



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

To our Stockholders:

We are pleased to invite you to attend the 2025 annual meeting of stockholders (the “Annual Meeting”) of Arcturus Therapeutics Holdings Inc. (the “Company” or “Arcturus”), to be held on June 6, 2025 at 9:00 a.m. Pacific Time, at <https://www.cstproxy.com/arcturusrx/2025>. The 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 entirely 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 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

April 25, 2025



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 6, 2025.
- Place** Virtually via the Internet at <https://www.cstproxy.com/arcturusrx/2025>. 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, Dr. Jing L. Marantz, Dr. John Markels, and Dr. Moncef Slaoui to the Board of Directors (the “Board”), to serve until our next annual meeting of stockholders.
 - (2) To approve, on a non-binding advisory basis, the resolution approving named executive officer compensation.
 - (3) To ratify the appointment of Deloitte & Touche LLP (“Deloitte”), as our independent registered public accounting firm for the fiscal year ending December 31, 2025.
 - (4) 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 14, 2025. Only stockholders of record of our common stock as of April 14, 2025 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 14, 2025. You may attend the Annual Meeting and vote during the Annual Meeting by visiting <https://www.cstproxy.com/arcturusrx/2025> 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
April 25, 2025

TABLE OF CONTENTS

	<u>Page</u>
QUESTIONS AND ANSWERS ABOUT THE PROXY MATERIALS AND ANNUAL MEETING	1
BOARD OF DIRECTORS AND CORPORATE GOVERNANCE	7
PROPOSAL NUMBER 1. ELECTION OF DIRECTORS	17
PROPOSAL NUMBER 2. TO APPROVE BY NON-BINDING ADVISORY VOTE, THE RESOLUTION APPROVING THE COMPANY'S NAMED EXECUTIVE OFFICER COMPENSATION	18
PROPOSAL NUMBER 3. RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	19
REPORT OF THE AUDIT COMMITTEE	22
EXECUTIVE OFFICERS	23
EXECUTIVE COMPENSATION	24
RELATED PARTY TRANSACTIONS	48
SECURITY OWNERSHIP	49
OTHER MATTERS	52
PROPOSALS OF STOCKHOLDERS FOR 2026 ANNUAL MEETING	53

**ARCTURUS THERAPEUTICS HOLDINGS INC. PROXY STATEMENT
FOR THE 2025 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON JUNE 6, 2025**

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 2025 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 6, 2025 at 9:00 a.m. Pacific Time, at <https://www.cstproxy.com/arcturusrx/2025>. The Annual Meeting will be a completely virtual meeting of stockholders.

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 April 28, 2025 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 14, 2025, the record date, are entitled to vote at the annual meeting. As of the record date, there were 27,120,603 shares of our common stock issued and outstanding, held by nine holders of record. We do not have cumulative voting rights for the election of directors.

Stockholder of Record: Shares Registered in Your Name. If, at the close of business on the record date for the annual meeting, your shares were registered directly in your name with our transfer agent, Continental Stock Transfer & Trust Company (“Continental”), then you are a stockholder of record. As a stockholder of record, you have the right to grant your voting proxy directly to the individuals listed on the proxy card or to vote online, by mail, or in person at the annual meeting.

Beneficial Owner: Shares Registered in the Name of a Broker, Bank, or Other Nominee. If, at the close of business on the record date for the annual meeting, your shares were held, not in your name, but rather in an account at a brokerage firm, bank, or other nominee, then you are the beneficial owner of shares held in “street name” and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered the stockholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your broker, bank or other nominee regarding how to vote the shares in your account by following the voting instructions your broker, bank or other nominee provides. You are also invited to attend the annual meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the annual meeting unless you obtain a valid proxy from your broker, bank or other nominee.

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 14, 2025, 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/2025>, 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/2025>. Stockholders may also submit questions online during the meeting at <https://www.cstproxy.com/arcturusrx/2025>. Given time constraints, some questions may not be addressed during the virtual Annual Meeting.

How can I vote my shares?

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote in one of the following ways:

- You may vote by mail. Complete, sign and date the proxy card that accompanies this proxy statement and return it promptly in the postage-prepaid envelope provided. Your completed, signed and dated proxy card must be received prior to the annual meeting.
- You may vote via the Internet. To vote via the Internet, go to www.cstproxyvote.com to complete an electronic proxy card (have your proxy card in hand when you visit the website). You will be asked to provide the company number and control number from your proxy card. Internet voting is available 24 hours a day, 7 days a week, until 11:59 p.m., Eastern time, on June 5, 2025.

If you are a beneficial owner of shares held of record by a broker, bank or other nominee, you will receive voting instructions from your broker, bank or other nominee. You must follow the voting instructions provided by your broker, bank or other nominee in order to instruct your broker, bank or other nominee on how to vote your shares.

What am I voting on?

You are being asked to vote on three proposals:

- the election of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet, Dr. Jing L. Marantz, Dr. John H. Markels, and Dr. Moncef Slaoui to the Board, to serve until our next annual meeting of stockholders;
- the approval, by non-binding advisory vote, of the resolution approving named executive officer compensation (the "Say on Pay Proposal"); and
- the ratification of the appointment of Deloitte & Touche LLP ("Deloitte") as our independent registered public accounting firm for our fiscal year ending December 31, 2025.

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, Dr. Jing L. Marantz, Dr. John Markels, or Dr. Moncef Slaoui 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, Dr. Jing L. Marantz, Dr. John H. Markels, and Dr. Moncef Slaoui to the Board;
- “FOR” the Say on Pay Proposal; and
- “FOR” the ratification of the appointment of Deloitte as our independent registered public accounting firm for our fiscal year ending December 31, 2025.

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 Andy Sassine, our Chief Financial Officer, 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 (including virtually) or represented by proxy for us to hold and transact business at the annual meeting. On the record date, there were 27,120,603 shares outstanding and entitled to vote. Thus, the holders of at least 9,040,201 shares must be present in person (including virtually) 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 (including virtually) 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 Deloitte as our independent registered public accounting firm for our fiscal year ending December 31, 2025 (Proposal No. 3) is considered routine under the rules of the Nasdaq Stock Market LLC (“Nasdaq”). All other proposals are considered “non-routine” under applicable federal securities rules and the rules of The Nasdaq Stock Market LLC.

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

Abstentions (i.e. shares present at the annual meeting and marked “abstain”) are deemed to be shares presented or represented by proxy and entitled to vote, and are counted for purposes of determining whether a quorum is present. However, abstentions are not counted as a vote either for or against a proposal, and have no effect on the outcome of the matters voted upon.

A broker non-vote occurs when the beneficial owner of shares fails to provide the broker, bank or other nominee that holds the shares with specific instructions on how to vote on any “non-routine” matters brought to a vote at the annual meeting. In this situation, the broker, bank or other nominee will not vote on the “non-routine” matter. Broker non-votes are counted for purposes of determining whether a quorum is present and have no effect on the outcome of the matters voted upon.

Note that if you are a beneficial holder, brokers and other nominees will be entitled to vote your shares on “routine” matters without instructions from you. The only proposal that would be considered “routine” in such event is the proposal for the ratification of the appointment of Deloitte as our independent registered public accounting firm for the fiscal year ending December 31, 2025 (Proposal No. 3). A broker or other nominee will not be entitled to vote your shares on any “non-routine” matters, absent instructions from you. “Non-routine” matters include all proposals other than Proposal No. 4, including the election of directors. Accordingly, we encourage you to provide voting instructions to your broker or other nominee whether or not you plan to attend the meeting.

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, Dr. Jing L. Marantz, Dr. John H. Markels, and Dr. Moncef Slaoui 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 generally prevent each of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet, Dr. Jing L. Marantz, Dr. John H. Markels, and Dr. Moncef Slaoui from being elected as a director. Shares voted “WITHHOLD” will count towards the quorum requirement for the annual meeting.

Proposal No. 2: Say on Pay. The approval, on an advisory basis, of the Say on Pay Proposal requires the affirmative vote of a majority of the votes cast on the proposal at the annual meeting. You may vote “FOR,” “AGAINST,” or “ABSTAIN” on this proposal. Abstentions will count towards the quorum requirement for the annual meeting but will not count as a vote for or against the proposal.

Proposal No. 3: Ratification of Appointment of Deloitte. The ratification of the appointment of Deloitte requires the affirmative vote of a majority of the votes cast on the proposal at the annual meeting. You may vote “FOR,” “AGAINST,” or “ABSTAIN” on this proposal. Abstentions will count towards the quorum requirement for the annual meeting but will not count as a vote for or against the proposal.

Who will count the votes?

A representative of Continental 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, Dr. Jing L. Marantz, Dr. John H. Markels, and Dr. Moncef Slaoui to the Board;
- “FOR” the Say on Pay Proposal; and
- “FOR” the ratification of the appointment of Deloitte as our independent registered public accounting firm for our fiscal year ending December 31, 2025.

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. 3 relating to ratifying the appointment of Deloitte. Absent direction from you, however, your broker, bank or other nominee will not have the discretion to vote on Proposal No. 1 or 2.

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, although we may engage a proxy solicitor in the future.

If you choose to access the proxy materials and/or vote over the Internet, or attend the annual meeting virtually, 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 2026 Annual Meeting*” in this proxy statement for more information regarding the deadlines for the submission of stockholder proposals for our 2026 annual meeting.

BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Composition of the Board

Our Board is currently composed of nine 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	82	Chairman of the Board	May 2018
Joseph E. Payne	53	President, Chief Executive Officer and Director	March 2013
Andy Sassine	60	Chief Financial Officer and Director	May 2018
James Barlow	66	Director	May 2018
Dr. Edward W. Holmes	84	Director	September 2019
Dr. Magda Marquet	66	Director	May 2018
Dr. Jing L. Marantz	59	Director	December 2021
Dr. John H. Markels	60	Director	December 2022
Dr. Moncef Slaoui, Ph.D.	65	Director	June 2024

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.

Effective July 1, 2025, Dr. Farrell will no longer be Chairman of the Board and will continue as a director.

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 served 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, until April 2023. 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. 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 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 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.

Dr. Jing L. Marantz, M.D., Ph.D., joined our Board of Directors in December 2021. Dr. Marantz has served as Chief Medical Officer of Scholar Rock Holding Corporation, a clinical stage biopharmaceutical company, since November 2022. From January 2022 to August 2022, Dr. Marantz served as Chief Business Officer of Krystal Biotech, Inc. after serving on its board for a year. From October 2020 to January 2022, Dr. Marantz served as Senior Vice President of Medical Affairs of Acceleron Pharma Inc. until its acquisition by Merck & Co., Inc. From June 2018 to September 2020, Dr. Marantz served as Senior Vice President of Medical Affairs at Alnylam Pharmaceuticals. Prior to Alnylam, Dr. Marantz has held leadership positions at Alexion, Biogen, ARIAD, and Millennium Pharmaceuticals across development, medical affairs, and business development. Previously Dr. Marantz was a management consultant with Strategic Decisions Group and briefly affiliated with Massachusetts General Hospital following a post-doctoral fellowship at the Dana-Farber Cancer Institute. Dr. Marantz received her medical training from Tongji Medical College, a Ph.D. in Biochemistry and Molecular Biology from Medical University of South Carolina, and an MBA from the University of California at Berkeley. Dr. Marantz 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.

Dr. John H. Markels, Ph.D., joined our Board of Directors in December 2022. Dr. Markels serves on the board of directors of Sangamo Therapeutics and chairs and serves on the advisory boards for the University of California, Berkeley College of Chemistry and University of Delaware Department of Chemical and Biomolecular Engineering, respectively. Dr. Markels retired from Merck & Co., Inc. (“Merck”) in March 2022, most recently as President of Global Vaccines, where he led an integrated team dedicated to discovery and development, supply and access, and global marketing and long-term strategy for the vaccines portfolio. Earlier roles at Merck included President, Latin America from January 2018 to January 2019, SVP, Global Human Health Business Strategy from January 2017 to December 2017, Managing Director, Mexico from November 2013 to January 2017. Prior to his commercial roles, he had a long career in senior leadership positions in global manufacturing, including operations leadership for Europe, Middle East and Africa, Asia Pacific and emerging markets as well as manufacturing technology and product development roles in active pharmaceutical ingredients (API) and vaccines. Dr. Markels received his Ph.D. in chemical engineering from the University of California, Berkeley and his B.S. in chemical engineering from the University of Delaware. Dr. Markels 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 life sciences sector, and because of his management and expertise in the pharmaceutical, manufacturing, and technology sectors.

Dr. Moncef Slaoui, Ph.D., joined our Board of Directors in June 2024. Dr. Slaoui served as a Partner at Medici, a venture capital firm, from July 2017 to March 2021. In May 2020, Dr. Slaoui was appointed as chief advisor to the White House’s Operation Warp Speed initiative, the administration’s national program to accelerate the development, manufacturing, and distribution of COVID-19 vaccines, therapeutics, and diagnostics, where he served until January 2021. Dr. Slaoui served on the board of directors of Vaxcyte, Inc., a publicly traded biotechnology company (NASDAQ: PCVX), from July 2017 to March 2021 and served as the Chairman from May 2018 to March 2021. From September 1988 to July 2017, Dr. Slaoui was employed at GlaxoSmithKline plc (“GSK”), a multinational pharmaceutical company (NYSE: GSK). Between 1988 and 2003, he served in various R&D leadership roles in GSK’s vaccine division. From June 2009 to June 2017, Dr. Slaoui served as the Chairman of Vaccines at GSK, and from June 2003 to June 2006, he served as head of Worldwide Business Development at GSK. From March 2006 to July 2017, he served as Chairman of GSK Pharmaceutical R&D. Dr. Slaoui currently serves on the boards of directors of private biotechnology companies, including ALTESA Biosciences and ZephyrAI. From July 2017 to May 2020, Dr. Slaoui served on the board of directors of Moderna, Inc., a biotechnology company, and from April 2020 to May 2020, Dr. Slaoui served on the board of directors of Lonza Group Ltd. From 2016 to March 2021, Dr. Slaoui served as Chairman of the board of directors of Galvani Bioelectronics, a company launched in November 2016 that GSK jointly owns with Verily Life Sciences. From 1984 to 1988, Dr. Slaoui served as a professor of Immunology at the University of Mons, Belgium. Dr. Slaoui holds a Ph.D. in Molecular Biology and Immunology from the Université Libre de Bruxelles, Belgium. Dr. Slaoui is nominated for re-election on our Board because of his depth of vaccine industry and public company experience.

Effective July 1, 2025, Dr. Slaoui will become Chairman of the Board.

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 Dr. Marquet, Dr. Marantz, Dr. Markels, and Dr. Slaoui (representing seven of our nine 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.

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. Effective July 1, 2025, Dr. Farrell will no longer be Chairman of the Board and will continue as a director, and Dr. Slaoui will become Chairman of the Board.

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 this will continue once Dr. Slaoui is named Chairman.

We believe our current Board’s leadership structure enhances its ability to effectively carry out its roles and responsibilities on behalf of our stockholders.

There are no family relationships among any of our directors and executive officers, nor have any of our directors or executive officers been involved in a legal proceeding that would be required to be disclosed pursuant to either 103(c)(2) or 401(f) of Regulation S-K of the Exchange Act.

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, financial reporting, and cybersecurity. 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 2024, 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

The members of our audit committee are Mr. Barlow, Dr. Holmes and Dr. Markels. 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;
- reviews and discusses with management and the independent auditors the results of our annual audit, our quarterly financial statements and our publicly filed reports; and
- fulfills our Board's oversight responsibility with respect to our cybersecurity policies, overseeing our risk management with respect to cybersecurity, reviewing our adoption and implementation of systems, controls and procedures designed to prevent, detect and respond to cyber-attacks or security breaches involving us, and reviewing our cybersecurity insurance requirements.

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 six meetings during 2024.

Compensation Committee

The members of our compensation committee are Dr. Marquet, Dr. Marantz and Mr. Barlow. Dr. Marquet is currently the chairwoman 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 four meetings during 2024.

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. Marantz and Dr. Markels. 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 two meetings during 2024.

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.

Code of Business Conduct and Ethics

The Company's Code of Business Conduct and Ethics (the "Code of Conduct") is applicable to all directors, officers and employees of the Company and its subsidiaries, including but not limited to the Company's principal executive officer and principal financial officer.

A copy of the Code of Conduct on the corporate governance section of our website, which is located at <https://ir.arcturusrx.com/static-files/d91a5916-5ba8-450b-9a87-11c2b87daf0a>.

Human Capital Management

At Arcturus, dedication to human capital management is a core component of our corporate governance and culture. Our comprehensive approach to human capital management is grounded in our core values of integrity, excellence, and respect for people, which reflect our commitment to creating a safe, supportive, ethical, and rewarding work environment.

As of December 31, 2024, we had approximately 176 employees, of which 174 were full-time and 2 were part-time. Additionally, we are supported by contractors and scientific consultants in most areas of the business. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We consider relations with our employees to be good.

Environmental, Social and Governance Practices

We do not currently have a formal Environmental, Social and Governance Policy (“ESG Policy”) in place, but plan to do so in the future. We anticipate that the ESG Policy, when adopted by the Board, will include “Human Capital Management” as a key component, and focus on various topics, which may or may not include (1) hiring, promotion and talent development; (2) health and safety; (3) compensation and benefits; and (4) diversity and inclusion. Although we have not adopted a formal ESG Policy, our management and leadership incorporates the foregoing and other environmental, social and governance considerations in all matters related to human capital and human capital management.

Insider Trading Policy

We have adopted a written insider trading policy (the “Insider Trading Policy”) governing the purchase, sale, and/or other dispositions of our securities by directors, officers, employees, and certain consultants and independent contractors, which the Company believes is reasonably designed to promote compliance with insider trading laws, rules and regulations, and applicable Nasdaq listing standards.

Employee, Officer and Director Hedging

Pursuant to the Insider Trading Policy, officers, employees, and certain consultants and independent contractors 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

Director Compensation Table

The following table and related footnotes show the compensation paid during the year ended December 31, 2024 to our non-employee directors.

Name	Fees Earned or Paid in	Option	All Other Compensation	Total (\$)
	Cash (\$)	Awards (\$) (1)	(\$)	
Dr. Peter Farrell	65,000	309,000	—	374,000
Mr. James Barlow	65,000	309,000	—	374,000
Dr. Magda Marquet	52,500	309,000	—	361,500
Dr. Edward W. Holmes	57,500	309,000	—	366,500
Dr. Jing L. Marantz	57,500	309,000	—	366,500
Dr. John H. Markels	47,500	309,000	—	356,500
Dr. Moncef Slaoui	60,000	519,000	—	579,000

(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) \$50,000 for service on the Board, (ii) \$10,000 for service on the compensation committee, (iii) \$5,000 for service on the nominating and corporate governance committee, (iv) \$10,000 for service on the audit committee, (v) an additional \$35,000 for the Chairman of the Board, (vi) an additional \$10,000 for the chairman of the compensation committee, (vii) an additional \$5,000 for the chairman of the nominating and corporate governance committee, and (viii) an additional \$10,000 for the chairman of the audit committee.

