

August 8, 2025

Dear Stockholder:

You are cordially invited to attend the 2025 Annual Meeting of Stockholders (which we refer to as the “Annual Meeting”) of Lantern Pharma Inc., a Delaware corporation (which we refer to as “Lantern,” “we,” “us,” “our,” or the “Company”), to be held at 11:00 a.m. Eastern time, on Friday, September 19, 2025.

This year’s Annual Meeting will be conducted via live audio webcast and online stockholder tools. Stockholders will be able to attend and listen to the Annual Meeting live, submit questions and vote their shares electronically at the Annual Meeting from virtually any location around the world.

At the Annual Meeting, you will be asked to consider and vote upon the following proposals to: (1) elect six (6) directors to serve for the ensuing year as members of the Board of Directors of the Company; (2) approve the one-time repricing of certain stock options granted under the Second Amended and Restated 2018 Lantern Pharma Inc. Equity Incentive Plan, as amended; (3) ratify the appointment of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025; and (4) approve an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the foregoing proposals. The accompanying Proxy Statement describes these matters in more detail. We urge you to read this information carefully.

The Board of Directors recommends a vote: FOR each of the six (6) nominees for director named in the Proxy Statement; FOR the approval of the one-time repricing of certain stock options granted under the Second Amended and Restated Lantern Pharma Inc. 2018 Equity Incentive Plan, as amended; FOR the ratification of the appointment of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025; and FOR an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the foregoing proposals.

Whether or not you plan to attend the Annual Meeting in person, and regardless of the number of shares of Lantern that you own, it is important that your shares be represented and voted at the Annual Meeting. Therefore, I urge you to vote your shares of common stock via the Internet or by promptly marking, dating, signing, and returning a proxy card in the envelope provided. Voting over the Internet, or by written proxy, will ensure that your shares are represented at the Annual Meeting.

On behalf of the Board of Directors of Lantern, we thank you for your participation.

Sincerely,

*/s/ Donald J. Keyser*

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Donald J. Keyser,

*Chairman of the Board of Directors*

**LANTERN PHARMA INC.**  
**1920 McKinney Avenue, 7<sup>th</sup> Floor**  
**Dallas, Texas 75201**

**NOTICE OF 2025 ANNUAL MEETING OF STOCKHOLDERS**  
**TO BE HELD ON SEPTEMBER 19, 2025**

The 2025 Annual Meeting of Stockholders (which we refer to as the “Annual Meeting”) of Lantern Pharma Inc., a Delaware corporation (which we refer to as “Lantern,” “we,” “us,” “our,” or the “Company”), will be held on Friday, September 19, 2025 at 11:00 a.m. Eastern time. This year’s meeting is a virtual stockholder meeting conducted exclusively via a live audio webcast at [www.virtualshareholdermeeting.com/LTRN2025](http://www.virtualshareholdermeeting.com/LTRN2025). Stockholders will be able to attend and listen to the Annual Meeting live, submit questions and vote their shares electronically at the Annual Meeting from virtually any location around the world. In order to attend and vote at the Annual Meeting, please follow the instructions in the section titled “Voting at the Meeting” on page 3. We will consider and act on the following items of business at the Annual Meeting:

1. To elect six (6) directors to serve as members of the Board of Directors of the Company (which we refer to as our “Board”) until the next annual meeting of stockholders and until their successors are duly elected and qualified. The director nominees named in the Proxy Statement for election to our Board are: Donald Jeff Keyser, Panna Sharma, Vijay Chandru, Maria Maccicchini, Lee T. Schalop, and David S. Silberstein;
2. To approve the one-time repricing of certain stock options granted under the Second Amended and Restated Lantern Pharma Inc. 2018 Equity Incentive Plan, as amended (the “Equity Incentive Plan”);
3. To ratify the appointment of EisnerAmper LLP as the Company’s independent registered public accounting firm for the year ending December 31, 2025; and
4. To approve an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the foregoing proposals.

We intend to commence mailing the Annual Report, Notice of Meeting, Proxy Statement and Proxy Card on or about August 11, 2025 to all stockholders entitled to vote at the Annual Meeting.

