements or adjournments thereof. The annual meeting will be held on June 18, 2021 at 9:00 a.m. Pacific Time, at <https://www.cstproxy.com/arcturusrx/2021>.

Due to the public health impact of the coronavirus outbreak and to support the health and well-being of our employees, stockholders, and our community, the Annual Meeting will be a completely virtual meeting of stockholders, which will be conducted exclusively online at <https://www.cstproxy.com/arcturusrx/2021>.

Stockholders are invited to attend the virtual annual meeting and are requested to vote on the items of business described in this proxy statement. The proxy statement is being mailed on or about May 4, 2021 to all stockholders entitled to vote at the annual meeting.

Who may vote at the annual meeting?

Only stockholders of record as of the close of business on April 22, 2021, the record date, are entitled to vote at the annual meeting. As of the record date, there were 26,320,274 shares of our common stock issued and outstanding, held by 16 holders of record. We do not have cumulative voting rights for the election of directors.

How do I gain admission to the virtual annual meeting or vote my shares at the virtual annual meeting?

You are entitled to attend the virtual Annual Meeting only if you were a stockholder of record as of the record date for the Annual Meeting, which was April 22, 2021, or you hold a valid proxy for the Annual Meeting.

Registered Stockholders

If your shares are registered in your name with Arcturus’ transfer agent and you wish to attend the online-only virtual meeting, go to <https://www.cstproxy.com/arcturusrx/2021>, enter the control number you received on your proxy card or notice of the meeting and click on the “Click here to preregister for the online meeting” link at the top of the page. Just prior to the start of the meeting you will need to log back into the meeting site using your control number. Pre-registration is recommended but is not required in order to attend.

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

Beneficial stockholders who wish to attend the online-only virtual meeting must obtain a legal proxy by contacting their account representative at the bank, broker, or other nominee that holds their shares and e-mail a copy (a legible photograph is sufficient) of their legal proxy to our transfer agent, Continental Stock Transfer (“Continental”), proxy@continentalstock.com. Beneficial stockholders who e-mail a valid legal proxy will be issued a meeting control number that will allow them to register to attend and participate in the online-only meeting. After contacting Continental, a beneficial holder will receive an e-mail prior to the meeting with a link and instructions for entering the virtual meeting. Beneficial stockholders should contact Continental at least five business days prior to the meeting date.

How do I ask questions at the virtual Annual Meeting?

Stockholders have multiple opportunities to submit questions to the Company for the virtual Annual Meeting. Stockholders who wish to submit a question in advance may do so at <https://www.cstproxy.com/arcturusrx/2021>. Stockholders may also submit questions online during the meeting at <https://www.cstproxy.com/arcturusrx/2021>. Given time constraints, some questions may not be addressed during the virtual Annual Meeting.

What am I voting on?

You are being asked to vote on four proposals:

- the election of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet and Karah Parschauer to the Board, to serve until our next annual meeting of stockholders; and
- the ratification of the appointment of Ernst & Young LLP (“E&Y”) as our independent registered public accounting firm for our fiscal year ending December 31, 2021.

What if other matters are properly brought before the annual meeting?

As of the date of this proxy statement, we are not aware of any other matters that will be presented for consideration at the annual meeting. If any other matters are properly brought before the annual meeting, the persons named as proxies will be authorized to vote or otherwise act on those matters in accordance with their judgment. If for any reason any of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet or Karah Parschauer is not available as a candidate for director, the persons named as proxy holders will vote your proxy for such other candidate as may be nominated by our Board.

How does the Board recommend that I vote?

Our Board recommends that you vote your shares:

- **“FOR”** the election of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet and Karah Parschauer to the Board; and
- **“FOR”** the ratification of the appointment of E&Y as our independent registered public accounting firm for our fiscal year ending December 31, 2021.

Can I vote my shares without attending the virtual annual meeting?

Stockholder of Record: Shares Registered in Your Name

Stockholders of record may vote their shares by proxy, by mail or Internet. Whether or not you plan to attend the virtual Annual Meeting, we urge you to vote by proxy to ensure your vote is counted. You may choose one of the following voting methods to cast your vote.

1. To vote by mail, simply mark your proxy, date and sign it, and return it to the Company in the postage-paid envelope provided.
2. To vote by Internet, follow the instructions on the proxy card. Internet voting prior to the virtual annual meeting is available 24 hours a day, 7 days a week, until 11:59 p.m., Eastern time, on June 17, 2021.

The method by which you vote now will in no way limit your right to vote electronically at the virtual Annual Meeting if you later decide to attend. **However, as discussed above, if you are a beneficial owner, you may not vote your shares virtually at the annual meeting unless you obtain a legal proxy from your broker, bank or other nominee.**

Can I change my vote or revoke my proxy?

Stockholder of Record: Shares Registered in Your Name.

If you are a stockholder of record, you can change your vote or revoke your proxy at any time before the annual meeting by:

- entering a new vote over the Internet (until the applicable deadline set forth above);
- returning a later-dated proxy card (which automatically revokes the earlier proxy);
- providing a written notice of revocation to our corporate secretary at Arcturus Therapeutics Holdings Inc., 10628 Science Center Drive, Suite 250, San Diego, California 92121, Attn: Corporate Secretary; or
- attending the annual meeting and voting virtually.

Beneficial Owner: Shares Registered in the Name of a Broker, Bank or Other Nominee. If you are the beneficial owner of your shares, you must contact the broker, bank or other nominee holding your shares and follow their instructions to change your vote or revoke your proxy.

What is the effect of giving a proxy?

Proxies are solicited by, and on behalf of, our Board. Joseph E. Payne, our President and Chief Executive Officer, and Dr. Peter Farrell, our Chairman, have been designated as proxies for the annual meeting by our Board. When proxies are properly dated, executed and returned, the shares represented by such proxies will be voted at the annual meeting in accordance with the instruction of the stockholder. If no specific instructions are given, however, the shares will be voted in accordance with the recommendations of our Board as described above and, if any other matters are properly brought before the annual meeting, the shares will be voted in accordance with the proxies' judgment.

How many votes do I have?

On each matter to be voted upon at the annual meeting, each stockholder will be entitled to one vote for each share of our common stock held by them on the record date.

What is the quorum requirement for the annual meeting?

A quorum is the minimum number of shares required to be present or represented at the annual meeting for the meeting to be properly held under our bylaws and Delaware law. Holders of at least 33.33% of the voting power of our outstanding common stock entitled to vote at the annual meeting must be present in person or represented by proxy for us to hold and transact business at the annual meeting. On the record date, there were 26,320,274 shares outstanding and entitled to vote. Thus, the holders of at least 8,773,425 shares must be present in person or represented by proxy at the annual meeting to have a quorum.

Abstentions, "WITHHOLD" votes, and "broker non-votes" (as explained below) are counted as present and entitled to vote for purposes of determining a quorum. If there is no quorum, the meeting may be adjourned to another date by the chairman of the meeting or the holders of a majority of the voting power present in person or represented by proxy at the annual meeting and entitled to vote.

What are broker non-votes?

Broker non-votes occur when a beneficial owner of shares held in “street name” does not give instructions to the broker holding the shares as to how to vote on matters deemed “non-routine” and there is at least one “routine” matter to be voted upon at the meeting. Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the broker holding the shares. If the beneficial owner does not provide voting instructions, the broker can still vote the shares with respect to matters that are considered to be “routine,” but not with respect to “non-routine,” matters. In the event that a broker votes shares on the “routine” matters, but does not vote shares on the “non-routine” matters, those shares will be treated as broker non-votes with respect to the “non-routine” proposals. Accordingly, if you own shares through a nominee, such as a broker or bank, please be sure to instruct your nominee how to vote to ensure that your vote is counted on each of the proposals.

What matters are considered “routine” and “non-routine”?

The ratification of the appointment of E&Y as our independent registered public accounting firm for our fiscal year ending December 31, 2021 (Proposal No. 2) is considered routine under the rules of the Nasdaq Stock Market LLC (“Nasdaq”). The election of our directors (Proposal No. 1) is considered “non-routine” under the rules of Nasdaq.

What are the effects of abstentions and broker non-votes?

An abstention represents a stockholder’s affirmative choice to decline to vote on a proposal. If a stockholder indicates on its proxy card that it wishes to abstain from voting its shares, or if a broker, bank or other nominee holding its customers’ shares of record causes abstentions to be recorded for shares, these shares will be considered present and entitled to vote at the annual meeting. As a result, abstentions will be counted for purposes of determining the presence or absence of a quorum and will also count as votes against a proposal in cases where approval of the proposal requires the affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote at the annual meeting (Proposal No. 2). However, because the outcome of Proposal No. 1 (election of directors) will be determined by a plurality vote, abstentions will have no impact on the outcome of such proposal as long as a quorum exists.

Broker non-votes will be counted for purposes of calculating whether a quorum is present at the annual meeting, but will not be counted for purposes of determining the number of votes cast. Therefore, a broker non-vote will make a quorum more readily attainable but will not otherwise affect the outcome of the vote on any proposal.

What is the voting requirement to approve each of the proposals?

Proposal No. 1: Election of Directors. The election of each of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet and Karah Parschauer to the Board requires a plurality of the votes cast by the holders of shares present in person or represented by proxy at the annual meeting and entitled to vote on the election of a director. This means that if each of the nominees receives one or more votes, he or she will be elected as a director. You may vote “FOR” or “WITHHOLD” for each of the nominees. Because the outcome of this proposal will be determined by a plurality vote, shares voted “WITHHOLD” will not prevent each of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet and Karah Parschauer from being elected as a director. Shares voted “WITHHOLD” will count towards the quorum requirement for the annual meeting.

Proposal No. 2: Ratification of Appointment of E&Y. The ratification of the appointment of E&Y requires the affirmative vote of a majority of the shares present in person or represented by proxy at the annual meeting and entitled to vote thereon to be approved. You may vote “FOR,” “AGAINST,” or “ABSTAIN” on this proposal. Abstentions will count towards the quorum requirement for the annual meeting and will have the same effect as a vote against the proposal.

Who will count the votes?

A representative of Continental Stock Transfer and Trust Company will tabulate the votes and may act as inspector of elections.

What if I do not specify how my shares are to be voted or fail to provide timely directions to my broker, bank or other nominee?

Stockholder of Record: Shares Registered in Your Name. If you are a stockholder of record and you submit a proxy but you do not provide voting instructions, your shares will be voted:

- **“FOR”** the election of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet and Karah Parschauer to the Board; and
- **“FOR”** the ratification of the appointment of E&Y as our independent registered public accounting firm for our fiscal year ending December 31, 2021.

In addition, if any other matters are properly brought before the annual meeting, the persons named as proxies will be authorized to vote or otherwise act on those matters in accordance with their judgment.

Beneficial Owner: Shares Registered in the Name of a Broker, Bank or Other Nominee. Brokers, banks and other nominees holding shares of common stock in street name for customers are generally required to vote such shares in the manner directed by their customers. In the absence of timely directions, your broker, bank or other nominee will have discretion to vote your shares on our sole “routine” matter - Proposal No. 2 relating to ratifying the appointment of E&Y. Absent direction from you, however, your broker, bank or other nominee will not have the discretion to vote on Proposal No. 1 relating to the election of directors.

How can I contact Arcturus’ transfer agent?

You may contact our transfer agent by writing Continental Stock Transfer & Trust Company, 1 State Street, 30th Floor, New York, NY 10014. You may also contact our transfer agent via email at cstmail@continentalstock.com or by telephone at (212) 509-4000.

How are proxies solicited for the annual meeting, and who is paying for such solicitation?

Our Board is soliciting proxies for use at the annual meeting by means of the proxy materials. We will bear the entire cost of proxy solicitation, including the preparation, assembly, printing, mailing and distribution of the proxy materials. Copies of solicitation materials will also be made available upon request to brokers, banks and other nominees to forward to the beneficial owners of the shares held of record by such brokers, banks or other nominees. The original solicitation of proxies may be supplemented by solicitation by telephone, electronic communication, or other means by our directors, officers or employees. No additional compensation will be paid to these individuals for any such services, although we may reimburse such individuals for their reasonable out-of-pocket expenses in connection with such solicitation. We do not plan to retain a proxy solicitor to assist in the solicitation of proxies.

If you choose to access the proxy materials and/or vote over the Internet, or attend the virtual meeting, you are responsible for any Internet access charges you may incur.

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

We will announce preliminary voting results at the annual meeting. We will also disclose voting results on a Current Report on Form 8-K filed with the Securities and Exchange Commission (“SEC”), within four business days after the annual meeting. If final voting results are not available to us in time to file a Current Report on Form 8-K within four business days after the annual meeting, we will file a Current Report on Form 8-K to publish preliminary results and, within four business days after final results are known, file an additional Current Report on Form 8-K to publish the final results.

What does it mean if I receive more than one set of printed materials?

If you receive more than one set of printed materials, your shares may be registered in more than one name and/or are registered in different accounts. Please follow the voting instructions on each set of printed materials to ensure that all of your shares are voted.

I share an address with another stockholder, and we received only one printed copy of the proxy materials. How may I obtain an additional copy of the proxy materials?

We have adopted an SEC-approved procedure called “householding,” under which we can deliver a single copy of the proxy materials and annual report to multiple stockholders who share the same address unless we receive contrary instructions from one or more of the stockholders. This procedure reduces our printing and mailing costs. Stockholders who participate in householding will continue to be able to access and receive separate proxy cards. Upon written or oral request, we will undertake to promptly deliver a separate copy of the proxy materials and annual report to any stockholder at a shared address to which we delivered a single copy of any of these documents. To receive a separate copy, or, if you are receiving multiple copies, to request that we only send a single copy of next year’s proxy materials and annual report, you may contact us at the address below, or call us at 858-900-2660:

Arcturus Therapeutics Holdings Inc.
Attention: Investor Relations
10628 Science Center Drive, Suite 250
San Diego, California 92121

Stockholders who hold shares in street name may contact their brokerage firm, bank, broker-dealer or other nominee to request information about householding.

When are stockholder proposals due for next year’s annual meeting?

Please see the section entitled “*Proposals of Stockholders for 2022 Annual Meeting*” in this proxy statement for more information regarding the deadlines for the submission of stockholder proposals for our 2022 annual meeting.

BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Composition of the Board

Our Board is currently composed of seven members. The following table sets forth the names, ages, and certain other information for our directors.

| Name | Age | Position(s) | Director Since |
|----------------------|-----|---|----------------|
| Dr. Peter Farrell | 78 | Chairman of the Board | May 2018 |
| Joseph E. Payne | 49 | President, Chief Executive Officer and Director | March 2013 |
| Andy Sassine | 56 | Chief Financial Officer and Director | September 2019 |
| James Barlow | 62 | Director | May 2018 |
| Dr. Edward W. Holmes | 80 | Director | September 2019 |
| Dr. Magda Marquet | 62 | Director | May 2018 |
| Karah Parschauer | 43 | Director | June 2019 |

Dr. Peter Farrell is the Chairman of our Board, a position he has held since May 2018. In addition, Dr. Farrell is the founder, former long-term CEO and current Chairman of ResMed Inc. (NYSE:RMD). Dr. Farrell has been Chairman and a director of ResMed since 1989, when the company began as a management buyout of sleep technology from Baxter Healthcare. Peter was previously Foundation Director of the University of New South Wales (UNSW) Graduate School for Biomedical Engineering (1978-89) while simultaneously serving as Vice President of Research & Development for Baxter Healthcare in Tokyo (1984-89). Dr. Farrell served on the board of directors of NuVasive, Inc., a company focused on the surgical treatment of spine disorders. Dr. Farrell serves on the board of trustees of The Scripps Research Institute in La Jolla and is Chairman of the Boston-based POC NMR diagnostic company, WaveGuide. Since July 2019, Dr. Farrell has been a director of Evolus, Inc. (EOLS). Dr. Farrell is a fellow or honorary fellow of several professional bodies, including the US National Academy of Engineering. He was inducted as 1998 San Diego Entrepreneur of the Year for Health Sciences, 2001 Australian Entrepreneur of the Year and 2005 US National Entrepreneur of the Year for Health Sciences. Dr. Farrell was appointed to the Executive Council of the division of Sleep Medicine at Harvard Medical School in 1998, was appointed Vice Chairman in 2000 (2000-2010), became Chairman in 2010 and served in that capacity for three years. He is on various academic advisory boards including UCSD's Jacobs School of Engineering, where he was named the 2012 Gordon Fellow, UCSD's Rady Business School and the MIT Dean of Engineering's Advisory Council. Dr. Farrell holds a B.E. with honors in chemical engineering from the University of Sydney, an SM in chemical engineering from MIT, a PhD in bioengineering from the University of Washington, Seattle, and a DSc from UNSW for research which resulted in improved treatment for both hemodialysis and peritoneal dialysis patients. Dr. Farrell is nominated for re-election on our Board because of his significant experience as an executive and director of a number of companies in the healthcare sector.