Inaugural Equity Grants

Each non-employee director who joins the board is granted an equity award of an option to purchase 15,000 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 received 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 until the next expected Annual Shareholder meeting to align with days of service in the year of grant.

PROPOSAL NUMBER 1

ELECTION OF DIRECTORS

Our Board is currently composed of nine 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, Dr. Jing L. Marantz, Dr. John H. Markels, and Dr. Moncef Slaoui 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 (including virtually) 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, to elect each of Dr. Peter Farrell, Joseph E. Payne, Andy Sassine, James Barlow, Dr. Edward W. Holmes, Dr. Magda Marquet, Dr. Jing L. Marantz, Dr. John H. Markels, and Dr. Moncef Slaoui as a director.

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, Dr. Jing L. Marantz, Dr. John H. Markels, and Dr. Moncef Slaoui as a director.

PROPOSAL NUMBER 2

TO APPROVE, BY NON-BINDING ADVISORY VOTE, THE RESOLUTION APPROVING THE COMPANY'S NAMED EXECUTIVE OFFICER COMPENSATION

In accordance with Section 14A of the Exchange Act and the related rules of the SEC, the Company is asking its stockholders to vote to approve, on an advisory (non-binding) basis, the compensation of our named executive officers as disclosed in this proxy statement. This proposal, commonly known as a “say-on-pay” proposal, gives our stockholders the opportunity to express their views on the compensation of our named executive officers. This vote is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers and the principles, policies and practices described in this proxy statement. Accordingly, the following advisory resolution is submitted for stockholder vote at the annual meeting:

RESOLVED, that the stockholders of Arcturus Therapeutics Holdings Inc. (the “Company”) approve, on an advisory basis, the compensation of the Company’s named executive officers as disclosed in this proxy statement pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the compensation tables regarding named executive officer compensation and the narrative disclosures that accompany the compensation tables.

Although the “say-on-pay” vote is non-binding, the board of directors and the compensation committee will carefully review and consider the voting results when evaluating our named executive officer compensation program.

Required Vote

The Say on Pay Proposal requires the affirmative “FOR” vote of a majority of the votes cast on the proposal at the annual meeting. You may vote “FOR,” “AGAINST,” or “ABSTAIN” on this proposal.

Board Recommendation

Our Board recommends a vote “FOR” the approval of the non-binding advisory resolution approving the Company’s Named Executive Officer compensation.

PROPOSAL NUMBER 3

**RATIFICATION OF APPOINTMENT OF INDEPENDENT
REGISTERED PUBLIC ACCOUNTING FIRM**

Our audit committee has appointed Deloitte as the independent registered public accounting firm to audit our consolidated financial statements for the year ending December 31, 2025.

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 Deloitte 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 Deloitte is expected to be present virtually 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 Independent Registered Public Accounting Firm

The following table sets forth the fees billed to us and our subsidiaries by Deloitte, an independent registered public accounting firm, which served as our principal accountant for the year ended December 31, 2024.

(US Dollars in thousands)	2024	2023
Audit fees(1)	\$ 989	\$ —
Audit-related fees	—	—
Tax fees(2)	184	139
All other fees(3)	79	68
Total	\$ 1,252	\$ 207

- (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 rendered by our respective principal accountants in connection with tax compliance, tax planning and tax advice.
- (3) Primarily relates to Sarbanes-Oxley Act of 2002 analysis, received in 2024 but pertaining to financial statements for the year ended December 31, 2023.

All fees described above were pre-approved by the audit committee. No fees were paid to Deloitte for accounting services for the year ended December 31, 2023.

The following table sets forth the fees billed to us and our subsidiaries by Ernst & Young LLP ("E&Y"), the Company's former independent registered public accounting firm, which served as our principal accountant for the year ended December 31, 2023.

(US Dollars in thousands)	2024	2023
Audit fees(1)	\$ —	\$ 1,345
Audit-related fees	—	—
Tax fees(2)	—	17
All other fees(3)	140	—
Total	\$ 140	\$ 1,362

- (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 rendered by our respective principal accountants in connection with tax compliance, tax planning and tax advice.
- (3) Primarily relates to services rendered in connection with Registration Statements on Form S-8.

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

Auditor Independence

In 2024, there were no other professional services provided by Deloitte or E&Y that would have required our audit committee to consider their compatibility with maintaining the independence of Deloitte or E&Y.

Change of Independent Public Accounting Firm

On April 5, 2024, the audit committee authorized the dismissal of E&Y as the Company's independent registered public accounting firm, and E&Y was dismissed as the Company's independent registered public accounting firm as of such date. E&Y served as the Company's independent registered public accounting firm for the fiscal year ended December 31, 2023 and 2022 and the subsequent periods through April 5, 2024. E&Y's report on the Company's consolidated financial statements as of and for the years ended December 31, 2023 and 2022 did not contain an adverse opinion or disclaimer of opinion, and were not qualified or modified as to uncertainty, audit scope or accounting principles.

During the Company's fiscal years ended December 31, 2023 and 2022 and the subsequent interim period through April 5, 2024: (i) there were no disagreements between the Company and E&Y on any matters of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of E&Y, would have caused them to make reference to the subject matter of the disagreements in connection with their opinion on the Company's consolidated financial statements; and (ii) there were no "reportable events" (as described in Item 304(a)(1)(v) of Regulation S-K).

Effective April 5, 2024, the audit committee authorized the appointment of Deloitte as the Company's new independent registered public accounting firm for the fiscal year ending December 31, 2024, and Deloitte was appointed as the Company's independent registered public accounting firm. The decision to change the Company's principal independent accountants was the result of a competitive process undertaken by management and the audit committee as well as the Company's focus on reducing its general and administrative expenses. During the Company's fiscal years ended December 31, 2023 and 2022, and the subsequent interim period through April 5, 2024, neither the Company nor anyone acting on behalf of the Company had consulted Deloitte regarding either: (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's financial statements, nor did Deloitte provide a written report or oral advice to the Company that Deloitte concluded was an important factor considered by the Company in reaching a decision as to the accounting, auditing or financial reporting issues; or (ii) any matter that was either the subject of a "disagreement" (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) or a "reportable event" (as described in Item 304(a)(1)(v) of Regulation S-K).

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 Deloitte as our independent registered public accounting firm for the year ending December 31, 2025 requires the affirmative “FOR” vote of a majority of the votes cast on the proposal at the annual meeting. You may vote “FOR,” “AGAINST,” or “ABSTAIN” on this proposal.

Board Recommendation

Our Board recommends a vote “FOR” the ratification of the appointment of Deloitte as our independent registered public accounting firm for the year ending December 31, 2025.

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 six meetings in 2024. 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 2024 with the management of Arcturus;
- discussed with Deloitte, Arcturus' independent registered public accounting firm for fiscal year 2024, 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 Deloitte as required by applicable requirements of the PCAOB regarding Deloitte's communications with the audit committee concerning independence, and has discussed with Deloitte its independence.

Based on the audit committee's review of the audited financial statements and the various discussions with management and Deloitte, 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, 2024 for filing with the SEC.

James Barlow
Dr. Edward Holmes
Dr. John H. Markels

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.

Name	Age	Position(s)
Joseph E. Payne	53	President and Chief Executive Officer
Andy Sassine	60	Chief Financial Officer
Dr. Padmanabh Chivukula	46	Chief Scientific Officer and Chief Operating Officer
Lance Kurata	55	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 nano particle technology.

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, Chief Financial Officer and our other two most highly compensated executive officers who were serving as executive officers on December 31, 2024 (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
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. 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 do 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 securing new 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. For more information, see the section titled “Company Performance Objectives” in this proxy statement. 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 significant accomplishments from January 2024 through December 2024.

We made significant progress in 2024 and met several key corporate goals. Commercial sales of KOSTAIVE, the sa-mRNA COVID vaccine that we developed, began in October 2024 in Japan by Meiji Seika Pharma (“Meiji”), CSL Seqirus’ exclusive partner in Japan, marking the first commercial sales of an Arcturus-developed product. In February 2025, we received approval of KOSTAIVE from the European Commission (EC), which provided further validation of our platform by another significant regulatory authority.

We initiated dosing in a Phase 1 clinical trial of a novel seasonal influenza sa-mRNA vaccine candidate under our collaboration with CSL Seqirus in January 2024. In December 2024, we initiated dosing of an sa-mRNA vaccine candidate against pandemic avian influenza (bird flu) in a Phase 1 trial funded by the Biomedical Advanced Research and Development Authority (“BARDA”).

In our OTC program, we completed dosing of eight subjects in August 2024 in a Phase 2 double-blind multiple-dose study of ARCT-810. In the second quarter of 2024, we expanded the Phase 2 clinical program of ARCT-810 with an open-label, multiple-dose study which initiated dosing in December 2024. ARCT-810 has received Orphan Drug Designation from the FDA and Orphan Medicinal Product Designation from the European Medicines Agency (the “EMA”) for treatment of OTC deficiency, as well as Fast Track Designation and Rare Pediatric Disease Designation from the FDA.