The accompanying Proxy Statement describes each of these items of business in detail. Only stockholders of record at the close of business on July 28, 2025 are entitled to receive notice of, attend and vote at the Annual Meeting or any continuation, postponement or adjournment thereof.

All stockholders as of the record date, or who hold a valid proxy, are cordially invited to attend the Annual Meeting via the Internet at [www.virtualshareholdermeeting.com/LTRN2025](http://www.virtualshareholdermeeting.com/LTRN2025). To ensure your representation at the Annual Meeting, you are urged to vote your shares of common stock via the Internet or by promptly marking, dating, signing, and returning the proxy card in the envelope provided. Voting instructions are provided on the proxy card and included in the accompanying Proxy Statement. Any stockholder attending the Annual Meeting may vote at the meeting even if he or she previously submitted a proxy. If your shares of common stock are held by a bank, broker or other agent, please follow the instructions from your bank, broker or other agent to have your shares voted.

*/s/ Donald J. Keyser*

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Donald J. Keyser,  
*Chairman of the Board of Directors*

Dallas, Texas  
August 8, 2025

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**LANTERN PHARMA INC.**  
**1920 McKinney Avenue, 7<sup>th</sup> Floor**  
**Dallas, Texas 75201**

**PROXY STATEMENT  
FOR ANNUAL MEETING OF STOCKHOLDERS  
TO BE HELD ON SEPTEMBER 19, 2025**

**INFORMATION ABOUT THE ANNUAL MEETING**

**General**

Your proxy is solicited on behalf of the Board of Directors (which we refer to as our “Board”) of Lantern Pharma Inc., a Delaware corporation (which we refer to as “Lantern,” “we,” “us,” “our,” or the “Company”), for use at our 2025 Annual Meeting of Stockholders (which we refer to as the “Annual Meeting”). This year’s meeting is a virtual stockholder meeting conducted exclusively via a live audio webcast at [www.virtualshareholdermeeting.com/LTRN2025](http://www.virtualshareholdermeeting.com/LTRN2025). The Annual Meeting will be held on Friday, September 19, 2025, at 11:00 a.m. Eastern time, or at any continuation, postponement or adjournment thereof, for the purposes discussed in this Proxy Statement. Proxies are solicited to give all stockholders of record an opportunity to vote on matters properly presented at the Annual Meeting.

**Important Notice Regarding the Availability of Proxy Materials for the Stockholders’  
Meeting to Be Held Via the Internet at [www.virtualshareholdermeeting.com/LTRN2025](http://www.virtualshareholdermeeting.com/LTRN2025)**

**on Friday, September 19, 2025 at 11:00 a.m. Eastern time**

The Annual Report, Notice of Meeting, Proxy Statement and Proxy Card  
are available at [www.proxyvote.com](http://www.proxyvote.com)

We intend to commence mailing this Proxy Statement, the proxy card, the Notice of Annual Meeting, and Annual Report on or about August 11, 2025 to all stockholders entitled to vote at the Annual Meeting. If you would like a hard copy of the proxy materials for this Annual Meeting, or any future stockholder meetings, mailed or emailed to you, please contact us at the above address or at our webpage <http://ir.lanternpharma.com/>, or telephone us at 972-277-1136 or email us at [ir@lanternpharma.com](mailto:ir@lanternpharma.com).

**How to Attend**

You are entitled to attend and participate in the Annual Meeting if you were a stockholder as of the close of business on July 28, 2025, the record date, or hold a valid proxy for the meeting. To attend the Annual Meeting, you must access the meeting website at [www.virtualshareholdermeeting.com/LTRN2025](http://www.virtualshareholdermeeting.com/LTRN2025) and enter the control number set forth on your proxy card or, if you hold your shares in street name, the control number set forth in the voting instruction form delivered to you by your broker. In order to participate in the virtual meeting, including to vote, ask questions and to view the list of registered stockholders as of the record date during the meeting, you must access the meeting website at [www.virtualshareholdermeeting.com/LTRN2025](http://www.virtualshareholdermeeting.com/LTRN2025) and enter the control number that may be found on your proxy card. The meeting webcast will begin promptly at 11:00 a.m. Eastern Time. Online check-in will begin approximately 15 minutes before then and we encourage you to allow ample time for check-in procedures.