Joseph E. Payne is our President and Chief Executive Officer, positions he has held since March 2013. Mr. Payne served on our predecessor's board since March 2013. He brings with him an exceptional track record of ushering novel therapeutics to the clinic including targeted RNA medicines utilizing lipid-mediated delivery technologies. Mr. Payne's background includes over 20 years of successful drug discovery experience at Merck Research Labs, DuPont Pharmaceuticals, Bristol-Myers Squibb, Kalypsys, and Nitto Denko Corporation as evidenced by over 40 publications and patents, and several investigational new drug (IND) clinical candidates. His academic training includes a Bachelor's Degree in Chemistry, magna cum laude from Brigham Young University, a Master of Science in Synthetic Organic Chemistry from the University of Calgary and Executive Training Certification from MIT Sloan School of Management. He currently serves on the board of directors of Vallon Pharmaceuticals Inc., a public clinical-stage company focused on the development and commercialization of novel abuse-deterrent medications for CNS disorders. Mr. Payne is nominated for re-election on our Board because of his position as our President and Chief Executive Officer and his significant experience in the pharmaceutical sector. As a member of our executive team, Mr. Payne serves a vital function in the link between management and our Board, enabling the Board to perform its oversight function with the benefits of management's perspective on the business.

Andy Sassine has served as our Chief Financial Officer since January 2019. Mr. Sassine served as one of our directors from May 2018 until June 2019, and was reelected as a director in September 2019. Mr. Sassine serves on the board of directors of iCAD Inc. (NASDAQ:ICAD), a leading provider of advanced image analysis, workflow solutions and radiation therapy for early detection and treatment of cancer, and on the board of directors of Exicure, Inc. (NASDAQ: XCUR), a pioneer in gene regulatory and immunotherapeutic drugs utilizing spherical nucleic acid technology. Mr. Sassine served in various positions at Fidelity Investments from 1999 to 2012, including, most recently as Portfolio Manager. Between 2004 and 2011, he managed the Fidelity Small Cap Stock Fund, the Fidelity International Small Cap Opportunities Fund and the Fidelity Advisor International Small Cap Opportunities Fund. Mr. Sassine joined Fidelity as a high yield research analyst, covering the Telecommunications, Satellite, Technology, Defense and Aerospace, and Restaurant Industries and in 2001, joined the international group as a research analyst covering small and mid-cap international stocks. Mr. Sassine has been a member of the Henry B. Tippie College of Business, University of Iowa Board of Advisors since 2009 and served on the Board of Trustees at the Clarke Schools for Hearing and Speech between 2009 and 2014. Mr. Sassine earned a Bachelor of Arts degree at the University of Iowa in 1987 and an MBA from the Wharton School at the University of Pennsylvania in 1993. Mr. Sassine is nominated for re-election on our Board because of his position as our Chief Financial Officer and his extensive knowledge and experience as a fund manager and board member of other similarly-sized companies.

James Barlow is a member of the board of directors of NAHS Holding, Inc., an Employee Stock Ownership Plan company, whose affiliates provide post-acute care, subacute care, short and long-term rehabilitation, and skilled nursing in the United States. Mr. Barlow is a C-level financial executive with more than 30 years of experience leading teams in the successful strategic achievement of financial and operational goals, and expertise in domestic and international operations, financial planning, forecasting and reporting, restructurings, business development and integrations, treasury and investor relations. As an Executive Officer (Principal Accounting Officer) at Allergan, Inc. from January 2002 to March 2015, he oversaw financial due diligence, integration and structuring for all significant asset purchases, sales, business combinations and licensing transactions, the spin-off of Advanced Medical Optics, the \$3.3 billion acquisition of Inamed Corporation and more than \$4.5 billion in other transactions. He ensured consistent application of corporate policies and procedures and alignment with global reporting and corporate compliance requirements, made recommendations globally to improve financial operations and participated in robust financial planning/forecasting activities. Prior to joining Allergan, Mr. Barlow served as Chief Financial Officer of Wynn Oil Company, a division of Parker Hannifin Corporation, during 2001, Treasurer and Controller of Wynn's International, Inc. from 1990 to 2000 and Vice President and Controller of Ford Equipment Leasing Company from 1986 to 1990. From 1983 to 1985 Mr. Barlow worked for the accounting firm Deloitte Haskins and Sells. Mr. Barlow received a Bachelor of Science degree in Accounting, graduating magna cum laude, from Brigham Young University and a Master of Accountancy, graduating with honors—high distinction, from Brigham Young University. He is a certified public accountant (inactive). Mr. Barlow is nominated for re-election on our Board of Directors because of his significant experience as an executive and director of a number of companies in the healthcare sector, and because of his financial and accounting expertise.

Dr. Edward W. Holmes has served as a member of our Board of Directors since September 2019. Dr. Holmes is currently a Distinguished Professor of Medicine at the University of California, Vice Chancellor/Dean of Health Sciences Emeritus at the University of California, San Diego, and CEO/President of the Sanford Consortium for Regenerative Medicine. Dr. Holmes has served as Chair of the Department of Medicine at the University of Pennsylvania, Vice President for Translational Medicine at Stanford University, and Vice Chancellor/Dean of Duke University School of Medicine. Dr. Holmes was the Executive Deputy Chairman of the Biomedical Research Council and the Executive Chairman of the National Medical Research Council in Singapore; he was a Senior Fellow in A*STAR and Advisor to the National Research Council of Singapore. He holds an appointment as the Lien Ying Chow Professor of Medicine at the Yong Loo Lin School of Medicine, National University of Singapore. For his contributions to the Singapore government, Dr. Holmes was made an Honorary Citizen in 2011, and he was awarded the President's Science and Technology Medal in 2017. Dr. Holmes also served on the Council of Advisors for the National Institute for Diabetes, Digestive, and Kidney Diseases of the National Institutes of Health. He served as Chair of the Research Advisory Board of GlaxoSmithKline, on the scientific advisory board of Ajinomoto and on the board of directors of Tularik, Inc. He also served on the Grand Challenges Explorations Innovation Review Panel for the Gates Foundation. He has been elected to membership in the American Society for Clinical Investigation, the Association of American Physicians, Fellow of the American Association for the Advancement of Science, and a member of the United States National Academy of Medicine. Dr. Holmes holds a Doctor of Medicine degree from the University of Pennsylvania. Dr. Holmes is nominated for re-election on our Board because of his significant experience in research, medicine and genetics.

Dr. Magda Marquet, Ph.D., joined our Board of Directors in 2018. Dr. Marquet has served as co-founder and co-chief executive officer of ALMA Life Sciences LLC, an early-stage healthcare investment firm, since 2013. Dr. Marquet also has been a co-founder of AltheaDx, a biotechnology company, since 2009. Dr. Marquet previously served as the co-founder and chairman of Althea Technologies, a biotechnology company, from 2009 to 2019, and previously served as its co-president and co-chief executive officer from 1998 to 2009. Prior to starting Althea Technologies, Dr. Marquet held several positions in product development and pharmaceutical development in companies such as Vical and Amylin Pharmaceuticals. Dr. Marquet served on the board of directors of Pfenex from 2019 until its acquisition by Ligand Pharmaceuticals in October 2020 and now serves on the board of directors of AnaptysBio since January 2021 as well as several private company boards. Dr. Marquet holds a Ph.D. in biochemical engineering from INSA/University of Toulouse, France. Dr. Marquet is nominated for re-election on our Board because of her significant experience as an executive and director of a number of companies in the life sciences sector, and because of her management and clinical expertise.

Karah Parschauer serves as the General Counsel and Executive Vice President of Ultragenyx Pharmaceutical Inc. (“Ultragenyx”), a significant stockholder of ours, since June 2016. In such capacity, Ms. Parschauer leads Ultragenyx’s legal, compliance and government affairs functions. Since July 2019, Ms. Parschauer has been a director of Evolus, Inc. (EOLS). Prior to Ultragenyx, Ms. Parschauer most recently served as Vice President, Associate General Counsel, at Allergan plc, a pharmaceutical company, from June 2005 until June 2016. Prior to Allergan, Ms. Parschauer was an attorney at Latham & Watkins LLP. Ms. Parschauer holds a B.A. from Miami University and a J.D. from Harvard Law School. Ms. Parschauer was first nominated to our Board as the designee of Ultragenyx. Ms. Parschauer is nominated for re-election on our Board because of our agreement with Ultragenyx to nominate one of its designees to our Board, her significant experience as an executive in the life sciences sector, and because of legal expertise.

Director Independence

The listing rules of Nasdaq require us to maintain a Board comprised of a majority of independent directors, as determined affirmatively by our Board. In addition, the Nasdaq listing rules require that, subject to specified exceptions, each member of our audit, compensation and nominating and corporate governance committees must be independent. Audit committee members and compensation committee members must also satisfy the independence criteria set forth in Rule 10A-3 and Rule 10C-1, respectively, under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Under the Nasdaq listing rules, a director will only qualify as an “independent director” if, in the opinion of our Board, the director does not have a relationship that would interfere with the exercise of independent judgment in carrying out his or her responsibilities.

Our Board has undertaken a review of the independence of our directors and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our Board has determined that none of Dr. Farrell, Mr. Barlow, Dr. Holmes and Dr. Marquet, representing four of our seven directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that they each are an “independent director” as that term is defined under the Nasdaq listing rules. Mr. Payne is not considered independent due to his position as our President and Chief Executive Officer. Mr. Sassine is not considered independent due to his position as our Chief Financial Officer. Ms. Parschauer is not considered independent due to her affiliation with Ultragenyx.

In making these determinations, our Board considered the relationships that each nonemployee director has with us and all other facts and circumstances our Board deemed relevant in determining their independence, including consulting relationships, family relationships and the beneficial ownership of our capital stock by each non-employee director.

Board Leadership Structure

Our Board is currently chaired by Dr. Farrell. Our Board believes that we and our stockholders are currently best served by this leadership structure. As Chairman, Dr. Farrell promotes unified leadership and direction for our Board and management and provides the critical leadership necessary for carrying out our strategic initiatives. Dr. Farrell, together with our Board's strong committee system and independent directors, allows our Board to maintain effective oversight of our business operations, including independent oversight of our financial statements, executive compensation, selection of director candidates, and corporate governance programs. We believe our current Board's leadership structure enhances its ability to effectively carry out its roles and responsibilities on behalf of our stockholders.

Role of Board in Risk Oversight Process

Our Board has an active role, as a whole and also at the committee level, in overseeing risk management. Our Board is responsible for general oversight and regular review of risk management, including financial, strategic, and operational risks. The compensation committee is responsible for overseeing the management of risks relating to our executive compensation plans and arrangements, and whether our compensation policies and programs have the potential to encourage excessive risk taking. The audit committee is responsible for overseeing the management of risks relating to accounting matters and financial reporting. The nominating and corporate governance committee is responsible for overseeing our corporate governance practices and the management of risks associated with Board independence and potential conflicts of interest. Although each committee is responsible for evaluating and overseeing the management of certain risks, the entire Board is regularly informed through discussions from committee members about such risks. The Board believes its leadership structure is consistent with and supports the administration of its risk oversight function.

Board Meetings and Committees

During 2020, our Board held six meetings, and each director attended at least 75% of the aggregate of (i) the total number of meetings of our Board held during the period for which he or she has been a director and (ii) the total number of meetings held by all committees of our Board on which he or she served during the periods that he or she served.

Our Board has established an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each of the committees of our Board is described below.

Audit Committee

Our audit committee members currently consist of Mr. Barlow, Dr. Holmes and Dr. Marquet. Mr. Barlow serves as the chairman. Each of the members of our audit committee is an independent director under the Nasdaq listing rules, satisfies the additional independence criteria for audit committee members and satisfies the requirements for financial literacy under the Nasdaq listing rules and Rule 10A-3 of the Exchange Act, as applicable.

Our Board has also determined that Mr. Barlow qualifies as an audit committee financial expert within the meaning of the applicable rules and regulations of the SEC and satisfies the financial sophistication requirements of the Nasdaq listing rules.

Our audit committee oversees our corporate accounting and financial reporting process and assists our Board in monitoring our financial systems and our legal and regulatory compliance. Our audit committee also:

- oversees the work of our independent auditors;
- approves the hiring, discharging and compensation of our independent auditors;
- approves engagements of the independent auditors to render any audit or permissible non-audit services;
- reviews the qualifications, independence and performance of the independent auditors;
- reviews our financial statements and our critical accounting policies and estimates;
- reviews the adequacy and effectiveness of our internal controls;

- reviews our policies with respect to risk assessment and risk management;
- reviews and monitors our policies and procedures relating to related person transactions; and
- reviews and discusses with management and the independent auditors the results of our annual audit, our quarterly financial statements and our publicly filed reports.

Our audit committee operates under a written charter approved by our Board and that satisfies the applicable rules and regulations of the SEC and the listing requirements of Nasdaq. The charter is available on the corporate governance section of our website, which is located at <http://ir.arcturusrx.com/governance-highlights>. Our audit committee held four meetings during 2020.

Compensation Committee

The members of our compensation committee are Dr. Marquet, Mr. Barlow and Dr. Farrell. Dr. Marquet is currently the chairman of our compensation committee. Our Board has determined that each member of our compensation committee is an independent director under the current rules of Nasdaq, satisfies the additional independence criteria for compensation committee members under Rule 10C-1 of the Exchange Act and the Nasdaq listing rules, is a “non-employee director” within the meaning of Rule 16b-3 under the Exchange Act, and is an “outside director” for purposes of Section 162(m) of the Internal Revenue Code of 1986, as amended (the “Code”).

Our compensation committee oversees our corporate compensation programs. The compensation committee also:

- reviews and recommends for Board approval policies, plans and arrangements relating to compensation and benefits of our officers and employees;
- reviews and recommends for Board approval corporate goals and objectives relevant to the compensation of our Chief Executive Officer and other executive officers;
- evaluates the performance of our executive officers in light of established goals and objectives;
- recommends compensation of our executive officers based on its evaluations;
- reviews director compensation levels and practices, and recommends, from time to time, changes in such compensation levels and practices to the Board;
- reviews and discusses with management the compensation disclosures required by SEC rules;
- engages a compensation consultant, legal counsel or other external advisors to advise on executive compensation and assess the independence of executive officers in accordance with Nasdaq;
- evaluates whether any compensation consultant, legal counsel or other external advisor has a conflict of interest in accordance with the SEC rules; and
- prepares the annual compensation committee report required by SEC rules.

Our compensation committee is also responsible for assessing and monitoring whether any of our compensation policies and programs have the potential to encourage excessive risk-taking.

Our compensation committee operates under a written charter approved by our Board and that satisfies the applicable rules and regulations of the SEC and the listing requirements of Nasdaq. The charter is available on the corporate governance section of our website, which is located at <http://ir.arcturusrx.com/governance-highlights>. Our compensation committee held seven meetings during 2020.

Compensation Committee Interlocks and Insider Participation

None of the members of the Compensation Committee was at any time one of our officers or employees. None of our executive officers serves as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as members of our Board or Compensation Committee.

Nominating and Corporate Governance Committee

The members of our nominating and corporate governance committee are Dr. Holmes, Dr. Farrell and Mr. Barlow. Dr. Holmes is the chairman of our nominating and corporate governance committee. Our Board has determined that each member of our nominating and corporate governance committee is independent under the Nasdaq listing rules.

Our nominating and corporate governance committee oversees and assists our Board in reviewing and recommending nominees for election as directors. The nominating and corporate governance committee also:

- evaluates and makes recommendations regarding the organization and governance of our Board and its committees;
- assesses the performance of members of our Board and makes recommendations regarding committee and chair assignments;
- recommends desired qualifications for Board membership and conducts searches for potential members of our Board; and
- reviews and makes recommendations with regard to our corporate governance guidelines.

Our nominating and corporate governance committee operates under a written charter approved by our Board and that satisfies the applicable rules and regulations of the SEC and the listing requirements of Nasdaq. The charter is available on the corporate governance section of our website, which is located at <http://ir.arcturusrx.com/governance-highlights>. Our nominating and corporate governance committee held one meeting during 2020.

Considerations in Evaluating Director Nominees

In its evaluation of director candidates, including the member or members of the Board eligible for reelection, our nominating and corporate governance committee will consider the following:

- The current size and composition of our Board and the needs of the Board and its respective committees;
- Factors such as character, integrity, judgment, diversity of experience, independence, area of expertise, corporate experience, length of service, potential conflicts of interest, other commitments, and the like. Our nominating and corporate governance committee evaluates these factors, among others, and does not assign any particular weighting or priority to any of these factors; and
- Other factors that our nominating and corporate governance committee may consider appropriate.