In our CF program, we initiated dosing in December 2024 in a Phase 2 multiple ascending dose study of ARCT-032 designed to identify a safe and effective dose in people with Class I (null) CFTR mutations and other CF patients who do not benefit from CFTR modulators. In July 2024, we completed dosing and follow-up visits for seven participants in a safety and tolerability Phase 1b clinical study in New Zealand of ARCT-032 in adults with CF. ARCT-032 has received Orphan Drug Designation by the FDA and Orphan Medicinal Product Designation by the EMA for the treatment of CF, and Rare Pediatric Disease Designation from the FDA.

We also improved our platform technologies and advanced our early-stage research activities and manufacturing process development and operations. We conducted exploratory platform development activities, including the evaluation of genome editing, and new targeting approaches, where our LUNAR and STARR platforms could potentially be useful for identification and development of additional products for our portfolio. Also, with our sourcing partners, we manufactured cGMP (current good manufacturing practices) batches yielding significant quantities of clinical trial materials for global studies of our candidates, and with our collaborator, CSL Seqirus, we have established commercial production processes for the COVID-19 vaccine program.

The above accomplishments, milestones and advancements, together with those achieved by the Company since inception, directly resulted in (1) the development, launch and advancement by the Company of a significant drug candidate pipeline; (2) non-clinical and clinical development, and commercialization, of the Company’s LUNAR-COVID program; (3) the development and launch of an organization and infrastructure designed to execute on the Company’s mission of becoming a leading RNA medicines company; and (4) the establishment of a collaboration that has provided, and we expect will continue to provide significant economic and clinical benefits. 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.

CEO Compensation

The Company assesses executive compensation on an annual basis and makes annual equity grants in December of each year. During 2024, the total compensation reported in the Summary Compensation Table for our CEO was below the median of the peer data reviewed by the compensation committee and was 24% lower than the amount reported in 2023, with 2024 Total Direct Compensation in the Summary Compensation Table also below-median and lower than 2023 for all NEOs. This is to reflect the fact that our stock price decreased by approximately 46% in the same period.

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 have 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. There were no full value equity awards that guarantee value if the stock price does not increase, also known as restricted share or restricted stock units, granted to NEOs in 2024.
- ☒ ***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.
- ☒ ***Periodic Peer Group Review.*** The compensation committee periodically reviews the Company's compensation peer group and uses the market data for context, although it does not target any specific percentile.

- ☒ *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.
- ☒ *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 spending 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.
- ☒ *No Stock Option Repricing Without Stockholder Approval.* Our equity incentive plans prohibit us from repricing, exchanging or otherwise providing value for underwater stock options.
- ☒ *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.
- ☒ *No Fixed Employment Terms or Guaranteed Future Compensation.* We do not have employment contracts with our executive officers that provide guaranteed terms of employment or guaranteed future compensation levels.
- ☒ *No Funded Pension or Retirement Plans.* We do not provide any guaranteed or funded retirement plan benefits other than matching under the Company’s 401(k) plan.
- ☒ *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 June 2024, approximately 94.9% of the votes cast on the say-on-pay proposal were voted in favor of the proposal. After considering the 2024 say-on-pay vote, including the compensation views expressed by our largest shareholders through regular outreach conducted by management, the compensation committee reaffirmed the fundamental design and elements of our executive compensation program and did not make any material changes to the structure of 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 feed-back when making future compensation decisions for the NEOs. At our 2022 annual meeting of stockholders which was held on June 21, 2022, a majority of stockholders present at the meeting selected “One Year” 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 seek an advisory say-on-pay vote at each annual meeting of stockholders.

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 2024 as a minimum guarantee of compensation to secure their ongoing employment and dedication.
2. Short-Term Incentive Compensation. Each NEO was eligible to earn an incentive cash compensation payment for the 2024 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. The purpose is to drive short-term performance as milestones towards the goal of creating long-term value for stockholders.
3. Long-Term Incentive Compensation. Each NEO was awarded a stock option grant during 2024, subject to a time-based vesting schedule. The purpose of the stock option grants is to reward growth in the stock price without a guarantee of value if there is no stock price growth after grant, with a multi-year vesting schedule to support retention of key employees and a long-term value orientation.

We review peer group company data regarding the mix of current and long-term incentive compensation and between cash and non-cash compensation, though 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.

Use of Peer Company Data

We periodically review the compensation practices of our peer group companies identified below, and 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.

The peers from which benchmark compensation information was reviewed were of similar size and commercial stage. The Company's 2024 compensation decisions were made prior to the start of the year using data from a 2022 study of similar companies with median 2022 market capitalization that was close to our 2022 market capitalization size at the time the peers were chosen. Most peer companies reviewed in 2023 were drug development and vaccine companies, as follows:

AnaptysBio	RegenXBio
Arbutus BioPharma	Sangamo
Cytokinetics	Sorrento Therapeutics
Editas	Sutro BioPharma
Epizyme	Traverse Therapeutics
Geron	Vaxart
Heron Therapeutics	Viking Therapeutics
Inovio Pharmaceuticals	WaVe Life Sci
Kura Oncology	

The 2024 equity compensation decisions were made using updated peer group data as context. During 2024, the outside compensation committee and F.W. Cook, facilitated determination of the composition of our 2024 peer group used as market context for 2024 equity compensation decisions. The committee considered generally commercial stage companies with broadly similar market capitalization to recognize the expected commercial sales of ARCT-154 that began in the fourth quarter of 2024. The 2024 peer group of companies reviewed as context when determining 2024 equity compensation decisions and 2025 cash compensation decisions consisted of the following companies:

ACADIA	Ironwood
Blueprint	Novavax
Coherus	PTC
Collegium	Traverse
Corcept	Ultragenyx
Dynavax	Vanda
Heron	Vir Biotechnology
Insmed	

We do not set compensation at any specific level or percentile based solely on the peer group data, although we reviewed and discussed the compensation data for the peer group companies to help inform executive compensation decisions. . 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.

The cash compensation of all NEOs in 2024 was at or below the median of the 2024 compensation peer group and equity award values and total compensation values was also set below the median of the 2024 peer group for all of the NEOs in this proxy.

Base Salary

Base salary provides NEOs with a specified minimum level of cash compensation, which we believe is important to attract and retain their services. 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, internal pay equity, and our commercial stage. We do not use a formula or assign a particular weight to any one factor and the determination of base salary levels is subjective.

There were no NEO salary increases in 2024 to conserve Company cash and focus on long-term equity compensation. NEO 2024 salaries were frozen despite the expectation that ARCT-154 would begin commercial sales in late 2024, which occurred.

Base salaries in 2023 for 2024 were as follows:

Name and Principal Position	2023 Salary (\$)	2024 Salary (\$)	Change (\$)	Change (%)
<i>Joseph E. Payne</i> <i>President and Chief Executive Officer, Director</i>	698,000	695,000	(3,000)	0%
<i>Dr. Padmanabh Chivukula</i> <i>Chief Scientific Officer, Chief Operating Officer</i>	550,000	550,000	—	0%
<i>Andy Sassine</i> <i>Chief Financial Officer</i>	550,000	550,000	—	0%
<i>Lance Kurata</i> <i>Chief Legal Officer</i>	500,000	500,000	—	0%

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 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 2024, so there is a degree of qualitative judgment in the final score.

After 2024 corporate performance was determined, 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 2024. The NEOs were each assigned a target annual incentive for 2024 ranging from 40% to 60% of base salary. The table below shows the target annual incentive assigned by us to each NEO for 2024 both as a dollar amount and as a percentage of base salary.

Name	Target Annual Incentive for 2024 (\$)	Target Annual Incentive for 2024 (% of Base Salary)
Joseph E. Payne	417,000	60
Dr. Padmanabh Chivukula	275,000	50
Andy Sassine	275,000	50
Lance Kurata	200,000	40

Company Performance Objectives.

The Company's 2024 corporate objectives were as follows:

- Advance Therapeutics Pipeline
 - o ARCT-810: Phase 2 biological POC data (i.e. biomarker changes)
 - o ARCT-032: Phase 1b enrollment completed H1 2024; Phase 2 FDA approval to proceed H2 2024
 - o Publish in a high impact peer-reviewed journal
- Partnered Vaccine Pipeline
 - o Kostaive® Updated Monovalent Covid Vaccine (CSL, Meiji): JP Approval
 - o Kostaive® Bivalent Covid Vaccine (CSL, Meiji): Phase 3 Topline Data H1 2024, JP Approval H2 2024
 - o Seasonal Flu Vaccine (CSL): Phase 1 enrollment complete H1 2024; Topline Data H2 2024
 - o Pandemic Flu Vaccine (BARDA): Initiate Phase 1
- Collaboration Management
 - o Complete Manufacturing Technology Transfer
 - o Strengthen Operations Leadership
 - o Keep collaborations in good standing
- Non-dilutive Funds
 - o \$100M: Includes CSL Reward Milestones, JP Covid Vaccine Revenues, CF Foundation Funding, BD activities
 - o Upside bonus -- sale of ARCALIS equity
- Operations (Financial, Legal, Budget Discipline)
 - o Achieve Budget
 - o SEC Filings: On-time; SOX404: Compliant
 - o Corporate Policies / Compliance: Implementation and Monitoring
 - o Intellectual Property: New filings and maintenance; trade secrets database, trademark registrations

Actual Annual Incentives Earned for 2024

The board of directors also recognized certain accomplishments directly related to management efforts including those listed above in *Company Performance Highlights*.