**Who Can Vote, Outstanding Shares**

Record holders of our common stock as of the close of business on July 28, 2025, the record date for the Annual Meeting, are entitled to vote at the Annual Meeting on all matters to be voted upon. As of the record date, there were 10,784,725 shares of our common stock outstanding, each entitled to one vote.

**Voting of Shares**

You may vote by attending the Annual Meeting and voting at the meeting or you may vote prior to the Annual Meeting through the Internet or by submitting a proxy. The method of voting by proxy differs for shares held as a record holder and shares held in “street name.” If you hold your shares of common stock as a record holder, you may vote your shares over the Internet or by completing, dating and signing the proxy card and promptly returning the proxy card via mail. If you hold your shares of common stock in street name, which means that your shares are held of record by a broker, bank or other nominee, you will receive a notice from your broker, bank or other nominee that includes instructions on how to vote your shares.

You may vote your shares as follows:

- To vote in person, attend the Annual Meeting and follow the procedures set forth in “Voting at the Meeting”, below.
- To vote through the Internet prior to the Annual Meeting, go to [www.proxyvote.com](http://www.proxyvote.com) and complete an electronic proxy card. You will be asked to provide the control number from the proxy card or, if you hold your shares in street name, the voting instruction form delivered to you by your broker. Your Internet vote must be received by 11:59 p.m., Eastern Time on September 18, 2025 to be counted.
- To vote prior to the Annual Meeting using the proxy card delivered to you, simply complete, sign, and date the proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us before the Annual Meeting, we will vote your shares as you direct.
- To vote prior to the Annual Meeting using any touch-tone telephone, dial 1-800-690-6903. Have your proxy card or voting instruction form in hand and follow the instructions.

### **YOUR VOTE IS VERY IMPORTANT.**

You should submit your proxy even if you plan to attend the Annual Meeting. If you properly give your proxy and submit it to us in time to vote, one of the individuals named as your proxy will vote your shares as you have directed. Any stockholder attending the Annual Meeting may vote in person even if he or she previously submitted a proxy.

All shares entitled to vote and represented by properly submitted proxies (including those submitted electronically and in writing) received before the polls are closed at the Annual Meeting, and not revoked or superseded, will be voted at the Annual Meeting in accordance with the instructions indicated on those proxies. If no direction is indicated on a proxy, your shares will be voted as follows:

- **FOR** each of the six (6) nominees for director named in the Proxy Statement;
- **FOR** approval of the one-time repricing of certain stock options granted under the Equity Incentive Plan;
- **FOR** the ratification of the appointment of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025; and
- **FOR** an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the foregoing proposals.

With respect to any other matter that properly comes before the Annual Meeting or any continuation, postponement or adjournment thereof, the proxy-holders will vote as recommended by our Board or, if no recommendation is given, in their own discretion.

### **Revocation of Proxy**

If you are a stockholder of record, you may revoke your proxy at any time before your proxy is voted at the Annual Meeting by taking any of the following actions:

- delivering to our corporate secretary a signed written notice of revocation, bearing a date later than the date of the proxy, stating that the proxy is revoked;
- signing and delivering a new proxy card, relating to the same shares and bearing a later date than the original proxy card;
- submitting another proxy over the Internet (your latest Internet voting instructions are followed); or
- attending the Annual Meeting and voting in person, although attendance at the Annual Meeting will not, by itself, revoke a proxy.

Written notices of revocation and other communications with respect to the revocation of Company proxies should be addressed to:

Lantern Pharma Inc.  
1920 McKinney Avenue, 7<sup>th</sup> Floor  
Dallas, Texas 75201  
Attention: Corporate Secretary

If your shares are held in “street name,” you may change your vote by submitting new voting instructions to your broker, bank or other nominee. You must contact your broker, bank or other nominee to find out how to do so. See below regarding how to vote in person if your shares are held in street name.