The nominating and corporate governance committee also focuses on issues of diversity, such as diversity in experience, international perspective, background, expertise, skills, age, gender, and ethnicity. The nominating and corporate governance committee does not have a formal policy with respect to diversity; however, our Board and the nominating and corporate governance committee believe that it is essential that members of our Board represent diverse viewpoints. Any nominee for a position on the Board must satisfy the following minimum qualifications:

- The highest levels of personal and professional ethics and integrity;
- Proven achievement and competence in the nominee's field and the ability to exercise sound business judgment;
- Skills that are complementary to those of the existing Board;
- The ability to assist and support management and make significant contributions to our success; and
- An understanding of the fiduciary responsibilities required of a member of the Board and the commitment of time and energy necessary to diligently carry out those responsibilities.

If our nominating and corporate governance committee determines that an additional or replacement director is required, the committee may take such measures as it considers appropriate in connection with its evaluation of a director candidate, including candidate interviews, inquiry of the person or persons making the recommendation or nomination, engagement of an outside search firm to gather additional information, or reliance on the knowledge of the members of the committee, Board or management.

After completing its review and evaluation of director candidates, our nominating and corporate governance committee recommends to our full Board the director nominee. Our nominating and corporate governance committee has discretion to decide which individuals to recommend for nomination as directors and our Board has the final authority in determining the selection of director candidates for nomination to our Board.

Requirements for Stockholder Recommendations of a Candidate to our Board

Our nominating and corporate governance committee will consider recommendations for candidates to our Board from our stockholders. A stockholder that wishes to recommend a candidate for consideration by the committee as a potential candidate for director must direct the recommendation in writing to Arcturus Therapeutics Holdings Inc., 10628 Science Center Drive, Suite 250, San Diego, California 92121, Attention: Corporate Secretary, and must include the candidate's name, home and business contact information, detailed biographical data, relevant qualifications, a signed letter from the candidate confirming willingness to serve, information regarding any relationships between us and the candidate and evidence of the recommending stockholder's ownership of our stock. Such recommendation must also include a statement from the recommending stockholder in support of the candidate, particularly within the context of the criteria for Board membership, including character, integrity, judgment, diversity of experience, independence, area of expertise, corporate experience, potential conflicts of interest, other commitments and personal references. Our nominating and corporate governance committee will consider the recommendation but will not be obligated to take any further action with respect to the recommendation. See "*Stockholder Proposals and Director Nominations Not for Inclusion in Proxy Statement*" elsewhere in this proxy statement for additional requirements on the timeliness for recommendations for candidates in connection with next year's annual meeting.

Communications with the Board

In cases where stockholders or other interested parties wish to communicate directly with our non-management directors, messages can be sent to Arcturus Therapeutics Holdings Inc., 10628 Science Center Drive, Suite 250, San Diego, California 92121, Attention: Corporate Secretary. Our corporate secretary monitors these communications and will provide a summary of all received messages to the Board at each regularly scheduled meeting of the Board. Our Board generally meets on a quarterly basis. Where the nature of a communication warrants, our corporate secretary may determine, in his judgment, to obtain the more immediate attention of the appropriate committee of the Board, non-management directors, independent advisors or our management, as our corporate secretary considers appropriate.

Our corporate secretary may decide in the exercise of his or her judgment whether a response to any stockholder or interested party communication is necessary.

This procedure for stockholder and other interested party communications with the non-management directors is administered by our nominating and corporate governance committee. This procedure does not apply to (i) communications to non-management directors from our officers or directors who are stockholders or (ii) stockholder proposals submitted pursuant to Rule 14a-8 under the Exchange Act.

Director Attendance at Annual Meetings

We do not have a formal policy regarding attendance by members of our Board at annual meetings of stockholders. We encourage, but do not require, directors to attend. All members of our Board attended the 2020 annual meeting of stockholders.

Code of Business Conduct and Ethics

Our Board has adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer and controller, or persons performing similar functions. A copy of the code of business conduct and ethics is available on the corporate governance section of our website, which is located at <http://ir.arcturusrx.com/governance-highlights>. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website.

Employee, Officer and Director Hedging

Pursuant to our Insider Trading Policy, officers, and employees are prohibited from engaging in any hedging transactions (including transactions involving options, puts, calls, prepaid variable forward contracts, equity swaps, collars and exchange funds, or other derivatives) that are designed to hedge or speculate on any change in the market value of our securities.

DIRECTOR COMPENSATION TABLE

The following table and related footnotes show the compensation paid during the year ended December 31, 2020 to our non-employee directors.

| Name | Fees Earned or Paid in Cash (\$) | Option Awards (\$) (1) | All Other Compensation (\$) | Total (\$) |
|----------------------|--|---------------------------|--------------------------------|------------|
| Dr. Peter Farrell | \$ 62,500 | \$ 192,804 | — | \$ 255,304 |
| Mr. James Barlow | \$ 56,875 | \$ 192,804 | — | \$ 249,679 |
| Dr. Magda Marquet | \$ 48,125 | \$ 192,804 | — | \$ 240,929 |
| Dr. Edward W. Holmes | \$ 45,135 | \$ 192,804 | — | \$ 237,939 |
| Ms. Karah Parschauer | \$ 31,250 | \$ 192,804 | — | \$ 224,054 |

(1) Represents annual option awards, which vest as set forth below in “Annual Equity Grants.”

Narrative to Director Compensation Table

Our director compensation policy 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.

Annual Cash Compensation

The annual retainers payable to non-employee directors for service on the Board and its committees are (i) \$35,000 for service on the Board, (ii) \$5,000 for service on each of the compensation committee and the nominating and corporate governance committee, (iii) \$7,500 for service on the audit committee, (iv) an additional \$20,000 for the Chairman of the Board, (v) an additional \$5,000 for the chairman of each of the compensation committee and the nominating and corporate governance committee, and (vi) an additional \$10,000 for the chairman of the audit committee.

Inaugural Equity Grants

Each non-employee director who joins the board receives an equity award of an option to purchase 20,000 shares of our common stock, which vests monthly over a two-year period from the date of grant.

Annual Equity Grants

Each non-employee director receives an annual equity award of an option to purchase 15,000 shares of our common stock, which vests monthly over a one-year period from the date of grant. New directors receive an annual equity grant that is prorated based on the number of days of their service in the year of grant.

PROPOSAL NUMBER 1

ELECTION OF DIRECTORS

Our Board is currently composed of seven directors. At the annual meeting, each director will be elected to our Board by the holders of our common stock. Each director's term continues until the election and qualification of his or her successor, or such director's earlier death, resignation or removal.

Nominees for Director

Our nominating and corporate governance committee recommended for nomination and our Board nominated each of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet and Karah Parschauer for election as a director at the annual meeting. If elected, each will serve as a director until our next annual meeting and until his or her respective successor is duly elected and qualified. For more information concerning each of the nominees, please see the section entitled "*Board of Directors and Corporate Governance.*"

Each of the nominees has agreed to serve if elected, and management has no reason to believe that he or she will be unavailable to serve. In the event he or she is unable or declines to serve as a director at the time of the annual meeting, proxies will be voted for any nominee who may be proposed by the nominating and corporate governance committee and designated by the present Board to fill the vacancy.

Required Vote

The directors elected to the Board will be elected by a plurality of the votes cast by the holders of shares present in person or represented by proxy and entitled to vote on the election of a director. In other words, if each of the nominees receives a single "FOR" vote, he or she will be elected as a director. Shares represented by executed proxies will be voted, if authority to do so is not expressly withheld, for the election of each of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet and Karah Parschauer as a director. Broker non-votes will have no effect on this proposal.

Board Recommendation

Our Board recommends a vote "FOR" the election to the Board of each of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet and Karah Parschauer as a director.

PROPOSAL NUMBER 2

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our audit committee has appointed E&Y as the independent registered public accounting firm to audit our consolidated financial statements for the year ending December 31, 2021.

Notwithstanding such appointment and even if our stockholders ratify such appointment, our audit committee, in its discretion, may appoint another independent registered public accounting firm at any time during the year if it believes that such a change would be in the best interests of Arcturus and its stockholders. Our audit committee is submitting the appointment of E&Y to our stockholders because we value our stockholders' views on such appointment and as a matter of good corporate governance. If the appointment is not ratified by our stockholders, our audit committee may consider appointing another independent registered public accounting firm. A representative of E&Y is expected to be virtually present at the annual meeting, and will be available to respond to appropriate questions following the virtual annual meeting, but is not expected to make a statement.

Fees Paid to the Independent Registered Public Accounting Firm

The following table sets forth the fees billed to us and our subsidiaries by Ernst & Young LLP, an independent registered public accounting firm, which served as our principal accountant for the years ended December 31, 2020 and 2019, respectively.

| (US Dollars in thousands) | 2020 | 2019 |
|---------------------------|----------|----------|
| Audit fees ⁽¹⁾ | \$ 1,212 | \$ 923 |
| Audit-related fees | — | — |
| Tax fees ⁽²⁾ | 213 | 426 |
| All other fees | — | — |
| Total | \$ 1,425 | \$ 1,349 |

- (1) Includes fees for professional services rendered by our principal accountant in connection with the audit of our consolidated annual financial statements and services that would normally be provided by our principal accountant in connection with statutory and regulatory filings or engagements.
- (2) Tax fees are fees for services (including tax services provided in connection with our redomicile to the United States) rendered by our respective principal accountants in connection with tax compliance, tax planning and tax advice.

All fees described above were pre-approved by the audit committee.

Auditor Independence

In 2020, there were no other professional services provided by E&Y that would have required our audit committee to consider their compatibility with maintaining the independence of E&Y.

Pre-Approval Policy

Our audit committee has a pre-approval policy for the engagement of our independent registered public accounting firm to perform certain audit and non-audit services. Pursuant to this policy, which is designed to assure that such engagements do not impair the independence of our auditors, the audit committee pre-approves annually a catalog of specific audit and non-audit services in the categories of audit services, audit-related services and tax services that may be performed by our independent registered public accounting firm. If a type of service, that is to be provided by our auditors, has not received such general pre-approval, it will require specific pre-approval by our audit committee. The policy prohibits retention of the independent registered public accounting firm to perform the prohibited non-audit functions defined in applicable SEC rules.

Required Vote

Ratification of the appointment of E&Y as our independent registered public accounting firm for the year ending December 31, 2021 requires the affirmative “FOR” vote of a majority of the shares present in person or represented by proxy at the annual meeting and entitled to vote on the proposal. You may vote “FOR,” “AGAINST,” or “ABSTAIN” on this proposal. Abstentions have the same effect as a vote against the proposal. Broker non-votes will not affect the outcome of voting on this proposal.

Board Recommendation

Our Board recommends a vote “FOR” the ratification of the appointment of E&Y as our independent registered public accounting firm for the year ending December 31, 2021.

REPORT OF THE AUDIT COMMITTEE

The audit committee is a committee of our Board comprised solely of independent directors as required by the listing standards of Nasdaq and rules and regulations of the SEC. The audit committee operates under a written charter approved by our Board, which is available on the corporate governance section of our web site at <http://ir.arcturusrx.com/governance-highlights>. The audit committee held four meetings in 2020. The meetings of the audit committee are designed to facilitate and encourage communication among the audit committee, us and our independent auditor. The composition of the audit committee, the attributes of its members and the responsibilities of the audit committee, as reflected in its charter, are intended to comply with applicable requirements for corporate audit committees. The audit committee reviews and assesses the adequacy of its charter and its performance on an annual basis.

With respect to our financial reporting process, our management is responsible for (i) establishing and maintaining internal controls and (ii) preparing our consolidated financial statements. Arcturus' independent registered public accounting firm is responsible for performing an independent audit of Arcturus' consolidated financial statements in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States), or PCAOB, and to issue a report thereon. It is the responsibility of the audit committee to oversee these activities. Specifically, the audit committee is responsible for the appointment, compensation, and general oversight of the external auditor, as well as fee negotiations with the external auditor. It is not the responsibility of the audit committee to prepare Arcturus financial statements. These are the fundamental responsibilities of management. In the performance of its oversight function, the audit committee has:

- reviewed and discussed the audited financial statements for fiscal year 2020 with the management of Arcturus;
- discussed with E&Y, Arcturus' independent registered public accounting firm for fiscal year 2020, the matters required to be discussed by Auditing Standard No. 16, Communications with Audit Committees, as amended (AICPA, Professional Standards, Vol. 1, section 380), and as adopted by the PCAOB in Rule 3200T; and
- received the written disclosures and the letter from E&Y as required by applicable requirements of the PCAOB regarding E&Y's communications with the audit committee concerning independence, and has discussed with E&Y its independence.

Based on the audit committee's review of the audited financial statements and the various discussions with management and E&Y, the audit committee recommended to our Board that the audited financial statements be included in our annual report on Form 10-K for the fiscal year ended December 31, 2020 for filing with the SEC.

James Barlow
Dr. Edward Holmes
Dr. Magda Marquet

This report of the audit committee shall not be deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulation 14A promulgated by the SEC or Section 18 of the Exchange Act, and shall not be deemed incorporated by reference into any prior or subsequent filing by Arcturus under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, except to the extent Arcturus specifically requests that the information be treated as "soliciting material" or specifically incorporates it by reference.

EXECUTIVE OFFICERS

The names of our executive officers, their ages, their positions with us and other biographical information are set forth below. There are no family relationships among any of our directors and executive officers.

| Name | Age | Position(s) |
|---------------------|-----|--|
| Joseph E. Payne | 49 | President and Chief Executive Officer |
| Andy Sassine | 56 | Chief Financial Officer |
| Padmanabh Chivukula | 42 | Chief Scientific Officer and Chief Operating Officer |
| Steven Hughes | 54 | Chief Development Officer |
| Lance Kurata | 51 | Chief Legal Officer |

Biographical information for Joseph E. Payne and Andy Sassine is set forth above in the section titled “*Board of Directors and Corporate Governance.*”

Dr. Padmanabh Chivukula has served as our Chief Scientific Officer and Chief Operating Officer since 2013. Dr. Chivukula has an exceptional and technically solid foundation in nanoparticle technology. From 2008 until February 2013, Dr. Chivukula was employed by Nitto Denko Corporation, where his titles included Group Leader and Chief Scientist. Dr. Chivukula brings over 15 years of experience in drug delivery and therapeutic drug development, including leading the polymeric RNAi research department at Nitto. Dr. Chivukula has a Ph.D. in Pharmaceutical Chemistry from the University of Utah where he specialized in nanoparticle technology.

Dr. Steven Hughes has served as our Chief Development Officer since January 2, 2020. Dr. Hughes has over 20 years of experience building and leading clinical development and medical affairs teams at various biopharma companies. He has been involved in more than 50 clinical trials with more than 25 drugs across multiple therapeutic areas including cardiovascular, metabolic, neurology, oncology, infectious diseases, rheumatology, ophthalmology and several rare diseases, in the U.S. and globally. Dr. Hughes has also played a key role in the submission of multiple NDA/MAA applications. Most recently he served as the Chief Medical Officer of Organovo where he led the non-clinical and clinical development teams developing bioprinted tissues for treatment of hepatic and renal diseases. Prior to that he was Chief Clinical Development Officer at Ionis Pharmaceuticals, where he led a team that managed the global clinical development of multiple drugs across several therapeutic areas. He has also held positions at Biogen Idec, CSL Behring and Sanofi. Dr. Hughes is Board Certified in Pharmaceutical Medicine and received his medical degree from Imperial College, London. He also has an MBA from Imperial College Business School.

Lance Kurata has served as our Chief Legal Officer since August 2020. Prior to joining Arcturus, Mr. Kurata was Partner and Chair of West Coast Technology Transactions at Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, PC. From 2002 to 2006, he was a partner at Fish & Richardson, where he was a member of the corporate group and nationwide head of the technology transactions practice. From 1996 until 2002, Mr. Kurata practiced corporate law at Brobeck Phleger & Harrison, specializing in strategic collaborations, public and private financings, mergers and acquisitions and corporate governance. Mr. Kurata obtained his B.A. from University of California, Los Angeles and he earned his J.D. from Stanford Law School.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Introduction

The Compensation Discussion and Analysis is designed to provide our stockholders with an understanding of our executive compensation philosophy and decision making process. It discusses the principles underlying the structure of the compensation arrangements for our Chief Executive Officer, our Chief Financial Officer, and our other three most highly compensated executive officers who were serving as executive officers on December 31, 2020 (the “NEOs”). Unless noted otherwise, any reference within the Compensation Discussion and Analysis to decisions made by the board of directors refers to the decisions made by the independent members of the board of directors only. This Compensation Discussion and Analysis primarily focuses on the compensation of our NEOs, as identified in the table below.

| Name | Title |
|-------------------------|---|
| Joseph E. Payne | President and Chief Executive Officer |
| Dr. Padmanabh Chivukula | Chief Scientific Officer, Chief Operating Officer |
| Andy Sassine | Chief Financial Officer |
| Dr. Steven Hughes | Chief Medical Officer |
| Lance Kurata | Chief Legal Officer |

Our current compensation programs for the NEOs are determined and approved by our board of directors, acting at the recommendation of the compensation committee. As described in more detail above under the caption “Board Meetings and Committees—Compensation Committee,” the compensation committee takes into account Mr. Payne’s recommendations regarding the compensation for our executive officers, although Mr. Payne does not participate in the deliberations or determinations of his own compensation. The other NEOs did not have any role in determining or recommending the form or amount of compensation paid to any of our executive officers.