The compensation committee, in consultation with Mr. Payne, determined that the individual contribution of each NEO was critical to the Company's successful 2024 performance. Given the Company's corporate objectives, bonuses for 2024 were paid to each of the NEOs as follows: 88% of Mr. Payne's target bonus, 83% of Dr. Chivukula's target bonus, 95% of Mr. Sassine's target bonus, and 90% of Mr. Kurata's target bonus. The amount of each NEO's bonus for the 2024 fiscal year is reported in the Summary Compensation Table, and all were higher than the bonuses paid in the year prior.

Long-Term Incentive Compensation: Equity Awards

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 subject to a multi-year vesting or earn-out schedule. We believe that equity compensation is an effective tool for aligning the interests of our NEOs 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. The value of options reported as long-term incentive compensation awards to the NEOs during 2024 was lower than the value reported in the Summary Compensation Table of the 2023 proxy statement for all NEOs, and the grant values provided to all NEOs was below the median of the 2024 compensation peer data available to the Company at the time awards were made.

Equity Compensation Policy

While we do not have a formal written policy in place with regard to the timing of certain equity awards in relation to the disclosure of material nonpublic information, our Board and the compensation committee of the Board do not seek to time equity grants to take advantage of information, either positive or negative, about our Company that has not been publicly disclosed. It has been our practice generally to grant initial equity awards to our officers and non-employee directors in connection with their hiring or appointment to the Board, as applicable. We generally intend to issue equity awards to our officers at approximately the same time each year, typically in close proximity to the end of the fiscal year. In addition, non-employee directors generally receive grants of initial and annual equity awards, at the time of a director's initial appointment or election to the Board and at the time of each annual meeting of our stockholders, respectively, pursuant to our director compensation policy. Option grants generally are effective on the date the award determination is made by the compensation committee or the Board, as the case may be, and the exercise price of options is typically based upon the Fair Market Value of our common stock as defined in our 2019 Omnibus Equity Incentive Plan, as amended and restated (the "2019 Plan").

During the fiscal year ended December 31, 2024, we did not award any equity awards to a named executive officer in the period beginning four business days before the filing of a periodic report on Form 10-Q or Form 10-K, or the filing or furnishing of a current report on Form 8-K that discloses material nonpublic information, and ending one business day after the filing or furnishing of such report.

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.

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.

Clawback Policy

We have adopted a written compensation recovery policy in accordance with applicable Nasdaq rules, a copy of which is filed as an exhibit to our most recent Annual Report on Form 10-K. The policy generally provides that we will seek to recover any incentive-based compensation erroneously awarded to any current or former executive officer due to material noncompliance with any financial reporting requirement under the securities laws during the three completed fiscal years immediately preceding the date we determine that an accounting restatement is required.

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 compensation levels of our executive officers and when setting specific individual and corporate performance guidelines under our annual executive incentive bonus plan. Our chief executive officer has no input and is not present during voting or deliberations about his own 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, 2024, which consist of all individuals who served as our principal executive officer and principal financial officer during 2024 and our two 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, 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>	2024	695,000	367,000	2,635,000	—	3,697,000
	2023	698,000	208,500	3,986,000	—	4,892,500
	2022	630,000	504,000	4,460,000	—	5,594,000
Dr. Padmanabh Chivukula <i>Chief Scientific Officer, Chief Operating Officer</i>	2024	550,000	228,000	807,000	—	1,585,000
	2023	550,000	137,500	2,491,000	—	3,178,500
	2022	525,000	262,500	2,318,500	—	3,106,000
Andy Sassine <i>Chief Financial Officer, Director</i>	2024	550,000	261,000	807,000	—	1,618,000
	2023	550,000	137,500	1,495,000	—	2,182,500
	2022	525,000	301,875	2,318,500	—	3,145,375
Lance Kurata <i>Chief Legal Officer</i>	2024	500,000	180,000	807,000	—	1,487,000
	2023	500,000	100,000	1,495,000	—	2,095,000
	2022	435,000	304,500	442,500	—	1,182,000

(1) Bonuses in this column were the cash bonuses approved by the Board and/or compensation committee of the Board after reviewing completion and progress against the corporate goals for 2024.

(2) Amounts shown in this column do not reflect take-home or salable value from the options granted, but rather reflects a theoretical present value of the grant opportunity computed in accordance with FASB ASC 718. The actual economic value that may be realized by the applicable NEO could be quite different than the amounts shown and is currently not equal to the amounts shown. Includes the value of stock options determined using the grant date fair value computed in accordance with FASB ASC 718. See Note 2 to the consolidated financial statements of the Company for the fiscal years ended December 31, 2022, December 31, 2023, and December 31, 2024 in the Form 10-K filed by the Company on March 6, 2025, for additional description of the assumptions used in the valuation.

2024 GRANTS OF PLAN-BASED AWARDS

The following table provides certain information regarding the December 2024 options which represent equity awards approved and granted to our named executive officers during the fiscal year ended December 31, 2024. These equity awards were granted under the Amended and Restated 2019 Omnibus Equity Incentive Plan, as amended.

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	12/16/2024	196,000	16.24	2,635,000
Dr. Padmanabh Chivukula	12/16/2024	60,000	16.24	807,000
Andy Sassine	12/16/2024	60,000	16.24	807,000
Lance Kurata	12/16/2024	60,000	16.24	807,000

(1) Represents the grant date and approval date fair values of option awards granted during the fiscal years ended December 31, 2024, calculated in accordance with FASB ASC Topic 718.

2024 OPTION EXERCISES AND STOCK VESTED

None of the NEOs exercised any options during the fiscal year ended December 31, 2024. None of the NEOs held any restricted stock awards during the fiscal year ended December 31, 2024.

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 "*Severance and Change of Control Benefits*." The annual base salary amounts and performance bonus targets provided for under the employment agreements, summarized below, are subject to increase upon approval by the compensation committee of the Board as described elsewhere in this proxy statement. See "Base Salary" and "Short-Term Incentive Compensation."

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 \$695,000, 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, 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 18 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) eighteen 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. 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 \$550,000, paid in bi-monthly installments.
- An annual bonus of up to 50% 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 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 12 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 \$550,000, paid in bi-monthly installments.
- An annual bonus of up to 50% 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 12 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 twelve (12) 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.

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 \$500,000, 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 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 12 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) 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. Kurata will also be entitled to payment of certain health insurance coverage premiums (COBRA) for up to twelve (12) 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 "*Termination and Change of Control Potential Payments and Benefits Table*" for details on the amounts of such payments.

Under the employment agreements with our named executive officers, "good reason" constitutes a resignation from employment with the Company in connection with the occurrence of any of the following 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 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) a reduction in duties which results from the 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" (e.g., where an executive undertakes temporary additional responsibilities until a President and/or Chief Executive Officer is appointed); 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 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 will not duplicate 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 "Severance and Change of Control Benefits." 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. Generally, any benefits conferred on an executive officer as a result of a change of control require such officer to execute a signed and dated general release of known and unknown claims in a termination agreement acceptable to the Company.

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, 2024. 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, 2024 was \$16.97, which was the closing market price of our common stock on the Nasdaq on such date.

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 termination or if Award not Assumed, Substituted or Continued by the Acquiring Entity ⁽²⁾ (\$)
Joseph Payne^{(4) (5)}			
Cash Severance	\$ 1,409,500	1,409,500	—
Equity Treatment	—	—	7,356,495
Health and Welfare	\$ 13,700	13,700	—
TOTAL	\$ 1,423,200	1,423,200	7,356,495
Dr. Padmanabh Chivukula^{(3) (5)}			
Cash Severance	\$ 778,000	778,000	—
Equity Treatment	—	—	2,789,444
Health and Welfare	\$ 9,100	9,100	—
TOTAL	\$ 787,100	787,100	2,789,444
Andy Sassine⁽³⁾⁽⁵⁾			
Cash Severance	\$ 811,000	811,000	—
Equity Treatment	—	—	3,319,756
Health and Welfare	\$ 9,100	9,100	—
TOTAL	\$ 820,100	820,100	3,319,756
Lance Kurata⁽³⁾⁽⁵⁾			
Cash Severance	\$ 680,000	680,000	—
Equity Treatment	—	—	2,715,200
Health and Welfare	\$ 9,100	9,100	—
TOTAL	\$ 689,100	689,100	2,715,200

(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 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 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 12 months following the date of termination or resignation for good reason. This amount is calculated based on the current market rate of COBRA premiums in California.

(4) For Cash Severance, amount represents the payment of an amount equal to 18 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 18 months following the date of termination or resignation for good reason. This amount is calculated based on the current market rate of COBRA premiums in California.

(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, 2024.

CEO PAY RATIO

For 2024, Mr. Payne’s total annual compensation as disclosed in the Summary Compensation Table was \$3,697,000, and the total annual compensation for our median employee was \$269,150, resulting in a pay ratio of 13.7 (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 2024, 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.

Results

The table below shows the information used for the calculation of the ratio of the estimated annual total compensation of the median employee identified using the methodology described above to the annual total compensation of Mr. Payne as calculated for the Summary Compensation Table.