### **Voting at the Meeting**

If you are a stockholder of record or hold your shares of common stock in street name, you can vote at the virtual Annual Meeting by accessing the meeting website at [www.virtualshareholdermeeting.com/LTRN2025](http://www.virtualshareholdermeeting.com/LTRN2025), entering the control number found on your proxy card or, if you hold your shares of common stock in street name, entering the control number on the voting instruction form delivered to you by your broker and following the instructions on the website for voting at the Annual Meeting.

Additional information regarding the rules and procedures for participating in the Annual Meeting will be set forth in our meeting rules of conduct, which stockholders can view during the meeting at the meeting website. We will also post a recording of the meeting on our investor relations website, which will be available for replay following the meeting for 60 days.

### **Quorum and Votes Required**

The inspector of election appointed for the Annual Meeting will tabulate votes cast by proxy or in person at the Annual Meeting. The inspector of election will also determine whether a quorum is present. In order to constitute a quorum for the conduct of business at the Annual Meeting, not less than one-third (33.33%) of the voting power of all of the shares of the stock entitled to vote at the Annual Meeting must be present in person or represented by proxy at the Annual Meeting. Shares that abstain from voting on any proposal, or that are represented by broker non-votes (as discussed below), will be treated as shares that are present and entitled to vote at the Annual Meeting for purposes of determining whether a quorum is present. If there is no quorum, the Chair of the Annual Meeting or the holders of a majority of the shares present at the Annual Meeting in person or represented by proxy and entitled to vote may adjourn the Annual Meeting to another date.

A broker non-vote occurs when a broker, bank or other agent holding shares for a beneficial owner has not received instructions from the beneficial owner and does not have discretionary authority to vote the shares for certain non-routine matters. Shares represented by proxies that reflect a broker non-vote will be counted for purposes of determining the presence of a quorum. We believe that the election of directors (Proposal 1) will be considered a non-routine matter and broker non-votes, if any, will have no effect on the result of the vote. We believe that the one-time repricing of certain stock options granted under the Equity Incentive Plan (Proposal 2) will be considered a non-routine matter and broker non-votes, if any, will not be counted as present and entitled to vote at the Annual Meeting. We believe that the ratification of the appointment of EisnerAmper LLP as our independent registered public accounting firm (Proposal 3) will be considered a routine matter on which a broker, bank or other agent will have discretionary authority to vote, and on this basis we do not expect any broker non-votes in connection with this proposal.

**Proposal No. 1: Election of Directors.** A plurality of the votes cast by the holders of shares entitled to vote in the election of directors at the Annual Meeting is required for the election of directors. Accordingly, the six (6) director nominees receiving the highest number of votes will be elected. Abstentions and broker non-votes will not have any effect on the outcome of the election of directors.

**Proposal No. 2: One-time Repricing of Certain Stock Options Granted Under the Equity Incentive Plan.** The affirmative vote of the holders of a majority of the shares of our common stock present in person or represented by proxy and entitled to vote at the Annual Meeting is required for the approval of the one-time repricing of certain stock options granted under the Equity Incentive Plan (Proposal 2). An abstention on Proposal 2 will have the same effect as a vote against Proposal 2. A broker non-vote will not be counted as present and entitled to vote at the Annual Meeting and, therefore, will not have any effect on Proposal 2.

**Proposal No. 3: Ratification of Independent Registered Public Accounting Firm.** The affirmative vote of the holders of a majority of the votes present and entitled to vote at the Annual Meeting is required for the ratification of the appointment of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025. We believe that brokers will have discretionary authority to vote on the ratification of our independent registered public accounting firm and, therefore, we do not expect there to be broker non-votes resulting from the vote on Proposal No. 3. Abstentions in connection with Proposal No. 3 will have the effect of a vote against this proposal.