Company Performance Highlights

In assessing the appropriate level of compensation for our executive officers, we take into account the overall performance of the Company against the specific annual corporate objectives established by the board of directors at the beginning of that year, as well as qualitative considerations related to drug discovery and development, drug commercialization, and financial activities (including financing). The biotechnology industry is characterized by stock price volatility and, as a result, our focus on pay-for-performance is based on an assessment of the level of the Company’s achievement against those specific objectives. In addition to considering the Company’s accomplishments and progress each year, we also think it is important to consider the long-term performance of the executive leadership team. We believe that the skills, creativity and dedication of executive leadership have led to numerous significant accomplishments, including the following in 2020:

ARCT-021, Vaccine Candidate for SARS-CoV-2

- Ongoing Phase 2 clinical study and planning for Phase 3 development.
- Supportive data from Duke-NUS Medical School submitted for publication.
- Completed Phase 1/2 clinical study and supporting preclinical studies.
- Executed Agreement with Singapore; \$45 million limited recourse loan facility and up to \$175 million in vaccine purchases.
- Executed Definitive Supply Agreement with the Israeli Ministry of Health;
- Provided for manufacturing of lyophilized ARCT-021 to support Phase 3 and initial commercial supply.

ARCT-810, Therapeutic Candidate for Ornithine Transcarbamylase (OTC) Deficiency

- Initiated a Phase 1b study in the U.S. and Canada.

ARCT-032, Therapeutic Candidate for Cystic Fibrosis

- Completed pre-IND interaction with FDA.

Stock Price

- Closing price on December 31, 2019 was \$10.87 and closing price on December 3, 2020 was \$43.38, which was just under 300% return to shareholders during the year.

The above accomplishments, together with accomplishments achieved by the Company since inception, directly resulted in the Company (1) building and advancing a significant drug candidate pipeline; (2) building an organization and infrastructure designed to execute on our mission of becoming a leading RNA medicines company; (3) raising over \$420 million in capital in 2020; and (4) establishing collaborations that have significant future economic potential based on milestone payments, royalties and sales. We believe that the compensation programs and awards to our NEOs should be evaluated within the context of these significant accomplishments and performance over a sustained period of time.

Compensation Program Objectives and Philosophy

In order to continue the execution and growth of our business as described above, we believe that it is vital that we continue to retain and attract experienced and skilled senior leadership by offering competitive base compensation and benefits, significant performance-based incentives, and the potential for long-term equity compensation. Our goal is to structure a meaningful portion of executive compensation such that it will only have value if management is successful in building significant long-term value for our stockholders.

Our current executive compensation programs are intended to achieve the following four fundamental goals and objectives: (1) to incentivize and reward sustained long-term performance by aligning significant elements of executive compensation with our stockholders' interests, (2) to attract and retain an experienced, highly qualified and motivated executive management team to lead our business, (3) to provide economic rewards for achieving high levels of our performance and individual contribution, and (4) to pay compensation that is competitive, taking into account the experience, skills and performance of the executives required to build and maintain the organization necessary to support our mission to become a leading RNA medicines company.

When structuring our executive compensation programs to achieve our goals and objectives, we are guided by the following philosophies:

- *Alignment with Stockholders' Interests.* Our compensation model should be designed to align the economic interests of our executives with those of our stockholders.
- *Pay for Performance.* Our compensation model should deliver compensation at or above industry market levels for exceptional performance and deliver compensation below the market levels of our industry for years in which the Company does not perform well. Further, all of the time-based equity awards are granted as stock options, which we believe are also inherently performance based as they only provide value to the executive if stockholders realize a positive return on their investment.
- *Total Rewards Program.* The total compensation program must balance pay for performance elements with selected static non-performance based elements in order to create a total rewards program that is competitive and will help us attract and retain highly qualified and motivated executives.
- *Flexible Approach.* The level of compensation provided to executives must take into account each executive's role, experience, tenure, performance and expected contributions to our future success.
- *Focus on Achievement of Business Goals.* The compensation program should be structured so that executives are appropriately incentivized to achieve our short- and long-term goals that are viewed as fundamental to driving value in our business.

We believe that each element of our executive compensation program helps us to achieve one or more of our compensation goals and objectives. For example, we believe that performance-based short-term cash incentive opportunities in combination with equity incentive awards that are earned over time and increase in value only if the Company becomes more valuable are the best way to align our executives' interests with those of our stockholders and pay for performance. We believe that the long-term vesting schedules applicable to equity awards also serve as a significant retention incentive as well as a focus on building long-term stockholder value. Providing base salaries and certain severance protections helps us ensure that we are providing a competitive compensation package that will permit us to attract and retain qualified, experienced and highly skilled executives. We believe that we have created a total compensation program that combines short- and long-term components, cash and equity, and fixed and contingent payments, in proportions that are appropriate to achieve each of our fundamental goals and objectives as described above. We also believe that the structure of our compensation program provides incentives to reward our executives for achieving our long-term goals and objectives, some of the most important of which are building and advancing a robust drug candidate pipeline, entering into new collaboration partnerships and executing on our current collaborations, increasing the skill level and efficiency of our organization and improving our financial performance. We believe that our compensation program has helped us both recruit and retain superior executive talent to continue to build an organization capable of executing on our mission to become a leading RNA medicines company.

Timing of Annual Equity Incentive Grants.

The Company moved the timing of its annual equity grant for 2020 from February 2021 to December 2020. The effect of the change in grant timing is that two annual grants were awarded in fiscal 2020. The Company views the two annual grants in 2020 as discrete annual grants relating to two separate annual performance periods in 2019 and 2020, rather than as a combined basket of equity compensation for 2020. We expect that this will be a one-time event and the anticipated future grant schedule for annual equity awards will be December of each year, with the next annual compensation cycle occurring in December 2021 to reflect 2021 performance.

The compensation committee has historically reviewed and approved annual compensation, including equity awards to our NEOs, in January and February of each year. The decisions in January and February depend primarily on our assessment of performance for the year that had just ended. Accordingly, our annual compensation review and approval decisions for the calendar 2019 performance period took place in February 2020. SEC reporting rules required disclosure of the February grant in the year of grant, rather than the year for which we assessed performance that was the basis of our equity compensation determination. In 2020, the compensation committee decided to move the timing of its compensation cycle with our compensation review and approval determinations to December of the calendar year performance period. We made this change in our practice in part to (i) align our performance review and compensation decisions with our calendar year business planning cycle, including the approval of the corporate goals and operating plan for the following calendar year, and also to (ii) disclose awards that reflect 2020 performance are disclosed in 2020 rather than in 2021.

The "Summary Compensation Table" (on page 36) includes not only the value of equity awards granted for the 2019 performance period which were granted in February 2020, but also the value of equity awards for the 2020 performance period which we granted in December 2020. The timing of the awards resulted in two years of annual equity grants being included in one calendar year even though the equity grants were made ten months apart and reflect compensation awarded based on performance in different years. The February 2020 grant was made in recognition of 2019 performance, while the December 2020 grant was made based on our assessment of 2020 performance.

Relationship between Company Performance and Executive Pay

The biotechnology industry is generally thought to be characterized by a higher risk profile and by more potentially binary business outcomes than more established industries, which historically has led to high stock volatility for biotechnology companies. The Company ended 2020 with a closing stock price of \$43.38 which represented a three-year annual return of 76%, a two year annual return of 209%, and a one year annual return of 299%. The value of equity in the Summary Compensation Table is inflated by options with a higher exercise price in December 2020 that are currently underwater and do not provide any immediate in-the-money value to the executives at the current stock price. This is an outcome that we view as naturally aligning pay and performance, and that is misleading to shareholders because the underwater options with a high exercise price reflect the majority of disclosed executive compensation value as a result of the manner in which they are reported using the Black Scholes option pricing model.

Executive Compensation Practices

Below we provide a summary of our executive compensation practices, including both the practices that we follow and those that we do not follow, in each case based on whether we believe they serve the long-term interests of our stockholders.

Core Compensation Principles and Practices

- ⌋ *Pay-for-Performance.* A substantial majority of the compensation awarded to our NEOs is either tied to specific company-wide goals or has been made in the form of stock option awards that will only have value if the price of our stock increases after the grant date.
- ⌋ *Regular Peer Group Review.* The compensation committee regularly reviews the Company’s compensation peer group. This review occurred most recently in December 2020.
- ⌋ *Double Trigger.* Our severance policy (the “Severance Policy”) only provides our executive officers with acceleration of unvested equity awards held by them if they are terminated (without cause or constructively) in connection with a change of control transaction or within 18 months following a change of control transaction. We do not provide accelerated vesting of equity awards on a change in control alone.
- ⌋ *Modest Perquisites.* We provide only modest perquisites and nearly all of those perquisites are in the form of insurance benefits that we believe are in line with industry practice for executive compensation. We do not provide perquisites such as personal travel reimbursement, tax services or financial planning.
- ⌋ *Reasonable Post-Employment and Change of Control Severance Arrangements.* We believe that our severance arrangements with our executive officers are reasonable and in line with industry practice.
- ⌋ *Regular Review of Share Utilization for Equity Compensation.* We regularly evaluate equity incentive plan share reserve pool utilization by reviewing overhang levels (the dilutive impact of equity compensation on stockholders) and annual run rates (the aggregate shares awarded as a percentage of total outstanding shares).
- ⌋ *Mitigate Undue Risk.* We have designed our executive compensation program to mitigate undue risk associated with compensation by, among other things, awarding a substantial portion of executive compensation in the form of long-term compensation with multi-year vesting (i.e. stock options with multi-year vesting requirements).
- ⌋ *Utilize Independent Compensation Consulting Firm.* The compensation committee regularly consults with an independent compensation consulting firm which provides no other services to the Company. For more information on our independent compensation consultant, please see Board Meetings and Committees—Compensation Committee” above.
- ⌋ *Shareholder Outreach.* We regularly meet with our shareholders to get feedback and discuss items of concern to them, including executive compensation.
- x *No Stock Option Repricing.* Our equity incentive plans prohibit us from repricing, exchanging or otherwise providing value for underwater stock options.
- x *No Full Value Equity Awards.* We do not award “full value” restricted stock units or restricted stock to our NEOs. Stock options are our preferred form of long-term incentive compensation because we believe they are more performance based than other equity vehicles, with value delivered only if the stock price of our common stock appreciates following the stock option grant date.
- x *No Accelerated Vesting of Equity Awards on Termination.* Whether one of our NEOs is terminated by the Company without cause or resigns for a good reason, our severance arrangements do not provide for accelerated vesting of outstanding equity awards (other than a qualifying termination after a change in control as provided in the Severance Policy).
- x *No Inclusion of the Value of Equity Awards in Severance Calculations.* Our post-termination and change of control severance arrangements do not include the value of equity awards in annual compensation for purposes of determining cash severance amounts.
- x *No Fixed Employment Terms or Guaranteed Future Compensation.* We do not have employment contracts with our executive officers that provide for a guaranteed term of employment nor guaranteed future compensation levels.
- x *No Funded Pension or Retirement Plans.* We do not provide any guaranteed or funded retirement plan benefits.
- x *No Hedging Transactions, Share Pledging, or Short Sales by Employees or Directors.* Our insider trading policy prohibits any employee or director from engaging in hedging transactions, short sales or trading in any derivative security of the Company. This policy also prohibits pledging our shares on margin.

Role of Stockholder Say-on-Pay Votes

We provide our stockholders with the opportunity periodically to cast an advisory vote on our executive compensation program (referred to as a “say-on-pay vote”). At our annual meeting of stockholders held in October 2019, approximately 99% of the votes cast on the say-on-pay proposal were voted in favor of the proposal, and a majority of stockholders selected “Three Years” for their preference as to how frequently we should seek future advisory votes on the compensation of our named executive officers. As a result, we will not be seeking an advisory say-on-pay vote at this year’s annual meeting of stockholders. After considering the 2019 say-on-pay vote, the compensation committee reaffirmed the design and elements of our executive compensation program and did not make any changes to our executive compensation program. The board of directors and compensation committee will continue to consider the outcome of our say-on-pay proposals and direct stockholder feedback when making future compensation decisions for the NEOs.

Design and Elements of Our Compensation Program

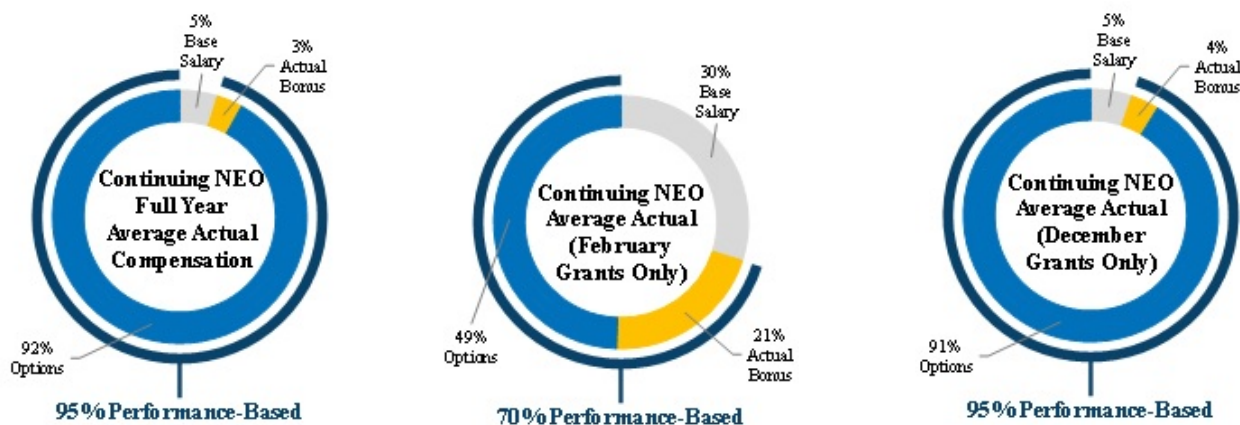
The material elements of our current executive compensation programs for NEOs consist primarily of the following:

1. *Base Salary.* Each NEO earned an annual base salary during 2020.
2. *Short-Term Incentive Compensation.* Each NEO was eligible to earn an incentive cash compensation payment for the 2020 performance period based on qualitative assessment of the Company’s progress against its corporate goals and his individual performance and/or contribution to such progress.
3. *Long-Term Incentive Compensation.* Each NEO was awarded stock option grants during 2020 (two annual equity grants due to the timing discussed above), subject to a time-based vesting schedule.

While we review peer group company data regarding the mix of current and long-term incentive compensation and between cash and non-cash compensation, we have not adopted any formal policies or guidelines for allocations among these various compensation elements. However, consistent with our pay for performance philosophy, we believe that a greater component of overall direct compensation for the NEOs relative to other employees should be performance-based. The table below shows the percentage of total direct compensation of the NEOs tied to Company goals or linked to the value of our stock price.

| Impact of Transition | Performance-Based Pay |
|--|-----------------------|
| 2020 Full Year (Transition with Two Annual Grants) | 95% - 96% |
| 2020 with February Grants Only | 66% - 73% |
| 2020 with December Grants Only | 94% - 96% |

As illustrated in the accompanying charts, in 2020, approximately 95% of total direct compensation to the continuing NEOs (i.e., excluding 2020 new hires Mr. Kurata and Dr. Hughes, whose compensation was not indicative of the 2020 compensation program) was performance-based and not guaranteed (approximately 70% or 95% if only February or December grants are taken into consideration, respectively).



Use of Peer Company Data

We regularly review the compensation practices of our peer group companies identified below in response to the fast moving nature of the biotechnology industry, including merger and acquisition activity, and changes in product pipeline and business stage. In determining the appropriate peer companies, we consider the following factors: geographical region, company stage of development, company size and market capitalization.