	Year	Salary (\$)	Bonus (\$)	Option Awards (\$)	All Other Compensation (\$)	Total (\$)
Joseph E. Payne	2024	695,000	367,000	2,635,000	—	3,697,000
Median Employee	2024	167,000	25,000	39,000	—	231,000

Ratio of Median Employee's to Mr. Payne's Annual Total Compensation

Pay Versus Performance Disclosure

In accordance with rules adopted by the Securities and Exchange Commission pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, we provide the following disclosure regarding executive compensation for our principal executive officer ("PEO") and Non-PEO NEOs and Company performance for the fiscal years listed below. For the most recently completed fiscal year, we did not use any financial performance measure to link Compensation Actually Paid to our NEOs to the Company's performance; accordingly, this disclosure does not present a company-selected measure in the table below nor a tabular list of our most important performance measures, as permitted under the rules promulgated by the Securities and Exchange Commission. The Compensation Committee did not consider the pay versus performance disclosure below in making its pay decisions for any of the years shown.

Year	Summary Compensation Table Total for Joseph E. Payne ¹ (\$)	Compensation Actually Paid to Joseph E. Payne ^{1,2,3} (\$)	Average Summary Compensation Table Total for Non-PEO NEOs ¹ (\$)	Average Compensation Actually Paid to Non-PEO NEOs ^{1,2,3} (\$)	Value of Initial Fixed \$100 Investment based on: ⁴		Net Income (\$ Millions)
					TSR (\$)	Peer Group TSR (\$)	
2024	3,696,808	(2,140,684)	1,562,907	(1,198,861)	156.12	113.84	(80.9)
2023	4,892,500	9,794,227	2,485,333	4,673,949	290.06	115.42	(29.7)
2022	5,594,000	2,673,712	3,125,688	1,256,688	156.03	111.27	9.3
2021	960,000	62,056	676,000	232,220	340.48	124.89	(203.7)
2020	12,861,500	14,070,814	6,286,144	6,715,139	399.08	125.69	(72.1)

1. Joseph E. Payne was our PEO for each year presented. The individuals comprising the Non-PEO NEOs for each year presented are listed below.

2020	2021	2022	2023	2024
Andy Sassine	Andy Sassine	Andy Sassine	Andy Sassine	Andy Sassine
Dr. Padmanabh Chivukula	Dr. Padmanabh Chivukula	Dr. Padmanabh Chivukula	Dr. Padmanabh Chivukula	Dr. Padmanabh Chivukula
Lance Kurata	Lance Kurata		Lance Kurata	Lance Kurata
Dr. Steven Hughes	Dr. Steven Hughes			

2. The amounts shown for Compensation Actually Paid have been calculated in accordance with Item 402(v) of Regulation S-K and do not reflect compensation actually earned, realized, or received by the Company's NEOs. These amounts reflect the Summary Compensation Table Total with certain adjustments as described in footnote 3 below.
3. Compensation Actually Paid reflects the exclusions and inclusions of certain amounts for the PEO and the Non-PEO NEOs as set forth below. Equity values are calculated in accordance with FASB ASC Topic 718. Amounts in the Exclusion of Option Awards column are the amounts from the Option Awards column set forth in the Summary Compensation Table.

Year	Summary Compensation Table Total for Joseph E. Payne (\$)	Exclusion of Option Awards for Joseph E. Payne (\$)	Inclusion of Equity Values for Joseph E. Payne (\$)	Compensation Actually Paid to Joseph E. Payne (\$)
2024	3,696,808	(2,634,808)	(3,202,684)	(2,140,684)
2023	4,892,500	(3,986,000)	8,797,727	9,794,227
2022	5,594,000	(4,460,000)	1,539,712	2,673,712
2021	960,000	—	(897,944)	62,056
2020	12,861,500	(11,911,500)	13,120,814	14,070,814

Year	Average Summary Compensation Table Total for Non-PEO NEOs (\$)	Average Exclusion of Stock Awards and Option Awards for Non-PEO NEOs (\$)	Average Inclusion of Equity Values for Non-PEO NEOs (\$)	Average Compensation Actually Paid to Non-PEO NEOs (\$)
2024	1,562,907	(806,574)	(1,955,194)	(1,198,861)
2023	2,485,333	(1,827,000)	4,215,616	4,673,949
2022	3,125,688	(2,318,500)	449,500	1,256,688
2021	676,000	—	(443,780)	232,220
2020	6,286,144	(5,744,206)	6,173,201	6,715,139

The amounts in the Inclusion of Equity Values in the tables above are derived from the amounts set forth in the following tables:

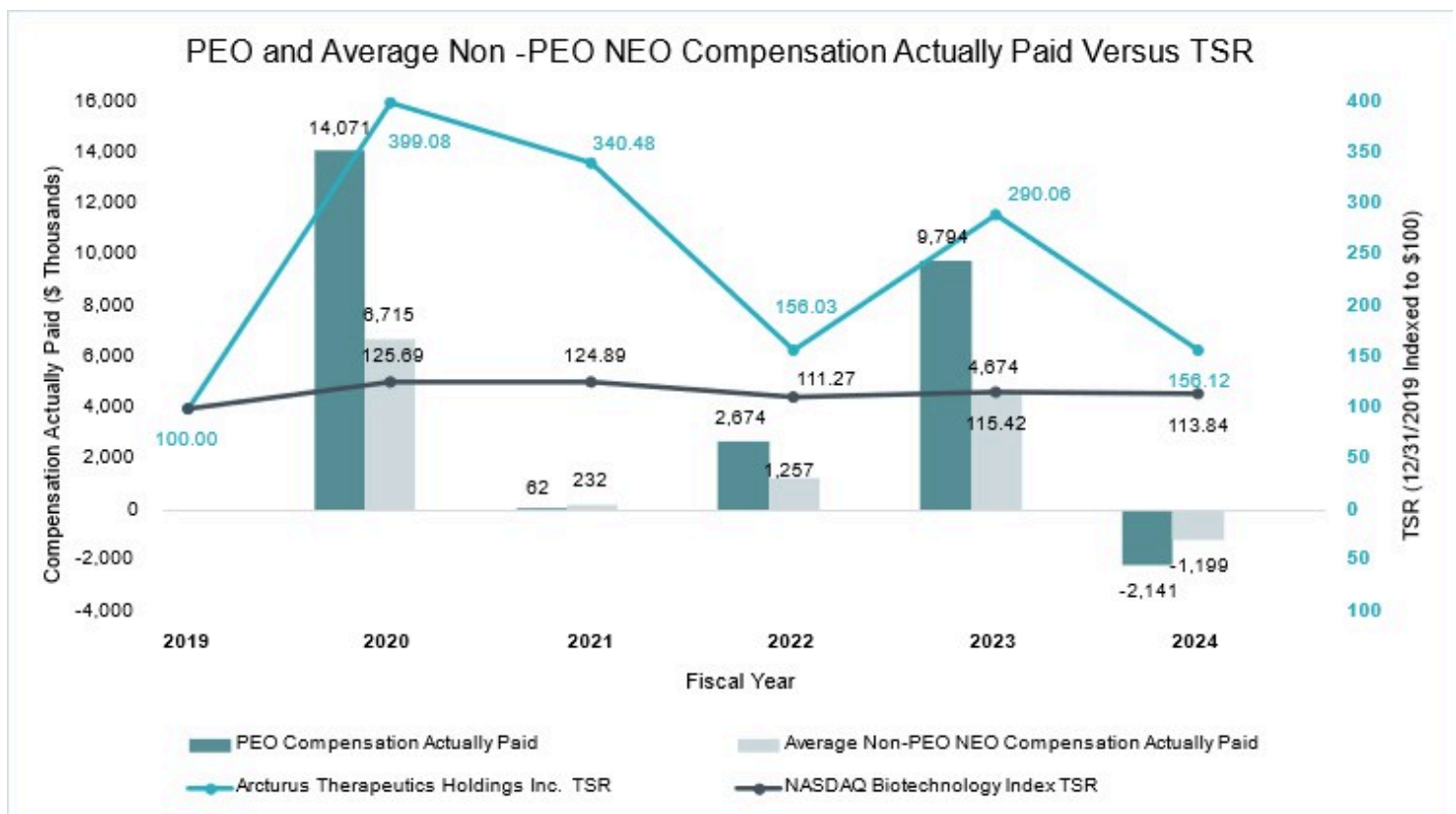
Year	Year-End Fair Value of Equity Awards Granted During Year That Remained Unvested as of Last Day of Year for Joseph E. Payne (\$)	Change in Fair Value from Last Day of Prior Year to Last Day of Year of Unvested Equity Awards for Joseph E. Payne (\$)	Vesting-Date Fair Value of Equity Awards Granted During Year that Vested During Year for Joseph E. Payne (\$)	Change in Fair Value from Last Day of Prior Year to Vesting Date of Unvested Equity Awards that Vested During Year for Joseph E. Payne (\$)	Fair Value at Last Day of Prior Year of Equity Awards Forfeited During Year for Joseph E. Payne (\$)	Total - Inclusion of Equity Values for Joseph E. Payne (\$)
2024	2,402,707	(4,085,364)	—	(1,520,027)	—	(3,202,684)
2023	4,736,522	3,347,013	—	714,192	—	8,797,727
2022	4,561,826	(1,919,615)	456,861	(1,559,360)	—	1,539,712
2021	—	(1,395,948)	—	498,004	—	(897,944)
2020	9,175,385	2,564,309	—	1,381,120	—	13,120,814

Year	Average Year-End Fair Value of Equity Awards Granted During Year That Remained Unvested as of Last Day of Year for Non-PEO NEOs (\$)	Average Change in Fair Value from Last Day of Prior Year to Last Day of Year of Unvested Equity Awards for Non-PEO NEOs (\$)	Average Vesting-Date Fair Value of Equity Awards Granted During Year that Vested During Year for Non-PEO NEOs (\$)	Average Change in Fair Value from Last Day of Prior Year to Vesting Date of Unvested Equity Awards that Vested During Year for Non-PEO NEOs (\$)	Average Fair Value at Last Day of Prior Year of Equity Awards Forfeited During Year for Non-PEO NEOs (\$)	Total - Average Inclusion of Equity Values for Non-PEO NEOs (\$)
2024	735,523	(1,960,718)	—	(729,999)	—	(1,955,194)
2023	2,170,906	1,680,605	—	364,105	—	4,215,616
2022	2,374,286	(1,174,650)	258,888	(1,009,024)	—	449,500
2021	—	(710,024)	—	266,244	—	(443,780)
2020	4,943,576	840,321	—	389,304	—	6,173,201

1. The Company TSR (as defined below) assumes \$100 was invested in the Company for the period starting December 31, 2020 through the end of the listed year. Historical stock performance is not necessarily indicative of future stock performance.