**Proposal No. 4: Approval to Adjourn the Annual Meeting.** The affirmative vote of the holders of a majority of the votes present and entitled to vote at the Annual Meeting is required for the approval of an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposals 1, 2 or 3. We believe that brokers will have discretionary authority to vote on an adjournment of the Annual Meeting, if necessary, to solicit additional proxies and, therefore, we do not expect there to be broker non-votes resulting from the vote on Proposal No. 4. Abstentions in connection with Proposal No. 4 will have the effect of a vote against this proposal.

We will also consider any other business that properly comes before the Annual Meeting, or any adjournment or postponement thereof. As of the record date, we are not aware of any other matters to be submitted for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting, the persons designated as proxies will vote the shares as recommended by our Board or, if no recommendation is given, in their own discretion.

### **Solicitation of Proxies**

Our Board is soliciting proxies for the Annual Meeting from our stockholders. We will bear the entire cost of soliciting proxies from our stockholders. In addition to the solicitation of proxies by delivery of this Proxy Statement by mail, we will request that brokers, banks and other nominees that hold shares of our common stock, which are beneficially owned by our stockholders, forward proxy materials to those beneficial owners and secure those beneficial owners' voting instructions. We will reimburse those record holders for their reasonable expenses. We do not intend to hire a proxy solicitor to assist in the solicitation of proxies. We may use several of our regular employees, who will not be specially compensated, to solicit proxies from our stockholders, either personally or by Internet, facsimile or special delivery letter.

### **Stockholder List**

A list of stockholders eligible to vote at the Annual Meeting will be available for inspection, for any purpose germane to the Annual Meeting, during the Annual Meeting at the meeting website and at the principal executive office of the Company during regular business hours for a period of no less than ten (10) days prior to the Annual Meeting.

### **Forward-Looking Statements**

This Proxy Statement contains "forward-looking statements" (as defined in the Private Securities Litigation Reform Act of 1995). These statements are based on our current expectations and involve risks and uncertainties, which may cause results to differ materially from those set forth in the statements. The forward-looking statements may include statements regarding actions to be taken by us. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise. Forward-looking statements should be evaluated together with the many uncertainties that affect our business, particularly those mentioned in the risk factors in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2024, filed with the Securities and Exchange Commission on March 27, 2025 (the "2024 Annual Report") and in our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K.

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

**Board Nominees**

Our Board currently consists of six (6) members, five (5) of whom are independent under the listing standards for independence of the NASDAQ and Rule 10A-3 under the Securities Exchange Act of 1934, as amended (which we refer to as the “Exchange Act”). Based upon the recommendation of the Nominating and Corporate Governance Committee of our Board, our Board determined to nominate the six (6) current members of the Board for election at the Annual Meeting.

Our Board and the Nominating and Corporate Governance Committee believe the following director nominees collectively have the experience, qualifications, attributes and skills to effectively oversee the management of the Company, including a high degree of personal and professional integrity, an ability to exercise sound business judgment on a broad range of issues, sufficient experience and background to have an appreciation of the issues facing the Company, a willingness to devote the necessary time to Board duties, a commitment to representing the best interests of the Company and our stockholders and a dedication to enhancing stockholder value.

Each director elected at the Annual Meeting will serve a one (1) year term until the Company’s next annual meeting and until his or her successor is duly elected and qualified or until his or her earlier death, resignation or removal. Unless otherwise instructed, the proxy-holders will vote the proxies received by them for the six (6) nominees named below. If any of the nominees is unable or declines to serve as a director at the time of the Annual Meeting, the proxies will be voted for any nominee designated by the present Board to fill the vacancy. It is not presently expected that any of the nominees named below will be unable or will decline to serve as a director.

Set forth below are the names, ages and positions of our director nominees as of the date of this Proxy Statement:

<b>Name</b>	<b>Age</b>	<b>Position</b>
Donald Jeff Keyser <sup>(a),(b)</sup>	72	Chairman of the Board
Panna Sharma	54	Chief Executive Officer, President and Director
Vijay Chandru <sup>(a),(c)</sup>	72	Director
Maria Maccicchini <sup>(a),(b)</sup>	74	Director
Lee T. Schalop	61	Director
David S. Silberstein <sup>(c)</sup>	74	Director

<sup>(a)</sup> Member of the Audit Committee of our Board.