As a result of the Company having a combination of multiple drug candidates in diverse therapeutic areas, a mix of wholly-owned and partnered drug candidates, and a technology platform with the potential to enable multiple drug candidates in future years, it is very challenging to identify truly comparable companies. Most of the peer companies were pre-commercial in 2019 and are RNA companies and/or focused on drug discovery for oncology, or for rare diseases. In May 2020, our compensation committee determined the composition of our peer group, with the assistance of its outside compensation consultant. At the time the peer group decisions were made, our market capitalization was approximately \$1.13 billion, which placed our size slightly above the median of the peer group, which was \$932 million on average during 2019 (the period reflected by their compensation disclosures available during 2020). This was viewed as reasonable because we were not comparing ourselves to generally larger companies. The peer group of companies reviewed when determining 2020 compensation decisions consisted of the following companies:

| | |
|---------------------------------|-----------------------------|
| AnaptysBio, Inc. | Intellia Therapeutics, Inc. |
| Arena Pharmaceuticals, Inc. | Kura Oncology, Inc. |
| Arrowhead Pharmaceuticals, Inc. | Mirati Therapeutics, Inc. |
| Cytokinetics, Inc. | Odonate Therapeutics, Inc. |
| Dicerna Pharmaceuticals, Inc. | RegenXBio Inc. |
| Editas Medicine Inc | Traverse Therapeutics, Inc. |
| Epizyme, Inc. | Sangamo Therapeutics, Inc. |
| Fate Therapeutics, Inc. | Sorrento Therapeutics, Inc. |
| Geron Corporation | Viking Therapeutics, Inc. |
| Heron Therapeutics, Inc. | Wave Life Sciences Ltd. |
| Inovio Pharmaceuticals, Inc. | |

Although we reviewed and discussed the compensation data for the peer group companies to help inform executive compensation decisions, we do not set compensation at any specific level or percentile based solely on the peer group data. The peer group data is used by us as only one reference point taken into account in making compensation decisions. We do not use peer group or industry survey data as a standalone tool for setting compensation due to the unique aspects of our business and the need to attract and retain particular highly qualified executives with unique experience, skills and other individual facts and circumstances. However, we generally believe that reviewing and analyzing this information is an important component of our executive compensation decision-making process.

Base Salary

Base salary is the initial building block of compensation for the NEOs because it provides the executives with a specified minimum level of cash compensation, which we believe is important to attract and retain executives. We determine base salary by considering competitive pay practices, cost of labor and compensation trends, individual performance and promotions, level and scope of responsibility, experience and internal pay equity. However, we do not use a formula or assign a particular weight to any one factor. Rather, the determination of base salary levels is subjective, and we set base salaries that we believe are reasonably competitive. In February 2020, we reviewed the base salaries of the NEOs and increased them by 6.7% to 11.1%. All of our NEOs had salaries that were below the median of similar officers in the 2020 peer group. The base salary earned by each NEO during 2020 is reported below in the Summary Compensation Table.

Short-Term Incentive Compensation

Incentive Compensation Policy. We believe that our short-term incentive compensation program (“Incentive Compensation Policy”) for the NEOs rewards the achievement of important short-term objectives that advance us toward our long-term strategic objectives. Our Incentive Compensation Policy applies to all executive officers. Consistent with our compensation philosophy of paying for performance and maintaining a flexible approach, we use the Incentive Compensation Policy to incentivize the NEOs to achieve important corporate goals while at the same time encouraging and rewarding excellent individual performance by recognizing and rewarding differences in performance between individual executives.

Plan Design. The board of directors establishes a small number of important annual corporate goals each year that include clinical development, research, manufacturing, organizational and financial goals which we believe are essential to building long-term stockholder value and are used to assess annual corporate performance. The corporate objectives are not weighted formally nor were they formally tied to a cash bonus plan in 2020. At the end of 2020, the progress against the corporate objectives and against unexpected areas of opportunity, specifically the progress toward development of a vaccine for COVID-19 and financing events, were considered when determining executive bonuses. rate performance rating.

After 2020 corporate performance was determined, then the individual performance and future contribution of NEOs was reviewed by the compensation committee in consultation with Mr. Payne (other than his own performance). Mr. Payne's individual performance is separately reviewed by the compensation committee

Target Annual Short-Term Incentive Compensation for 2020. The NEOs were each assigned a target annual incentive for 2020 ranging from 40% to 60% of base salary. The table below shows the target annual incentive assigned by us to each NEO for 2020 both as a dollar amount and as a percentage of base salary.

| Name | Target Annual Incentive for 2020 (\$) | Target Annual Incentive for 2020 (% of Base Salary) |
|-------------------------|---|--|
| Joseph E. Payne | 300,000 | 60% |
| Dr. Padmanabh Chivukula | 160,000 | 40% |
| Andy Sassine | 160,000 | 40% |
| Dr. Steven Hughes | 166,000 | 40% |
| Lance Kurata | 150,000 | 40% |

Company Performance Objectives. The 2020 corporate objectives were as follows:

- For ARCT-810, filing of an IND or CTA; completion of first-in-human, first-in-patient and healthy volunteer trials; and multiple patients recruited.
- LUNAR-CF preclinical candidate selected (or LUNAR-CF partnered).
- Add new technology to the LUNAR or STARR platforms.
- Publication in a high-impact peer reviewed journal.
- Receive \$25 million in non-dilutive financing through strategic alliance partners.
- Execute two transactions to supply product candidates.
- Coverage from two additional analysts.
- Raise \$40 million in equity financing.
- Timely filing of all EDGAR filings.
- Compliance with SOX 404.
- Provide ongoing tracking of actual expenses against budget.

These corporate goals served as the corporate performance objectives under the Company's Incentive Compensation Policy and were also used as one data point for purposes of the compensation committee determining the NEO's 2020 cash bonuses. We believe this mix of corporate goals was not only an appropriate measure of achievement in 2020, but also represents objectives important to building the long-term foundation of our business.

Actual Annual Incentives Earned for 2020

Management prepared a report on status of achievement of the 2020 corporate objectives that was reviewed by the board of directors. The board of directors determined that all of the corporate goals identified above were met, resulting in a 100% aggregate achievement. The board of directors also recognized certain accomplishments directly related to management efforts including those listed above in *Company Performance Highlights*. In particular, the Committee considered the rapid progress towards development of a COVID-19 vaccine using the Company's RNA technology and financings. In recognition of these accomplishments, the board concluded a discretionary upward adjustment of 50% was warranted, resulting in a corporate performance rating of 150% for 2020.

The compensation committee, in consultation with Mr. Payne, determined that the individual contributions of each NEO were critical to the Company's successful 2020 performance. As a result, bonuses for 2020 were paid to each of the NEOs, in an amount equal to 150% of each's target bonus. The amounts of each NEO's bonuses for the 2020 fiscal year are reported in the Summary Compensation Table.

Long-Term Incentive Compensation: Equity Awards

Overview. In accordance with our objective of aligning executive compensation with our stockholders' interests, our current long-term incentive program for the NEOs generally consists of an annual award of equity compensation that is typically subject to a multi-year vesting schedule. We believe that equity compensation is a very effective tool to align the interests of our NEOs, who have significant responsibility for driving our success, with the interests of our stockholders. Stock options are our preferred form of long-term incentive compensation because we believe they are inherently performance-based, with value delivered only if the price of our common stock appreciates following the grant.

In 2020, we made equity awards in February and then at the end of the year in December, which was a one or two month acceleration for release of the February 2021 awards, so that such awards were in fiscal 2020 and match the time period for which they reflect performance (i.e., fiscal 2020 performance is reflected in the awards at the end of fiscal 2020). Under the SEC executive compensation disclosure rules, the February annual grant and the December annual grant are both reported as 2020 compensation even though the compensation committee views the February 2020 grant as compensation to recognize 2019 performance and the December 2020 grant as compensation to recognize 2020 performance. The Company expects to grant awards in December 2021 and to maintain this annual grant schedule for a period of time because it allows the disclosed award value to reflect performance in the year for which it is relevant. The compensation disclosure for 2020 is inflated as a result of two annual grants being made in one fiscal year (for performance in both 2019 and 2020), which is not expected to recur in 2021.

The value of the second annual option grant is further inflated by the high stock price at the time of the award and our Compensation Committee does not view the disclosed value as the actual value of the compensation awarded. The December 2020 options were granted at a price of \$99.29, which sets the reported value under the applicable option pricing model at approximately \$11 million. However, with the volatility of our stock price, these options have considerably less value at the December 31, 2020 share price of \$43.38. We view this as a pay for performance outcome.

Alignment with performance for shareholders can be illustrated using the grant provided to the CEO. The December 2020 CEO option award was for 175,000 shares and the exercise price was \$99.29 per share. The option accounting and proxy disclosures rules provide for a grant date fair value of this award of approximately \$11 million dollars using a Black-Scholes model, even though the option exercise price was dramatically higher than the year end stock price. If the same grant for options to purchase 175,000 shares had been awarded on the February 18, 2020 grant date when the stock price was \$14.12, and assuming the February 18, 2020 option fair value of \$9.11 per option share, then the disclosed compensation value would have been about \$1.6 million (approximately \$9.4 million lower compensation value). This hypothetical February 2020 option award for 175,000 options would have provided the CEO with in-the-money gain of approximately \$5.1 million using the December 31, 2020 closing price of \$43.38. The Compensation Committee recognizes that the December 2020 option awards that inflate Summary Compensation Table pay levels are not necessarily providing current value to executives and will not provide value unless the stock price increases above \$99.29 per share.

Actual Long-Term Incentives Awarded. The NEOs received an annual equity award in February 2020 in connection with the 2019 annual performance review. Our view is that the equity awards granted in February 2020 primarily represent compensation earned for performance during the preceding year, even though SEC proxy rules require that the grant date fair value be included as compensation in the annual period in which the equity grant is awarded, i.e. 2020 instead of 2019. (Under SEC proxy rules, this differs from the way annual cash bonus awards are categorized, even though both types of compensation were awarded at the same time).

In 2020, the compensation committee decided to move the timing of its compensation cycle with our compensation review and approval determinations to December of the calendar year performance period. We made this change in our practice to align our performance review and compensation decisions with our calendar year business planning cycle including the approval of the corporate goals and operating plan for the following calendar year and to ensure that the equity award for 2020 performance is disclosed in 2020 rather than in 2021.

In determining the grant levels for these awards, we consider a number of factors, including an assessment of individual performance, competitive market practices, the number of unvested stock options held by the executive and average exercise price (i.e. the retention value) of these options, the individual's overall contributions, and stockholder dilution. However, we do not use a formula or assign a particular weight to any one factor in determining equity award levels. Rather, the determination of equity grant levels is subjective, and the compensation committee awards equity grants at levels it believes in its judgment are reasonably competitive and consistent with our philosophy that a substantial portion of our executives' compensation should be performance-based and help to further link the interests of our executives with those of our stockholders. 25% of the annual stock option awards vest on the first anniversary of the grant date, with the remainder vesting in equal increments on each successive one-month anniversary thereafter for the next 36 months. This provides a retention incentive for the executive as well as an additional incentive to help create value for our stockholders.

The number of shares of common stock subject to stock options granted to each NEO during 2020 and the grant-date fair value of these equity awards is presented in the Grants of Plan Based Awards in 2020 table below. The option awards were partly determined based on the annual rate of ownership sharing with executives, and were not entirely based on a grant value. The grant values of the December 2020 awards increased because the stock price increased. The rates of ownership sharing were in a market range, with our CEO near the median if measured as an option sharing rate as a percent of our shares outstanding at the time. The options are naturally performance-based because they require an increase after grant to be valuable. The December 2020 options are not currently in-the-money, despite their reported value in the Summary Compensation Table. The Company has no intentions to change the December 2020 option awards so that the exercise price is lower and believes that stock price performance will dictate the outcome of the options in a manner that is aligned with the interests of stockholders. A description of the material terms of the 2020 stock option awards is presented in the narrative section following that table.

Severance and Change of Control Benefits

If the employment of an NEO is terminated by us without cause or by the NEO for a designated good reason outside of the context of a change of control transaction, the NEO would be entitled to severance benefits under his employment agreement with the Company. These severance benefits include a cash severance payment based on the NEO's then-current base salary and a pro rata amount of his annual incentive bonus, and payment of COBRA premiums. In order to attract and retain these NEOs in a competitive environment for highly skilled senior executive talent in the biotechnology and pharmaceutical industry and to provide an incentive to obtain a broad release of claims in favor of the Company, we determined it was beneficial to offer each of them severance protection in the case of a termination without cause or constructive termination outside the context of a change of control transaction. These NEOs would also be entitled to certain termination benefits upon a termination of employment because of death or disability.

In April 2021, after consulting with the compensation committee's independent compensation consultant, the Board adopted a written Severance Policy covering all senior executives of the Company. Termination and change of control payments under the Severance Policy are without duplication of any severance payments provided for in an individual employment agreement (such that the higher amount would apply). The primary changes effected by the Severance Policy are to (i) implement new and more internally equitable amounts for cash severance, (ii) make certain clean-up changes to the severance provisions in the NEOs' employment agreements (the "Employment Agreements"), and (iii) require non-solicitation and non-disparagement restrictive covenants as a condition of receiving severance. The Severance Policy became effective May 1, 2021.

Pursuant to the Severance Policy, the NEOs are entitled to certain severance benefits if their employment is terminated in connection with a change of control. Severance benefits under the Severance Policy are structured on a "double-trigger" basis, meaning that the executive must experience a termination without cause or resign for a specifically defined good reason in connection with the change of control in order for severance benefits to become payable under the Severance Policy. Like the severance benefits under the Employment Agreements, we believe that these change of control severance benefits are an important element of a competitive total compensation program. Additionally, we believe that providing change of control benefits should eliminate, or at least reduce, any reluctance of our NEOs and other key employees covered by the Severance Policy to diligently consider and pursue potential change of control opportunities that may be in the best interests of our stockholders. At the same time, by providing change of control benefits only upon the occurrence of an additional triggering event occurring in connection with the change of control transaction resulting in a job loss, we believe that this Severance Policy helps preserve the value of our key personnel for any potential acquiror.

Under the Severance Policy, the executive would be entitled to accelerated equity award vesting if their employment is terminated within 18 months of a change of control. The other severance benefits under the Severance Policy are generally similar to the severance benefits described above, provided that (i) the executive is also entitled to a lump sum payment in an amount equal to his target annual bonus for the year of termination, (ii) pro-rata target bonus for the year of termination, and (iii) Company-paid COBRA coverage is extended by several additional months.

The “Potential Payments Upon Termination or Change of Control” section below describes and quantifies the severance and other benefits potentially payable to the NEOs.

Other Benefits

We believe that establishing competitive benefit packages for employees is an important factor in attracting and retaining highly-qualified personnel, including the NEOs. The NEOs are eligible to participate in all of our employee benefit plans, such as medical, dental, vision, group life, disability insurance, commuting benefits, employee stock purchase plan and the 401(k) plan, in each case generally on the same basis as other employees. We do not offer a tax-qualified defined-benefit pension plan or any non-qualified defined benefit retirement plans, nor do we provide material perquisites to our executives.

Section 162(m) Policy

Generally, Section 162(m) of the Code (“Section 162(m)”) disallows a federal income tax deduction for public corporations of remuneration in excess of \$1 million paid in any fiscal year to certain specified executive officers. For taxable years beginning before January 1, 2018 (i) these executive officers consisted of a public corporation’s chief executive officer and up to three other executive officers (other than the chief financial officer) whose compensation is required to be disclosed to stockholders under the Exchange Act because they are our most highly-compensated executive officers and (ii) qualifying “performance-based compensation” was not subject to this deduction limit if specified requirements are met.

Pursuant to the Tax Cuts and Jobs Act of 2017, which was signed into law on December 22, 2017 (the “Tax Act”), the remuneration of a public corporation’s chief financial officer is also subject to the deduction limit. In addition, subject to certain transition rules (which apply to remuneration provided pursuant to written binding contracts which were in effect on November 2, 2017 and which are not subsequently modified in any material respect), for taxable years beginning after December 31, 2017, the exemption from the deduction limit for “performance-based compensation” is no longer available. In addition, under the Tax Act, once an executive becomes a “covered employee” under Section 162(m), the individual will continue to be a “covered employee” as long as he or she remains employed by the company. Consequently, all remuneration in excess of \$1 million paid to a covered executive will not be deductible unless it qualifies for transitional relief applicable to certain binding, written performance-based compensation arrangements that were in place as November 2, 2017 or transitional relief for applicable to certain newly public companies. These changes will cause more of our compensation to be non-deductible under Section 162(m) and will eliminate the Company’s ability to structure performance-based awards to be exempt from Section 162(m).