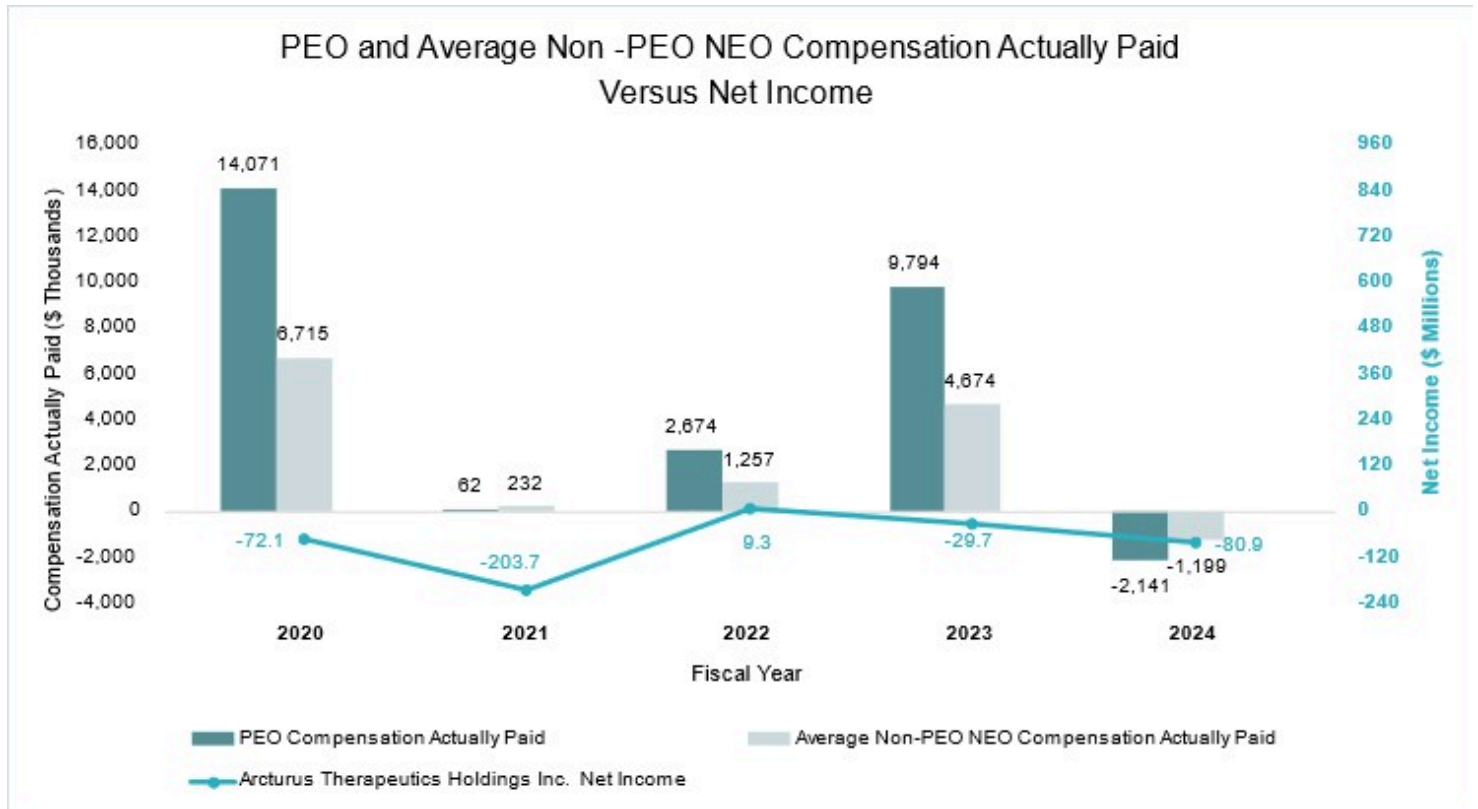
Description of Relationship Between PEO and Non-PEO NEO Compensation Actually Paid and Company Total Shareholder Return (“TSR”)

The following chart sets forth the relationship between Compensation Actually Paid to our PEO, the average of Compensation Actually Paid to our Non-PEO NEOs, and the Company’s cumulative TSR over the three most recently completed fiscal years.



Description of Relationship *Between PEO and Non-PEO NEO Compensation Actually Paid and Net Income*

The following chart sets forth the relationship between Compensation Actually Paid to our PEO, the average of Compensation Actually Paid to our Non-PEO NEOs, and our Net Income during the three most recently completed fiscal years.



Outstanding Equity Awards at Fiscal Year-End for Fiscal 2024

The following table sets forth certain information regarding all outstanding equity awards held by our named executive officers as of December 31, 2024. None of the outstanding equity awards shown in the table below have been exercised or forfeited as of December 31, 2024. None of our named executive officers held any other equity awards from the Company as of December 31, 2024.

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable (1)	Option Exercise Price (\$)	Option Expiration Date
Joseph Payne	120,000	—	8.00	8/24/2028
	60,000	—	4.99	2/7/2029
	100,000	—	14.12	2/18/2030
	175,000	—	99.29	12/18/2030
	112,500	37,500	34.57	12/10/2031
	125,000	125,000	16.92	12/9/2032
	50,000	150,000	28.88	12/15/2033
	—	196,000	16.24	12/16/2034
Dr. Padmanabh Chivukula	80,000	—	8.00	8/24/2028
	40,000	—	4.99	2/7/2029
	60,000	—	14.12	2/18/2030
	100,000	—	99.29	12/18/2030
	63,750	21,250	34.57	12/10/2031
	62,500	62,500	16.92	12/9/2032
	31,250	93,750	28.88	12/15/2033
	—	60,000	16.24	12/16/2034
Andy Sassine	36,250	—	8.00	8/24/2028
	100,000	—	4.53	1/1/2029
	15,000	—	10.23	10/25/2029
	80,000	—	14.12	2/18/2030
	100,000	—	99.29	12/18/2030
	63,750	21,250	34.57	12/10/2031
	62,500	62,500	16.92	12/9/2032
	18,750	56,250	28.88	12/15/2033
—	60,000	16.24	12/16/2034	
Lance Kurata	90,000	—	58.91	8/10/2030
	25,000	—	99.29	12/18/2030
	37,500	12,500	34.57	12/10/2031
	62,500	62,500	16.92	12/9/2032
	18,750	56,250	28.88	12/15/2033
—	60,000	16.24	12/16/2034	

(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 match \$0.50 for every \$1.00 on the first \$5,000.00 of contributions made by the employee with an annual maximum match of \$2,500. 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.

2021 Inducement Equity Incentive Plan

In October 2021, the Company adopted the 2021 Inducement Equity Incentive Plan which covered the award of up to 1,000,000 shares of common stock (the “2021 Inducement Plan”) effective as of October 15, 2021. Only newly-hired employees are eligible to receive awards under the 2021 Inducement Plan. Approval of the Company’s stockholders is not required as a condition to the effectiveness of the 2021 Plan for so long as the plan is in compliance with Nasdaq inducement plan rules. On October 20, 2021, the Company filed a registration statement on Form S-8 with the United States Securities and Exchange Commission to register 1,000,000 awards. In April 2022, the number of shares available for grant under the 2021 Inducement Plan was reduced to 130,000. As of December 31, 2024, a total of 124,697 shares remained available for future issuance under the 2021 Inducement Plan, subject to the terms of the 2021 Inducement Plan.

Equity Compensation Plans

On June 14, 2024, the stockholders of the Company approved the “2019 Plan Amendment”, amending the 2019 Plan. The 2019 Plan Amendment (i) increases the maximum number of shares of common stock available to 2019 Plan participants by 2,000,000 shares to an aggregate of 10,750,000 shares.

The following information is provided as of December 31, 2024 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	8,976,912	30.76	1,060,695
Equity compensation plans not approved by security holders	—	—	—
Total	8,976,912	30.76	1,060,695

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. Jing L. Marantz

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 PARTY TRANSACTIONS

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.

There have been no transactions during the year ended December 31, 2024 involving an amount in excess of \$120,000 to which the Company has been a participant and in which any of its directors, executive officers or holders of more than 5% of its share capital, or any members of their immediate family, had or will have a direct or indirect material interest, other than compensation arrangements which are described under "Executive Compensation" and "Director Compensation."