<sup>(b)</sup> Member of the Compensation Committee of our Board.

<sup>(c)</sup> Member of the Nominating and Corporate Governance Committee of our Board.

**Board Recommendation**

**OUR BOARD RECOMMENDS A VOTE “FOR” EACH OF THE SIX (6) NOMINEES FOR DIRECTOR NAMED  
IN THIS PROXY STATEMENT.**

Vacancies on our Board, including any vacancy created by an increase in the size of our Board, may be filled by a majority of the directors remaining in office (even though less than a quorum of our Board) or a sole remaining director. A director elected by our Board to fill a vacancy will serve until the next annual meeting of stockholders and until such director’s successor is elected and qualified, or until such director’s earlier retirement, resignation, disqualification, removal or death.

If any nominee should become unavailable for election prior to the Annual Meeting, an event that currently is not anticipated by our Board, the proxies will be voted in favor of the election of a substitute nominee or nominees proposed by our Board. Each nominee has agreed to serve if elected and our Board has no reason to believe that any nominee will be unable to serve.

## Information about Director Nominees

Set forth below is biographical information for each nominee and a summary of the specific qualifications, attributes, skills and experiences which led our Board to conclude that each nominee should serve on our Board at this time. There are no family relationships among any of the directors, director nominees or executive officers of the Company.

**Donald Jeff Keyser** has served as a director since January 2018 and Chairman since November 2019. Since 2017, Dr. Keyser has served in leadership positions with Renibus Therapeutics, a company developing novel therapies for the diagnosis, treatment and prevention of kidney disease. Dr. Keyser founded Renibus and currently serves as director, president and chief executive officer. Dr. Keyser also served as chief operating officer of Renibus from 2017 until becoming chief executive officer in March 2024. Dr. Keyser also founded ZS Pharma and served since 2008 as a director and chief operating officer of that company until December 2015 when it was acquired by Astra Zeneca for \$2.7 Billion. Dr. Keyser was the inventor of the Mucinex product line for Adams Respiratory Therapeutics. Dr. Keyser developed and executed the R&D and Regulatory strategy for Adams Respiratory Therapeutics as Vice President of Development and Regulatory Affairs during his period there from 1998 to 2004. Adams Respiratory Therapeutics was acquired by Reckitt Benckiser for \$2.3 Billion. He was previously employed as Chief Compliance Officer & Vice President Regulatory Affairs, Encysive Pharmaceuticals, Vice President Technical & Regulatory Affairs, Medeva Americas, Sr. Director Regulatory Affairs, Marion Merrell Dow and Regulatory Principal, Abbott Laboratories. Dr. Keyser received his Pharmacy degree from Creighton University, a Juris Doctorate from Creighton University, a MPA from the University of Missouri-Kansas City and a PhD in Economics from The University of Texas at Dallas. Based on the above qualifications, the Company believes Dr. Keyser is qualified to be on the Board.

**Panna Sharma** has served as our Chief Executive Officer and President since July 2018 and a director since August 2018. As Chief Executive Officer, Mr. Sharma oversees our use of AI and genomics in developing our therapy product pipeline to innovate the rescue, revitalization and development of precision therapeutics in oncology. From May 2010 to February 2018, Mr. Sharma served as President, Chief Executive Officer and director of Cancer Genetics, a Nasdaq company and provider of DNA-based cancer diagnostics and services to medical institutions throughout the world. In 2001, Mr. Sharma founded TSG Partners, a specialty advisory group combining corporate strategy and corporate finance to create stockholder value for companies and investors in the life sciences, biotechnology and environmental sciences sectors. Prior to TSG, Mr. Sharma served in the roles of Senior Vice President of E-Business Solutions and Chief Strategy Officer at iXL Inc. (later merged with Scient). For the six years prior to his being at iXL Inc., Mr. Sharma helped successfully found, manage and sell or take public two other consulting and professional services firms. From 1996 to 1998, Mr. Sharma was a partner at Interactive Solutions, Inc. Prior to that, Mr. Sharma served as a consultant to Putnam Investment Management, LLC and Bank of America Corporation. Mr. Sharma currently serves as a Board member of Continental Lithium, Inc. Mr. Sharma holds a Bachelor of Science in the Philosophy of Science, Neural Networks and Artificial Intelligence from Boston University. Based on the above qualifications, the Company believes Mr. Sharma is qualified to be on the Board.