In designing our executive compensation program and determining the compensation of our executive officers, including our named executive officers, the compensation committee considers a variety of factors, including the potential impact of the Section 162(m) deduction limit. While the compensation committee is mindful of the benefit of the full deductibility of compensation, it believes that we should not be constrained by the requirements of Section 162(m) where those requirements would impair our flexibility in compensating our executive officers in a manner that can best promote our corporate objectives. Therefore, the compensation committee has not adopted a policy that would require that all compensation be deductible, though it does consider the deductibility of compensation when making compensation decisions. The compensation committee may authorize compensation payments that are not fully tax deductible if it believes that such payments are appropriate to attract and retain executive talent or meet other business objectives.

Processes and Procedures for Executive Compensation

Our compensation committee assists the Board in discharging its responsibilities relating to oversight of the compensation of our chief executive officer and our other executive officers, including reviewing and making recommendations to our Board with respect to the compensation, plans, policies and programs for our chief executive officer and our other executive officers and administering our equity compensation plans for our executive officers and employees.

Our compensation committee annually reviews the compensation, plans, policies and programs for our chief executive officer and our other executive officers. In connection therewith, our compensation committee considers, among other things, each executive officer's performance in light of established individual and corporate goals and objectives and the recommendations of our chief executive officer. In particular, our compensation committee considers the recommendations of our chief executive officer when reviewing base salary and incentive performance compensation levels of our executive officers and when setting specific individual and corporate performance targets under our annual executive incentive bonus plan for our executive officers. Our chief executive officer has no input and is not present during voting or deliberations about his compensation. Our compensation committee may delegate its authority to a subcommittee, but it may not delegate any power or authority required by agreement, law, regulation or listing standard to be exercised by the compensation committee as a whole.

Our nominating and corporate governance committee has authority to review and recommend to the Board compensation programs for our outside directors, although this role has been predominantly undertaken by our compensation committee, in consultation with members of our full Board. Management generally does not have a role in the setting of director compensation. Our nominating and corporate governance committee may delegate its authority to a subcommittee, but it may not delegate any power or authority required by agreement, law, regulation or listing standard to be exercised by the nominating and corporate governance committee as a whole.

Summary Compensation Table

Our named executive officers (“NEOs”) for the year ended December 31, 2020, which consist of all individuals who served as our principal executive officer and principal financial officer during 2020 and our three other most highly compensated executive officers who were serving as executive officers at the end of the last completed fiscal year, are Joseph E. Payne, our President and Chief Executive Officer; Dr. Padmanabh Chivukula, our Chief Scientific Officer and Chief Operating Officer; Andy Sassine, our Chief Financial Officer; Dr. Steven Hughes, our Chief Medical Officer and Lance Kurata, our Chief Legal Officer.

| Name and Principal Position | Year | Salary (\$) | Bonus (\$) ⁽¹⁾ | Option Awards (\$) ⁽²⁾ | All Other Compensation (\$) | Total (\$) |
|---|------|-------------|---------------------------|-----------------------------------|-----------------------------|------------|
| Joseph E. Payne <i>President and Chief Executive Officer, Director</i> | 2020 | 500,000 | 450,000 | 11,911,500 | — | 12,861,500 |
| | 2019 | 450,000 | 243,000 | 472,818 | — | 1,165,818 |
| | 2018 | 425,000 | 372,532 | 636,888 | 1,252,624 ⁽³⁾ | 2,687,044 |
| Dr. Padmanabh Chivukula <i>Chief Scientific Officer, Chief Operating Officer</i> | 2020 | 400,000 | 240,000 | 6,832,600 | — | 7,472,600 |
| | 2019 | 370,000 | 133,200 | 132,956 | — | 636,156 |
| | 2018 | 350,000 | 83,233 | 424,592 | 515,080 ⁽⁴⁾ | 1,372,905 |
| Andy Sassine, <i>Chief Financial Officer</i> ⁽⁵⁾ | 2020 | 400,000 | 240,000 | 7,014,800 | — | 7,654,800 |
| | 2019 | 375,000 | 150,000 | 801,880 | — | 1,326,880 |
| | 2018 | 120,000 | — | 126,340 | — | 246,340 |
| Dr. Steven Hughes <i>Chief Medical Officer</i> ⁽⁶⁾ | 2020 | 415,000 | 249,000 | 4,212,625 | — | 4,876,625 |
| | 2019 | 299,873 | — | — | — | 299,873 |
| Lance Kurata ⁽⁷⁾ <i>Chief Legal Officer</i> | 2020 | 156,250 | 67,500 | 4,916,800 | — | 5,140,550 |

(1) Bonuses in this column represent discretionary cash bonuses approved by the Board and/or compensation committee of the Board.

(2) Includes the value of stock options determined using the grant date fair value computed in accordance with FASB ASC 718. See Note 9 to the consolidated financial statements of the Company for the fiscal years ended December 31, 2019 and December 31, 2020 in the Form 10-K filed by the Company on March 1, 2021, for additional description of the assumptions used in the valuation. Amounts in this column do not reflect the actual economic value that may be realized by the applicable NEO.

(3) Includes \$14,625 of fees for services as a member of the Board in 2018 and reimbursement of \$1,237,999 representing certain expenses incurred by us in connection with the previously disclosed dispute between management and former Company directors.

(4) Represents severance amount given to Dr. Chivukula and reimbursement of certain expenses incurred by us in connection with the previously disclosed dispute between management and former Company directors.

(5) Mr. Sassine served as our Interim Chief Financial Officer from August 24, 2018 through December 31, 2018 and received options to purchase 20,000 shares of common stock (the “Interim CFO Grant”). As of January 1, 2019, Mr. Sassine was appointed as our Chief Financial Officer and was granted options to purchase 100,000 shares of our common stock. The unvested portion of the Interim CFO Grant was cancelled on January 1, 2019.

(6) Dr. Hughes served as a consultant from August 2019 through December 2019 and received consulting fees prior to joining the Company as a full-time employee on January 1, 2020.

(7) Mr. Kurata’s employment as Chief Legal Officer commenced on August 10, 2020.

Annual Bonus

We offer our NEOs the opportunity to earn annual discretionary cash bonuses, as determined by the Board or the compensation committee annually at their discretion. Actual bonus amounts for our NEOs are determined by our compensation committee after consideration of Mr. Payne's recommendations (except with respect to his individual bonus). Our CEO makes recommendations to the compensation committee regarding annual bonus payouts for the executive officers other than himself and does not participate in any discussions with the compensation committee regarding his own compensation.

For 2020, annual bonuses were based on such factors as the Board and the compensation committee deemed appropriate, including a variety of individual and Company priorities and objectives, as well as the individual NEO's performance as it related to his area of responsibility. In December 2020, based on a review of the 2020 milestones for the Company and each of the NEOs, we awarded bonuses for 2019 service to each NEO equal to 150% of their target amounts. The bonus awarded to Mr. Kurata was prorated based on the number of days that he was employed in 2020.

Equity-Based Awards

Our equity-based incentive awards are designed to align our interests with those of our employees and consultants, including our named executive officers. Our Board or our compensation committee approves equity grants. Vesting of equity awards is generally tied to continuous service with us and serves as an additional retention measure. Our executives may be awarded an initial new hire grant upon commencement of service and may receive additional grants, as the board of directors or compensation committee determines appropriate, in order to incentivize and/or reward such executives. We have traditionally granted stock options to our named executive officers under our equity incentive plans.

In December 2020, based on a review of the 2020 milestones for the Company and each of the NEOs, we awarded an option to each of Mr. Payne, Mr. Sassine, Dr. Chivukula, Dr. Hughes and Mr. Kurata to purchase 175,000, 100,000, 100,000, 50,000 and 25,000 shares of our common stock, respectively, with an exercise price of \$99.29 per share. Twenty-five percent of each option will vest on the first anniversary of the grant date, with the remainder vesting in equal increments on each successive one-month anniversary thereafter for the next thirty-six months.

2020 GRANTS OF PLAN-BASED AWARDS

The following table provides certain information regarding equity awards granted to our named executive officers during the fiscal year ended December 31, 2020. The equity awards were granted under the 2019 Omnibus Equity Incentive Plan.

| Name | Grant Date | All Other Option Awards: Number of Securities Underlying Options (#) | Exercise Price of Option Awards (\$) | Grant Date Fair Value of Option Awards (\$) ⁽¹⁾ |
|-------------------------|------------|--|--------------------------------------|--|
| Joseph Payne | 2/18/2020 | 100,000 | 14.12 | 9.11 |
| | 12/18/2020 | 175,000 | 99.29 | 62.86 |
| Dr. Padmanabh Chivukula | 2/18/2020 | 60,000 | 14.12 | 9.11 |
| | 12/18/2020 | 100,000 | 99.29 | 62.86 |
| Andy Sassine | 2/18/2020 | 80,000 | 14.12 | 9.11 |
| | 12/18/2020 | 100,000 | 99.29 | 62.86 |
| Dr. Steven Hughes | 2/18/2020 | 75,000 | 14.12 | 9.11 |
| | 11/11/2020 | 12,500 | 48.84 | 30.91 |
| | 12/18/2020 | 50,000 | 99.29 | 62.86 |
| Lance Kurata | 8/10/2020 | 90,000 | 58.91 | 37.17 |
| | 12/18/2020 | 25,000 | 99.29 | 62.86 |

(1) Represents the grant date fair value of option awards granted during the fiscal year ended December 31, 2020, calculated in accordance with FASB ASC Topic 718.

2020 OPTION EXERCISES AND STOCK VESTED

None of the NEOs exercised any options during the fiscal year ended December 31, 2020. None of the NEOs held any restricted stock awards during the fiscal year ended December 31, 2020.

Current Agreements With Our Named Executive Officers

The termination and change of control payments provided for under the employment agreements summarized below are without duplication of any severance payments provided for under the Company's Severance Policy (such that the higher amount would apply). For a summary of the Severance Policy, see pages 33 and 34.

Joseph E. Payne

On June 13, 2019, we entered into an Employment Agreement (the "Payne Agreement") with Joseph E. Payne, our President and Chief Executive Officer. The Payne Agreement provides for the following compensation and benefits to Mr. Payne:

- An annual base salary of \$450,000, paid in bi-monthly installments.
- An annual bonus of up to 60% of annual base salary. The bonus will be subject to the achievement of certain criteria, as determined by our Board and compensation committee.
- Reimbursement of travel and other expenses incurred by Mr. Payne in connection with his service as President and Chief Executive Officer.
- For termination without cause or resignation for good reason unrelated to change in control of us, Mr. Payne will be entitled to receive (i) severance pay in the form of continuation of payment installments of Mr. Payne's final base salary for 12 months, (ii) a pro rata portion of his annual bonus (as calculated by the compensation committee and Board at the end of the bonus period and paid in a lump sum when annual bonuses are paid to other executive officers), and (iii) payment of certain health insurance coverage premiums (COBRA) for up to 18 months following his termination of employment.
- For termination without cause or resignation for good reason in connection with a change in control us, Mr. Payne will be entitled to receive a lump sum severance payment equal to (i) one year's annual base salary, (ii) an amount equal to his target annual bonus for the year of termination and (iii) an amount equal to a pro rata portion of his target annual bonus for the year of termination. Mr. Payne will also be entitled to payment of certain health insurance coverage premiums (COBRA) for up to 18 months following termination. In addition, Mr. Payne's unvested option awards and any other unvested time-based vesting equity awards then held by him will accelerate and become immediately vested and exercisable, if applicable, and no longer subject to repurchase, if applicable, upon such termination and will remain exercisable, if applicable, following Mr. Payne's termination as set forth in the applicable equity award.

Andy Sassine

On June 13, 2019, we entered into an Employment Agreement (the "Sassine Agreement") with Andy Sassine, our Chief Financial Officer. The Sassine Agreement provides for the following compensation and benefits to Mr. Sassine:

- An annual base salary of \$375,000, paid in bi-monthly installments.
- An annual bonus of up to 40% of annual base salary. The bonus will be subject to the achievement of certain criteria, as determined by our Board and compensation committee.
- Reimbursement of travel and other expenses incurred by Mr. Sassine in connection with his service as Chief Financial Officer.
- For termination without cause or resignation for good reason unrelated to change in control of us, Mr. Sassine will be entitled to receive (i) severance pay in the form of continuation of payment installments of Mr. Sassine's final base salary for 9 months, (ii) a pro rata portion of his annual bonus (as calculated by the compensation committee and Board at the end of the bonus period and paid in a lump sum when annual bonuses are paid to other executive officers), and (iii) payment of certain health insurance coverage premiums (COBRA) for up to 9 months following his termination of employment.
- For termination without cause or resignation for good reason in connection with a change in control of us, Mr. Sassine will be entitled to receive a lump sum severance payment equal to (i) one year's annual base salary, (ii) an amount equal to his target annual bonus for the year of termination and (iii) an amount equal to a pro rata portion of his target annual bonus for the year of termination. Mr. Sassine will also be entitled to payment of certain health insurance coverage premiums (COBRA) for up to 12 months following termination. In addition, Mr. Sassine's unvested option awards and any other unvested time-based vesting equity awards then held by him will accelerate and become immediately vested and exercisable, if applicable, and no longer subject to repurchase, if applicable, upon such termination and will remain exercisable, if applicable, following Mr. Sassine's termination as set forth in the applicable equity award.

Dr. Padmanabh Chivukula

On June 13, 2019, we entered into an Employment Agreement (the “Chivukula Agreement”) with Dr. Padmanabh Chivukula, our Chief Scientific Officer and Chief Operating Officer. The Chivukula Agreement provides for the following compensation and benefits to Dr. Chivukula:

- An annual base salary of \$370,000, paid in bi-monthly installments.
- An annual bonus of up to 40% of annual base salary. The bonus will be subject to the achievement of certain criteria, as determined by the Board and compensation committee.
- Reimbursement of travel and other expenses incurred by Dr. Chivukula in connection with his service as Chief Scientific Officer and Chief Operating Officer.
- For termination without cause or resignation for good reason unrelated to change in control of us, Dr. Chivukula will be entitled to receive (i) severance pay in the form of continuation of payment installments of Dr. Chivukula’s final base salary for 12 months, (ii) a pro rata portion of his annual bonus (as calculated by the Compensation Committee and Board at the end of the bonus period and paid in a lump sum when annual bonuses are paid to other executive officers), and (iii) payment of certain health insurance coverage premiums (COBRA) for up to 18 months following his termination of employment.
- For termination without cause or resignation for good reason in connection with a change in control of us, Dr. Chivukula will be entitled to receive a lump sum severance payment equal to (i) one year’s annual base salary, (ii) an amount equal to his target annual bonus for the year of termination and (iii) an amount equal to a pro rata portion of his target annual bonus for the year of termination. Dr. Chivukula will also be entitled to payment of certain health insurance coverage premiums (COBRA) for up to eighteen (18) months following termination. In addition, Dr. Chivukula’s unvested option award and any other unvested time-based vesting equity awards then held by him will accelerate and become immediately vested and exercisable, if applicable, and no longer subject to repurchase, if applicable, upon such termination and will remain exercisable, if applicable, following Dr. Chivukula’s termination as set forth in the applicable equity award.

Dr. Steven Hughes

On February 24, 2020, we entered into an Employment Agreement (the “Hughes Agreement”) with Dr. Steven Hughes, our Chief Medical Officer. The Hughes Agreement provides for the following compensation and benefits to Dr. Hughes:

- An annual base salary of \$415,000, paid in bi-monthly installments.
- An annual bonus of up to 40% of annual base salary. The bonus will be subject to the achievement of certain criteria, as determined by the Board and compensation committee.
- Reimbursement of travel and other expenses incurred by Dr. Hughes in connection with his service as Chief Medical Officer.
- For termination without cause or resignation for good reason unrelated to change in control of us, Dr. Hughes will be entitled to receive (i) severance pay in the form of continuation of payment installments of Dr. Hughes final base salary for 9 months, (ii) a pro rata portion of his annual bonus (as calculated by the Compensation Committee and Board at the end of the bonus period and paid in a lump sum when annual bonuses are paid to other executive officers), and (iii) payment of certain health insurance coverage premiums (COBRA) for up to 9 months following his termination of employment.

- For termination without cause or resignation for good reason in connection with a change in control of us, Dr. Hughes will be entitled to receive a lump sum severance payment equal to (i) nine months' annual base salary, (ii) an amount equal to his target annual bonus for the year of termination and (iii) an amount equal to a pro rata portion of his target annual bonus for the year of termination. Dr. Hughes will also be entitled to payment of certain health insurance coverage premiums (COBRA) for up to nine (9) months following termination. In addition, Dr. Hughes' unvested option award and any other unvested time-based vesting equity awards then held by him will accelerate and become immediately vested and exercisable, if applicable, and no longer subject to repurchase, if applicable, upon such termination and will remain exercisable, if applicable, following Dr. Hughes' termination as set forth in the applicable equity award.