SECURITY OWNERSHIP

The following table sets forth information with respect to the beneficial ownership of our common stock as of April 8, 2025 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 8, 2025, 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 April 8, shares of common stock outstanding as of April 8, 2025.

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 8, 2025. 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
<i>5% or Greater Stockholders</i>		
Federated Hermes(1)	4,711,512	17.4%
Blackrock(2)	2,743,002	10.1%
Nikko Asset Management Americas, Inc. (3)	2,315,294	8.5%
Sumitomo Mitsui Trust Group, Inc. (3)	2,315,294	8.5%
ARK Investment Management LLC(4)	2,047,687	7.6%
Vanguard Group(5)	1,458,380	5.4%
<i>Directors and Executive Officers</i>		
Joseph E. Payne(6)	2,297,597	8.2%
Andrew Sassine(7)	732,401	2.7%
Pad Chivukula (8)	914,709	3.3%
Lance Kurata(9)	265,000	*
Moncef Slaoui(10)	22,294	*
Peter C Farrell(11)	214,934	*
Magda Marquet(12)	144,311	*
James Barlow(13)	129,369	*
Edward Holmes(14)	106,869	*
Jing Marantz(15)	68,568	*
John Markels(16)	53,855	*
All directors and executive officers as a group (11 persons)	4,949,907	16.6%

* Less than 1%.

- (1) Based solely on an Schedule 13G filed with the SEC on January 17, 2024. The address of Federated Hermes, Inc. is 1001 Liberty Avenue, Pittsburgh, PA 15222-3779.
- (2) Based solely on a Form 13G/A filed with the SEC on April 5, 2024. The address of BlackRock, Inc. is 55 East 52nd Street New York, NY 10055.
- (3) Based solely on a Form 13G filed with the SEC on November 5, 2024 jointly by Sumitomo Mitsui Trust Group, Inc. (“SMTG”) and Nikko Asset Management Co., Ltd. (“NAMC”), and a Form 13G filed with the SEC on November 8, 2024 by Nikko Asset Management Americas, Inc. (“NAMA”, together with SMTG and NAMC, the “Sumitomo Entities”). The address of SMTG is 1-4-1 Marunouchi, Chiyoda-ku, Tokyo 100-8233, Japan. The address of NAMC is Midtown Tower, 9-7-1 Akasaka, Minato-ku, Tokyo 107-6242, Japan. The address of NAMA is 605 Third Avenue, 38th Floor, New York, NY 10158. As set forth in the Form 13G filed jointly by SMTG and NAMC, the securities reported by SMTG and NAMC as parent holding companies are owned, or may be deemed to be beneficially owned, by their subsidiary, NAMA. As set forth in the Form 13G filed by NAMA, the securities being reported by NAMA as subsidiary of SMTG and NAMC are owned, or may be deemed beneficially owned, by SMTG and NAMC. Based solely on a Form 13G/A filed with the SEC on January 29, 2024.
- (4) The address of ARK Investment Management LLC is 3 East 28th Street, 7th Floor, New York, NY 10016. Based on the Form 13G jointly by SMTG and NAMC, and the Form 13G filed by NAMA, the Sumitomo Entities have beneficial ownership of 2,315,294 shares of common stock in the aggregate.
- (5) Based solely on a Form 13G filed with the SEC on February 13, 2024. The address of The Vanguard Group is 100 Vanguard Blvd. Malvern, PA 19355.
- (6) Includes 817,500 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025; does not include 433,500 shares issuable upon the exercise of options subject to vesting.
- (7) Includes 511,875 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025; does not include 164,375 shares issuable upon the exercise of options subject to vesting.
- (8) Includes 479,375 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025; does not include 195,625 shares issuable upon the exercise of options subject to vesting.
- (9) Includes 265,000 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025; does not include 160,000 shares issuable upon the exercise of options subject to vesting.
- (10) Includes 22,294 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025; does not include 7,500 shares issuable upon the exercise of options subject to vesting.
- (11) Includes 214,934 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025.
- (12) Includes 144,311 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025.
- (13) Includes 129,369 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025.
- (14) Includes 106,869 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025.
- (15) Includes 68,568 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025.
- (16) Includes 53,855 shares issuable upon the exercise of options exercisable within 60 days of April 8, 2025.

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 2024.

Fiscal Year 2024 Annual Report

Our financial statements for our fiscal year ended December 31, 2024 are included in our 2024 annual report, which we will make available to stockholders at the same time as this proxy statement. This proxy statement and our 2024 annual report are posted on our website at <http://www.arcturusrx.com> at the website of the SEC at www.sec.gov. **You may also obtain a copy of our 2024 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 2026 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 December 27, 2025. 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 addition to satisfying all the requirements under the Company's bylaws, to comply with the SEC's new universal proxy rules for the Company's 2025 annual meeting, stockholders who intend to solicit proxies in support of director nominees other than the Company's nominees must provide notice that sets forth all of the information required by Rule 14a-19 under the Exchange Act, the stockholder must have given timely notice of such proposal or nomination, in proper written form. If the stockholder does not also comply with the requirements of Rule 14a-4(c)(2) under the Exchange Act, we may exercise discretionary voting authority under proxies that we solicit to vote in accordance with our best judgment on any such stockholder proposal or nomination. To make a submission or to request a copy of our amended and restated bylaws, stockholders should contact our Corporate Secretary. To be timely for our 2026 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 10, 2026, and
- not later than March 12, 2026

In the event that we hold our 2026 annual meeting of stockholders more than 30 days before or more than 30 days after the one-year anniversary date of the 2025 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 2025 annual meeting. If any other matters properly come before the 2025 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 2025 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
April 25, 2025

YOUR VOTE IS IMPORTANT. PLEASE VOTE TODAY.

**Vote by Internet - QUICK ★★EASY
IMMEDIATE - 24 Hours a Day, 7 Days a Week or by Mail**

**ARCTURUS THERAPEUTICS
HOLDINGS INC.**

Your Internet vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed and returned your proxy card. Votes submitted electronically over the Internet must be received by 11:59 p.m., Eastern Time, on June 5, 2025.



**INTERNET –
www.cstproxyvote.com**

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



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

**PLEASE DO NOT RETURN THE PROXY CARD
IF YOU ARE VOTING ELECTRONICALLY.**

▲FOLD HERE • DO NOT SEPARATE • INSERT IN ENVELOPE PROVIDED▲

PROXY

Please mark
your votes
like this



THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED IN THE MANNER DIRECTED BY THE UNDERSIGNED STOCKHOLDER. IF NO INSTRUCTIONS ARE GIVEN, THIS PROXY WILL BE VOTED FOR THOSE NOMINEES AND THE PROPOSALS LISTED BELOW. DISCRETIONARY VOTING IS HEREBY CONFERRED AS TO CERTAIN MATTERS DESCRIBED IN THE ACCOMPANYING PROXY STATEMENT. THE BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” EACH NOMINEE AND “FOR” PROPOSALS 2 AND 3.

1. Approval of the election of the following individuals as directors of the Company, to serve until the next annual meeting of stockholders.

	FOR	AGAINST	ABSTAIN
2. Approval, by non-binding advisory vote, of the resolution approving the Company’s Named Executive Officer compensation, as provided in Proposal Number 2 of the Proxy Statement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (1) Dr. Peter Farrell
- (2) Joseph E. Payne
- (3) Andy Sassine
- (4) James Barlow
- (5) Dr. Edward W. Holmes
- (6) Dr. Magda Marquet
- (7) Dr. Jing L. Marantz
- (8) Dr. John Markels
- (9) Dr. Moncef Slaoui

FOR all
Nominees listed
to the left

WITHHOLD AUTHORITY
to vote (except as marked to
the contrary for all nominees listed
to the left)

3. Ratification of the appointment of Deloitte & Touche LLP as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2025.

	FOR	AGAINST	ABSTAIN
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Instruction: To withhold authority to vote for any individual nominee, strike a line through that nominee’s name in the list above)

CONTROL NUMBER

Signature _____ Signature if held jointly _____ Date _____, 2025.

Note: Please sign exactly as your name appears on this Proxy. When shares are held jointly, each holder should sign. When signing as an executor, administrator, trustee, or guardian, please give the full title as such. If the signer is a corporation, please sign the full corporate name by a duly authorized officer, giving full title as such. If the signer is a partnership, please sign in partnership name by authorized person.

**Important Notice Regarding the Internet Availability of Proxy
Materials for the Annual Meeting of Stockholders
to be held Friday, June 6, 2025**

**To view the 2025 Proxy Statement and
the 2024 Annual Report please go to:
<https://www.cstproxy.com/arcturusrx/2025>**

▲FOLD HERE • DO NOT SEPARATE • INSERT IN ENVELOPE PROVIDED▲

PROXY

**PROXY FOR ANNUAL MEETING OF STOCKHOLDERS TO BE HELD JUNE 6, 2025
THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS**

ARCTURUS THERAPEUTICS HOLDINGS INC.

The undersigned appoints Joseph E. Payne and Andy Sassine, and each of them, agents and proxies of the undersigned, with full power of substitution to each of them, to represent and to vote on behalf of the undersigned all the Common Stock of Arcturus Therapeutics Holdings Inc. (the “Company”) which the undersigned is entitled to vote at the Annual Meeting of Stockholders (the “Meeting”) to be held at 9:00 a.m. (Pacific Time) on Friday, June 6, 2025, and at any adjournments or postponements thereof, upon the following matters on the reverse side, which are more fully described in the Proxy Statement relating to the Meeting.

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