Lance Kurata

On July 10, 2020, we entered into an Employment Agreement (the "Kurata Agreement") with Lance Kurata, our Chief Legal Officer. The Kurata Agreement provides for the following compensation and benefits to Mr. Kurata:

- An annual base salary of \$375,000, paid in bi-monthly installments.
- An annual bonus of up to 40% of annual base salary. The bonus will be subject to the achievement of certain criteria, as determined by the Board and compensation committee.
- Reimbursement of travel and other expenses incurred by Mr. Kurata in connection with his service as Chief Legal Officer.
- For termination without cause or resignation for good reason unrelated to change in control of us, Mr. Kurata will be entitled to receive (i) severance pay in the form of continuation of payment installments of Mr. Kurata final base salary for 9 months, (ii) a pro rata portion of his annual bonus (as calculated by the Compensation Committee and Board at the end of the bonus period and paid in a lump sum when annual bonuses are paid to other executive officers), and (iii) payment of certain health insurance coverage premiums (COBRA) for up to 9 months following his termination of employment.
- For termination without cause or resignation for good reason in connection with a change in control of us, Mr. Kurata will be entitled to receive a lump sum severance payment equal to (i) nine months' annual base salary, (ii) an amount equal to his target annual bonus for the year of termination and (iii) an amount equal to a pro rata portion of his target annual bonus for the year of termination. Mr. Kurata will also be entitled to payment of certain health insurance coverage premiums (COBRA) for up to nine (9) months following termination. In addition, Mr. Kurata's unvested option award and any other unvested time-based vesting equity awards then held by him will accelerate and become immediately vested and exercisable, if applicable, and no longer subject to repurchase, if applicable, upon such termination and will remain exercisable, if applicable, following Mr. Kurata's termination as set forth in the applicable equity award.

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL

See “*Current Agreements With Our Named Executive Officers*” for a description of the circumstances that would trigger payments or the provision of other benefits to each of our named executive officers in connection with their termination without cause or resignation for good reason in connection with a change in control. See page 43 for details on the amounts of such payments.

Under the employment agreements with our named executive officers, “good reason” for resignation from employment with the Company is defined as the Company taking any of the following actions without the executive’s prior written consent: (i) a material reduction in the executive’s base salary, unless pursuant to a salary reduction program applicable generally to the Company’s senior executives; (ii) a material reduction in the executive’s duties (including responsibilities and/or authorities), provided, however, that (A) a change in job position (including a change in title) shall not be deemed a “material reduction” in and of itself unless the executive’s new duties are materially reduced from the prior duties, and (B) any reduction in the executive’s duties which results from the executive serving in a more subordinate role in connection with the Company’s hiring of an individual not previously employed by the Company to serve as its President and/or Chief Executive Officer shall not be deemed a “material reduction”; or (iii) relocation of the executive’s principal place of employment to a place that increases the executive’s one-way commute by more than fifty (50) miles as compared to the executive’s then-current principal place of employment immediately prior to such relocation.

In order for an executive to resign for good reason, each of the following requirements must be met: (i) the executive must provide written notice to the Board within 30 days after the first occurrence of the event giving rise to good reason setting forth the basis for the executive’s resignation, (ii) the executive must allow the Company at least 30 days from receipt of such written notice to cure such event, (iii) such event is not reasonably cured by the Company within such 30 day period (the “Cure Period”), and (iv) the executive must resign from all positions the executive then holds with the Company not later than 30 days after the expiration of the Cure Period.

Effective May 1, 2021, the Board adopted a written Severance Policy covering all senior executives of the Company. Termination and change of control payments under the Severance Policy are without duplication of any severance payments provided for in an individual employment agreement (such that the higher amount would apply). For a summary of the Severance Policy, see pages 33 and 34. Pursuant to the Severance Policy, in order to receive any payments upon a termination or change of control, our named executive officers must execute a general release of all known and unknown claims, as drafted in the Company’s discretion, in a severance agreement acceptable to the Company within the applicable deadline set forth therein, but in no event later than twenty-one days following the executive’s termination date, and permit the release to become effective and irrevocable in accordance with its terms.

Options granted to our officers and certain of our directors may contain acceleration provisions upon certain merger, acquisition, or change of control transactions. If the relationship between us and an executive officer or a director is terminated, except for cause (as defined in the various option plan agreements), options that are vested will generally remain exercisable for ninety days or thirty-six months after such termination depending on whether the options were granted to an executive officer or director.

TERMINATION AND CHANGE OF CONTROL POTENTIAL PAYMENTS AND BENEFITS TABLE

The amounts disclosed in the table below are based on the payments and benefit costs that would have been incurred by the Company if the named executive officer's employment had terminated as of the last business day of the fiscal year ended December 31, 2020. The amounts included below do not include payments and benefits to the extent they are provided on a non-discriminatory basis to salaried employees generally upon termination of employment. Where applicable, the value of one of our shares of common stock on December 31, 2020 was \$43.38, which was the closing market price of our common stock on the Nasdaq on such date. The amounts disclosed in the table below do not reflect the terms of the Severance Policy adopted subsequent to December 31, 2020. For a summary of the Severance Policy, see pages 33 and 34.

| Name | Change of Control | | | |
|--|---|--|---|---|
| | Involuntary Termination without Cause or Resignation for Good Reason (\$) | Involuntary Termination without Cause or Resignation for Good Reason ⁽¹⁾ (\$) | Accelerated Vesting upon qualifying termination or if Award not Assumed, Substituted or Continued by the Acquiring Entity ⁽²⁾ (\$) | Award Assumed, Substituted or Continued by the Acquiring Entity ⁽²⁾ (\$) |
| Joseph Payne^{(4) (5)} | | | | |
| Cash Severance | \$ 950,000 | \$ 1,100,000 | | |
| Equity Treatment | | | \$ 12,433,100 | \$ 12,433,100 |
| Health and Welfare | \$ 26,000 | \$ 39,000 | | |
| TOTAL | \$ 976,000 | \$ 1,139,000 | \$ 12,433,100 | \$ 12,433,100 |
| Dr. Padmanabh Chivukula^{(4) (5)} | | | | |
| Cash Severance | \$ 640,000 | \$ 720,000 | | |
| Equity Treatment | | | \$ 7,180,340 | \$ 7,180,340 |
| Health and Welfare | \$ 26,000 | \$ 39,000 | | |
| TOTAL | \$ 666,000 | \$ 759,000 | \$ 7,180,340 | \$ 7,180,340 |
| Andy Sassine⁽³⁾⁽⁵⁾ | | | | |
| Cash Severance | \$ 540,000 | \$ 620,000 | | |
| Equity Treatment | | | \$ 7,432,514 | \$ 7,432,514 |
| Health and Welfare | \$ 20,000 | \$ 26,000 | | |
| TOTAL | \$ 560,000 | \$ 646,000 | \$ 7,432,514 | \$ 7,432,514 |
| Dr. Steven Hughes⁽³⁾⁽⁵⁾ | | | | |
| Cash Severance | \$ 560,250 | \$ 643,250 | | |
| Equity Treatment | | | \$ 4,212,625 | \$ 4,212,625 |
| Health and Welfare | \$ 20,000 | \$ 20,000 | | |
| TOTAL | \$ 580,250 | \$ 663,250 | \$ 4,212,625 | \$ 4,212,625 |
| Lance Kurata⁽³⁾⁽⁵⁾ | | | | |
| Cash Severance | \$ 348,750 | \$ 581,250 | | |
| Equity Treatment | | | \$ 4,916,800 | \$ 4,916,800 |
| Health and Welfare | \$ 20,000 | \$ 20,000 | | |
| TOTAL | \$ 368,750 | \$ 601,250 | \$ 4,916,800 | \$ 4,916,800 |

(1) See above in "Potential Payments Upon Termination or Change in Control" for the definition of "good reason" under the employment agreements with our NEOs.

(2) Under the Severance Policy, the NEOs are entitled to accelerated equity award vesting if their employment is terminated or they resign for good reason within 18 months of a change of control.

(3) For Cash Severance, amount represents the payment of an amount equal to nine months of the employee's annual base salary, as well as (i) for involuntary termination without cause or resignation for good reason not in connection with a change of control, a lump sum payment of the pro rata portion of the executive's annual bonus for the year of termination or resignation based actual performance (a "Performance Bonus"), and (ii) for involuntary termination without cause or resignation with good reason in connection with a change of control, a Performance Bonus and a lump sum payment in an amount equal to the executive's target annual bonus for the year of termination or resignation (a "Target Bonus").

For Health and Welfare, amount represents the estimated value of providing the employee and their dependents with health benefits for nine months following the date of termination or resignation, or 12 months in connection with a change of control. This amount is calculated based on the present value of the maximum liability with respect to the employee and their dependents under our applicable benefit plan in effect as of December 31, 2020.

(4) For Cash Severance, amount represents the payment of an amount equal to 12 months of the employee's annual base salary, as well as (i) for involuntary termination without cause or resignation for good reason not in connection with a change of control, a Performance Bonus, and (ii) for involuntary termination without cause or resignation with good reason in connection with a change of control, a Performance Bonus and a Target Bonus.

For Health and Welfare, amount represents the estimated value of providing the employee and their dependents with health benefits for 12 months following the date of termination or resignation, or 18 months in connection with a change of control. This amount is calculated based on the present value of the maximum liability with respect to the employee and their dependents under our applicable benefit plan in effect as of December 31, 2020.

(5) For Equity Treatment, amount represents the estimated value of accelerated vesting of stock options subject to outstanding stock options upon a termination or resignation for good reason prior to December 31, 2020.

CEO PAY RATIO

For 2020, Mr. Payne's total annual compensation as disclosed in the Summary Compensation Table was \$12,861,500, and the total annual compensation for our median employee was \$752,806, resulting in a pay ratio of 17:1 (the "Pay Ratio").

To identify the median employee and calculate the annual total compensation of the median-paid employee, we determined (i) the total number of part-time and full-time individuals employed at any point during fiscal year 2020, and (ii) the sum of the salary, bonus, and share-based compensation incurred for each employee.

We believe the pay ratio reported above is a reasonable estimate calculated in a manner consistent with SEC rules based on our internal records and the methodology described above. Because the SEC rules for identifying the median compensated employee and calculating pay ratio allow companies to adopt a variety of methodologies, apply certain exclusions, and make reasonable estimates and assumptions that reflect their employee populations and compensation practices, our pay ratio may not be comparable to the pay ratios reported by other companies.

As noted above, the Company moved the timing of its annual equity grant for executives for 2020 from February 2021 to December 2020. The effect of the change in grant timing is that two annual grants were awarded to executives in fiscal 2020. Non-executive employees received only one equity grant in fiscal 2020, which had the effect of increasing the Pay Ratio.

Outstanding Equity Awards at Fiscal Year-End for Fiscal 2020

The following table sets forth certain information regarding all outstanding equity awards held by our named executive officers as of December 31, 2020. None of the outstanding equity awards shown in the table below have been exercised or forfeited as of December 31, 2020. None of our named executive officers held any other equity awards from the Company as of December 31, 2020.

| Name | Number of Securities Underlying Unexercised Options (#) Exercisable | Number of Securities Underlying Unexercised Options (#) Unexercisable | Option Exercise Price (\$) | Option Expiration Date |
|-------------------------|---|---|----------------------------|------------------------|
| Joseph Payne | 70,000 | 50,000 ⁽¹⁾ | 8.00 | 08/24/2028 |
| | 27,500 | 32,500 ⁽¹⁾ | 4.99 | 02/07/2029 |
| | — | 100,000 ⁽¹⁾ | 14.12 | 02/18/2030 |
| | — | 175,000 ⁽¹⁾ | 99.29 | 12/18/2030 |
| Dr. Padmanabh Chivukula | 46,666 | 33,334 ⁽¹⁾ | 8.00 | 08/24/2028 |
| | 18,333 | 21,667 ⁽¹⁾ | 4.99 | 02/07/2029 |
| | — | 60,000 ⁽¹⁾ | 14.12 | 02/18/2030 |
| | — | 100,000 ⁽¹⁾ | 99.29 | 12/18/2030 |
| Andy Sassine | 36,250 | — | 8.00 | 08/24/2028 |
| | 47,916 | 52,084 ⁽¹⁾ | 4.53 | 01/01/2029 |
| | 15,000 | — | 10.23 | 10/25/2029 |
| | — | 80,000 ⁽¹⁾ | 14.12 | 02/18/2030 |
| | — | 100,000 ⁽¹⁾ | 99.29 | 12/18/2030 |
| Dr. Steven Hughes | — | 75,000 ⁽¹⁾ | 14.12 | 02/18/2030 |
| | — | 12,500 ⁽¹⁾ | 48.84 | 11/11/2030 |
| | — | 50,000 ⁽¹⁾ | 99.29 | 12/18/2030 |
| Lance Kurata | — | 90,000 ⁽¹⁾ | 58.91 | 08/10/2030 |
| | — | 25,000 ⁽¹⁾ | 99.29 | 08/18/2030 |

(1) The option award vests 25% on the one year anniversary of the date of grant, with the remainder vesting in 36 successive equal monthly increments thereafter.

Pension Benefits

None of our named executive officers participate in or have account balances in qualified or non-qualified defined benefit plans sponsored by us.

Non-Qualified Deferred Compensation

None of our named executive officers participate in or have account balances in qualified or non-qualified defined contribution plans or other non-qualified compensation plans sponsored by us.

Perquisites, Health, Welfare and Retirement Benefits

Our named executive officers are eligible to participate in our employee benefit plans, including our medical, dental, vision, group life, disability and accidental death and dismemberment insurance plans, in each case on the same basis as all of our other employees. We provide a 401(k) savings plan to our employees, including our current named executive officers, as discussed in the section below entitled “401(k) Plan.”

We generally do not provide perquisites or personal benefits to our named executive officers, except in limited circumstances and as noted in the Summary Compensation Table above. Our Board may elect to adopt qualified or non-qualified benefit plans in the future if it determines that doing so is in our best interests.

401(k) Plan

We maintain a tax-qualified retirement plan that provides eligible employees, including named executive officers, with an opportunity to save for retirement on a tax advantaged basis. All participants' interests in their deferrals are 100% vested when contributed. Pre-tax and after-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participant's directions. Currently, we do not make matching contributions into the plan. The 401(k) plan is intended to qualify under Sections 401(a) and 501(a) of the Internal Revenue Code. As a tax-qualified retirement plan, contributions to the 401(k) plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan, and all matching contributions, if any, are deductible by us when made.

Equity Compensation Plans

The following information is provided as of December 31, 2020 with respect to our equity compensation plans:

| Plan Category | Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights (a) | Weighted Average Exercise Price of Outstanding Options, Warrants and Rights (b) | Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column a) (c) |
|--|--|--|--|
| Equity compensation plans approved by security holders | 3,324,713 | 46.03 | 1,257,159 |
| Equity compensation plans not approved by security holders | --- | --- | --- |
| Total | 3,324,713 | 46.03 | 1,257,159 |

Compensation Committee Report

The compensation committee has reviewed and discussed the foregoing “*Executive Compensation*” section of this proxy statement, including the “*Compensation Discussion and Analysis*,” with management. Based on this review and discussion, the compensation committee recommended to our Board that such information be included in this proxy statement.

Dr. Magda Marquet
James Barlow
Dr. Peter Farrell

The information contained in the Compensation Committee Report shall not be deemed to be soliciting material or to be filed with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act or the Exchange Act, except to the extent that Arcturus specifically incorporates it by reference in such filing.

RELATED PERSON TRANSACTIONS

Ultragenyx Agreement

On June 18, 2019, we entered into an equity purchase agreement (the “Equity Agreement”) with Ultragenyx pursuant to which we sold an aggregate of 2,400,000 shares of our common stock at a price of \$10.00 per share to Ultragenyx on June 19, 2019 and granted to Ultragenyx a two year option to purchase up to 600,000 additional shares of our common stock at a price of \$16.00 per share. On May 20, 2020, Ultragenyx completed the exercise of this option to purchase an additional 600,000 shares of common stock in accordance with the terms of the agreement. The issuance of the additional 600,000 shares closed on May 20, 2020.

Pursuant to the terms of the Equity Agreement, until the later of (i) June 19, 2020 or (ii) the date on which Ultragenyx beneficially owns less than 8.0% of our total voting power, at each annual stockholders meeting or any stockholders meeting at which members of the Board are to be elected we must nominate one director designated by Ultragenyx (the “Ultragenyx Designee”). Additionally, the Ultragenyx Designee is required to be appointed to all Board committees (subject to applicable Nasdaq rules). Ultragenyx also has the right to have a designee attend Board meetings as a non-voting observer. Our director Karah Parschauer is the initial Ultragenyx Designee.

Also on June 18, 2019, we and Ultragenyx entered into a Third Amendment (the “Amendment”), to the Research Collaboration and License Agreement, dated October 26, 2015, as amended on October 17, 2017 and April 20, 2018. The Amendment expanded the collaboration between us and Ultragenyx to cover additional nucleic acid modalities including mRNA, DNA, siRNA therapeutics. The Amendment also expanded the existing intellectual property license to cover manufacturing patents and know-how. The Amendment provides Ultragenyx with the right to identify a total of ten rare disease targets to be reserved for future collaborative development with us, which expands this program from 8 to 10 total reserved rare disease targets. The Amendment also clarified certain obligations of us and Ultragenyx with respect to manufacturing cooperation and data sharing.

The Amendment also eliminated certain target exercise payments, exclusivity extension fees and optimization milestone payments that were previously required to be paid by Ultragenyx to exercise options and extend reserve target exclusivity. In connection with the Amendment, Ultragenyx made a one-time payment to us of \$6,000,000. Finally, the Amendment narrowed the terms under which a royalty or milestone payment that may be required to be paid by Ultragenyx could be reduced based on our and third parties’ intellectual property coverage over a developed product.

Vallon Pharmaceuticals Inc.

Arcturus Therapeutics, Inc. owns 843,750 shares of Vallon Pharmaceuticals Inc., a public clinical-stage company focused on the development and commercialization of novel abuse-deterrent medications for CNS disorders, and Mr. Payne serves on Vallon’s board of directors and compensation committee. As compensation for his 2021 service on Vallon’s board, Mr. Payne is entitled to receive an option to purchase 15,000 shares of Vallon common stock and a \$35,000 cash retainer.

Restricted Stock Purchases

In March 2013, the founders of the Company purchased 2,783,686 shares of common stock for \$0.0068 per share. Of the shares purchased, 1,538,353 were subject to a repurchase option whereby the Company has an option for two months after date of termination of service to repurchase any or all of the unvested shares at the original purchase price per share. The repurchase option will be deemed to be automatically exercised by the Company as of the end of the two-month period unless the Company notifies the purchaser that it does not intend to exercise its option. The shares will be vested (1) 25% after obtaining suitable siRNA license; (2) 25% after in vivo proof-of-concept achieved; (3) 25% after a regulatory agency new drug application (such as an IND application) is filed and accepted by the applicable regulatory agency; and (4) 25% after human biological proof-of-concept is achieved. The Company met the first two milestones during 2013 and 2014 leaving an unvested balance of 769,176 shares of common stock. In 2017, the common stock purchase agreements were amended to clarify vesting conditions and also to accelerate the vesting of 146,510 shares of common stock. As the Company met the third milestone during April 2020 and the fourth milestone in September 2020, all such shares have fully vested.

Related Party Transactions Policy and Procedures

We have adopted a policy with respect to the review, approval, and ratification of related party transactions. Under the policy, the Audit Committee is responsible for the identification, review, consideration and approval or ratification of related person transactions. A related person includes directors, executive officers, beneficial owners of 5% or more of any class of our voting securities, immediate family members of any of the foregoing persons, and any entities in which any of the foregoing is an executive officer or is an owner of 5% or more ownership interest.

If a transaction has been identified as a related person transaction, including any transaction that was not a related person transaction when originally consummated or any transaction that was not initially identified as a related person transaction prior to consummation, information regarding the related person transaction must be reviewed and approved by the audit committee

In considering related person transactions, our audit committee takes into account the relevant available facts and circumstances including, but not limited to:

- the related person's interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of business;
- whether the transaction with the related person is proposed to be, or was, entered into on terms no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

In determining whether to approve, ratify or reject a related person transaction, the audit committee reviews all relevant information available to it about such transaction, and it may approve or ratify the related person transaction only if it determines that, under all of the circumstances, the transaction is in, or is not inconsistent with, the best interests of the Company.

SECURITY OWNERSHIP

The following table sets forth information with respect to the beneficial ownership of our common stock as of April 1, 2021 by:

- each person or entity known by us to own beneficially 5% or more of our outstanding shares;
- each of our directors and executive officers individually; and
- all of our executive officers and directors as a group.

The beneficial ownership of shares of common stock is determined in accordance with the rules of the SEC and generally includes any shares of common stock over which a person exercises sole or shared voting or investment power, or the right to receive the economic benefit of ownership. For purposes of the table below, we deem shares subject to options or warrants that are currently exercisable or exercisable within 60 days of April 1, 2021, to be outstanding and to be beneficially owned by the person holding the options or warrants for the purposes of computing the percentage ownership of that person, but we do not treat them as outstanding for the purpose of computing the percentage ownership of any other person. The percentage of shares beneficially owned is based on 26,319,024 shares of common stock outstanding as of April 1, 2021.

The following table sets forth information regarding the beneficial ownership by each person or entity known to beneficially own more than 5% of our common stock as of April 1, 2021. Except as indicated in footnotes to this table, we believe that the stockholders named in this table have sole voting and investment power with respect to all shares shown to be beneficially owned by them, based on information provided to us by such stockholders. Unless otherwise noted below, each beneficial owner's address is: c/o Arcturus Therapeutics Holdings Inc., 10628 Science Center Drive, Suite 250, San Diego, California, 92121.

Shares of Common Stock Beneficially Owned

| | Common Stock Beneficially Owned | |
|--|------------------------------------|------------|
| | Number | Percentage |
| 5% or Greater Stockholders | | |
| Ultragenyx Pharmaceutical, Inc. ⁽¹⁾ | 2,200,000 | 8.4% |
| ARK Investment Management LLC ⁽²⁾ | 3,959,019 | 15.0% |
| Federated Hermes, Inc. ⁽³⁾ | 3,452,810 | 13.1% |
| BlackRock, Inc. ⁽⁴⁾ | 1,781,955 | 6.8% |
| T. Rowe Price Associates, Inc. ⁽⁵⁾ | 1,422,179 | 5.4% |
| Directors and Executive Officers | | |
| Joseph E. Payne ⁽⁶⁾ | 1,622,597 | 6.1% |
| Andy Sassine ⁽⁷⁾ | 402,818 | 1.5% |
| Padmanabh Chivukula ⁽⁸⁾ | 748,798 | 2.8% |
| Steven Hughes ⁽⁹⁾ | 27,603 | * |
| Lance Kurata ⁽¹⁰⁾ | — | * |
| Peter C Farrell ⁽¹¹⁾ | 156,815 | * |
| Magda Marquet ⁽¹¹⁾ | 83,970 | * |
| James Barlow ⁽¹¹⁾ | 71,250 | * |
| Edward. W. Holmes ⁽¹²⁾ | 44,583 | * |
| Karah Parschauer ⁽¹²⁾ | 44,583 | * |
| All directors and executive officers as a group (10 persons) | 3,203,017 | 12.2% |

(1) Based on an amended Schedule 13D filed with the SEC on December 10, 2020. The address of Ultragenyx Pharmaceutical Inc. is 60 Leveroni Court, Novato, California 94949.

(2) Based on a Form 13G/A filed with the SEC on February 16, 2020. The address of ARK Investment Management LLC is 3 East 28th Street, 7th Floor, New York, NY 10016.

- (3) Based on a Form 13G filed with the SEC on January 1, 2021. The address of Federated Hermes, Inc. is 1001 Liberty Avenue, Pittsburgh, PA 15222-3779.
- (4) Based on a Form 13G filed with the SEC on February 2, 2021. The address of BlackRock, Inc. is 55 East 52nd Street New York, NY 10055.
- (5) Based on a Form 13G filed with the SEC on February 16, 2021. The address of T. Rowe Price Associates, Inc. is 100 E. Pratt Street Baltimore, MD 21202.
- (6) Includes 147,500 shares issuable upon the exercise of options exercisable within 60 days of April 1, 2021; does not include 307,500 shares issuable upon the exercise of options subject to vesting.
- (7) Includes 134,583 shares issuable upon the exercise of options exercisable within 60 days of April 1, 2021; does not include 196,667 shares issuable upon the exercise of options subject to vesting.
- (8) Includes 96,250 shares issuable upon the exercise of options exercisable within 60 days of April 1, 2021; does not include 183,750 shares issuable upon the exercise of options subject to vesting.
- (9) Includes 27,603 shares issuable upon the exercise of options exercisable within 60 days of April 1, 2021; does not include 109,897 shares issuable upon the exercise of options subject to vesting.
- (10) Does not include 115,000 shares issuable upon the exercise of options subject to vesting.
- (11) Includes 61,250 shares issuable upon the exercise of options exercisable within 60 days of April 1, 2021; does not include 1,250 shares issuable upon the exercise of options subject to vesting.
- (12) Includes 44,583 shares issuable upon the exercise of options exercisable within 60 days of April 1, 2021; does not include 5,417 shares issuable upon the exercise of options subject to vesting

OTHER MATTERS

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our executive officers and directors, and persons who own more than 10% of a registered class of our equity securities, to file reports of ownership and changes of ownership on Forms 3, 4 and 5 with the SEC. Such directors, executive officers and 10% stockholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file.

Based solely on our review of the copies of such forms we have received and written representations from certain reporting persons that they filed all required reports, we believe that all of our officers, directors and 10% stockholders complied with all Section 16(a) filing requirements applicable to them with respect to transactions during 2020.

Fiscal Year 2020 Annual Report

Our financial statements for our fiscal year ended December 31, 2020 are included in our 2020 annual report, which we will make available to stockholders at the same time as this proxy statement. This proxy statement and our 2020 annual report are posted on our website at <http://www.arcturusrx.com> and at the website of the SEC at www.sec.gov. **You may also obtain a copy of our 2020 annual report without charge by sending a written request to us at Arcturus Therapeutics Holdings Inc., 10628 Science Center Drive, Suite 250, San Diego, California 92121, Attention: Investor Relations.**

Company Website

We maintain a website at <http://www.arcturusrx.com>. Information contained on, or that can be accessed through, our website is not intended to be incorporated by reference into this proxy statement.

PROPOSALS OF STOCKHOLDERS FOR 2022 ANNUAL MEETING

Stockholder Proposals for Inclusion in Proxy Statement

Stockholders may present proper proposals for inclusion in our proxy statement and for consideration at the next annual meeting of stockholders by submitting their proposals in writing to our corporate secretary in a timely manner. For a stockholder proposal to be considered for inclusion in our proxy statement for our next annual meeting of stockholders, our corporate secretary must receive the written proposal at our principal executive offices not later than the close of business on January 4, 2022. In addition, stockholder proposals must comply with the requirements of Rule 14a-8 under the Exchange Act regarding the inclusion of stockholder proposals in company-sponsored proxy materials. Proposals should be addressed to:

Arcturus Therapeutics Holdings Inc.
Attn: Corporate Secretary
10628 Science Center Drive, Suite 250
San Diego, California 92121

Stockholder Proposals and Director Nominations Not for Inclusion in Proxy Statement

Our bylaws also establish an advance notice procedure for stockholders who wish to (i) present a proposal before an annual meeting of stockholders, but do not intend for the proposal to be included in our proxy statement or (ii) nominate directors for election at an annual meeting of stockholders. In order to be properly brought before our 2022 annual meeting of stockholders, the stockholder must have given timely notice of such proposal or nomination, in proper written form. To be timely for our 2022 annual meeting of stockholders, a stockholder's notice of a matter that the stockholder wishes to present, or the person or persons the stockholder wishes to nominate as a director, must be delivered to the corporate secretary at Arcturus' principal executive offices not less than 45 days and not more than 75 days prior to the first anniversary of the date of the mailing of the materials for the preceding year's annual meeting of stockholders. As a result, any written notice given by a stockholder pursuant to these provisions of our bylaws must be received by our corporate secretary at our principal executive offices:

- not earlier than February 18, 2022, and
- not later than March 20, 2022.

In the event that we hold our 2022 annual meeting of stockholders more than 30 days before or more than 30 days after the one-year anniversary date of the 2021 annual meeting, then such written notice must be received no later than the close of business on the later of the following two dates:

- the 90th day prior to such annual meeting, or
- the 10th day following the day on which public announcement of the date of such meeting is first made.

To be in proper written form, a stockholder's notice must include the specified information concerning the proposal or nominee as described in our bylaws. Notices should be addressed to:

Arcturus Therapeutics Holdings Inc.
Attn: Corporate Secretary
10628 Science Center Drive, Suite 250
San Diego, California 92121

For additional information regarding stockholder recommendations for director candidates, please see the section entitled "Requirements for Stockholder Recommendations of a Candidate to our Board."

We know of no other matters to be submitted at the 2021 annual meeting. If any other matters properly come before the 2021 annual meeting, it is the intention of the persons named in the proxy to vote the shares they represent as the Board may recommend. Discretionary authority with respect to such other matters is granted by a properly submitted proxy.

It is important that your shares be represented at the 2021 annual meeting, regardless of the number of shares that you hold. You are, therefore, urged to vote as promptly as possible to ensure your vote is recorded.

THE BOARD OF DIRECTORS

San Diego, California
May 4, 2021

**ARCTURUS THERAPEUTICS
HOLDINGS INC.**

c/o Continental Proxy Services
1 State Street, New York, NY 10004

**You May Vote Your Proxy When You View The
Material On The Internet. You Will Be Asked
To Follow The Prompts To Vote Your Shares.**

**ARCTURUS THERAPEUTICS
HOLDINGS INC.**

**NOTICE OF ANNUAL MEETING OF
SHAREHOLDERS**

to be held on
June 18, 2021

*Shareholders are cordially invited to attend the Virtual Annual Meeting and to vote
on the Internet or any Mobile device.

Dear Stockholder,

The 2021 Annual Meeting of Shareholders of Arcturus Therapeutics Holdings Inc. (the “Company”) will be conducted virtually over the Internet. You will be able to attend the annual meeting, vote your shares electronically and submit your questions during the live webcast of the meeting being held on June 18, 2021, at 9:00 a.m. Pacific Time by visiting <http://cstproxy.com/arcturusrx/2021>.

Proposals to be considered at the Annual Meeting:

- (1) To elect to the Company’s Board of Directors seven persons nominated by the Board of Directors;
- (2) To ratify the appointment of Ernst & Young LLP as the Company’s independent registered public accounting firm for fiscal year ending December 31, 2021; and
- (3) To address such other matters as may properly come before the 2021 annual meeting or any adjournment or postponement thereof. The Board of Directors recommends a vote “FOR” all nominees under Proposal 1 and “FOR” Proposal 2.

The Board of Directors recommends a vote “FOR” all nominees under Proposal 1 and “FOR” Proposal 2.

Your electronic vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed, dated, and returned the proxy card.



Vote at the Meeting –

If you plan to attend the virtual online annual meeting, you will need your 12 digit control number to vote electronically at the annual meeting



Vote Your Proxy on the Internet:

Go to <http://www.cstproxyvote.com>

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

CONTROL NUMBER

**To view the Proxy Materials and attend
the annual meeting, please go to:
<http://cstproxy.com/arcturusrx/2021>**

**ARCTURUS THERAPEUTICS
HOLDINGS INC.**

**Important Notice Regarding the Availability of Proxy Materials
For the 2021 Annual Meeting of Stockholders to be Held On June 18, 2021.**

The following Proxy Materials are available to you to review at: <http://cstproxy.com/arcturusrx/2021>

- the Company's Annual Report for the year ended December 31, 2020.
- the Company's 2021 Proxy Statement.
- the Proxy Card.
- any amendments to the foregoing materials that are required to be furnished to shareholders.

This is not a ballot. You cannot use this notice to vote your shares. This communication presents only an overview of the more complete proxy materials that are available to you on the Internet. We encourage you to access and review all of the important information contained in the proxy materials before voting.

If you would like to receive a paper or e-mail copy of these documents, you must request one. There is no charge for such documents to be mailed to you. Please make your request for a copy as instructed below on or before June 8, 2021 to facilitate a timely delivery. You may also request that you receive paper copies of all future proxy materials from the Company.

ACCESSING YOUR PROXY MATERIALS ONLINE

**Have this notice available when you request a paper copy of the proxy materials or to vote your proxy electronically.
You must reference your Control number.**

REQUESTING A PAPER COPY OF THE PROXY MATERIALS

By telephone please call 917-262-2373, or

By logging on to <http://cstproxy.com/arcturusrx/2021> or

By email at: proxy@continentalstock.com

Please include the company name and your control number in the subject line.