**Vijay Chandru** has served as a director since October 2019. Currently, Dr. Chandru is a co-founder of OPFORD Foundation, a non-profit in India with an open platform for orphan diseases and with a mission to support development of affordable and accessible therapeutics for orphan diseases of which many are rare genetic disorders. He was also a co-founder of Strand Life Sciences, India's leading precision medicine solutions company, an offshoot of the Indian Institute of Science, which now has over 20 diagnostic laboratories and over 800 employees spread across India. He served as Executive Chairman of Strand Life Sciences from 2000 to 2018, and currently serves as a Director and Chair of the Science Advisory Board at Strand Life Sciences. A technology pioneer of the World Economic Forum since 2006, he was elected President (2009-2012) of the Association of Biotech Led Enterprises (ABLE), the apex trade body that represents the Indian biotech industry. Dr. Chandru co-founded two startups in the last five years – Yantri Labs Inc. (an algorithmic trading technology company), and CrisprBits Private Limited, a CRISPR technology mediated company in diagnostics and gene-editing. Dr. Chandru serves as a Director of Yantri Labs and as the acting Chief Scientific Officer of CrisprBits. Dr. Chandru is an academic entrepreneur whose academic career has spanned almost four decades. After his doctoral work at MIT he was a tenured professor at Purdue University for a decade in the 1980s and at the Indian Institute of Science in Bangalore since then. A fellow of both the academy of science and engineering in India, he was elected to fellowship of the American Association for the Advancement of Science in 2024. Based on the above qualifications, the Company believes Dr. Chandru is qualified to be on the Board.

**Maria L. Maccicchini** has served as a director since June 2022. Dr. Maccicchini founded Annovis Bio, Inc., a New York Stock Exchange listed, clinical stage, drug platform company addressing neurodegeneration, such as Alzheimer's disease and Parkinson's disease. She has served as President and CEO and as a director of Annovis since May 2008. Dr. Maccicchini has over 30 years of experience in neuroscience and the workings of the brain. She was partner and director of two angel groups, Robin Hood Ventures, from 2002 to 2009, and MidAtlantic Angel Group, from 2005 to 2009. In 1992, she founded and became chief executive officer of Symphony Pharmaceuticals/Annovis, a biotech company, which was sold in 2001 to Transgenomic. From 1987 to 1991 she was General Manager of Bachem Bioscience, the US subsidiary of Bachem AG, Switzerland and Head of Molecular Biology at Mallinckrodt. Dr. Maccicchini conducted post-doctoral research at Caltech and the Roche Institute of Immunology. She earned a Ph.D. in biochemistry from the Biocenter of Basel with a two-year visiting fellowship at The Rockefeller University. Dr. Maccicchini serves on several boards of biotechnology companies, organizations that promote entrepreneurship, international trade, women and charitable organizations. She has been a lecturer at Wharton Business School since 2016. Based on the above qualifications, the Company believes Dr. Maccicchini is qualified to be on the Board.

**Lee T. Schalop, MD** has served as a director since July 2025. In 2009, Dr. Schalop was a co-founder of Oncoceutics, Inc., a clinical-stage drug discovery and development company, and served in various executive roles at Oncoceutics from 2009 to 2021, including Chief Business Officer from 2009 to 2016, Chief Operating Officer from 2016 to 2020 and Chief Executive Officer from 2020 to January 2021, at which time Oncoceutics was sold to Chimerix Inc. (NASDAQ: CMRX) for \$450 million. Prior to co-founding Oncoceutics, Dr. Schalop attended the Albert Einstein College of Medicine, graduating with a doctor of medicine degree in 2008. Before attending medical school, Dr. Schalop spent more than 19 years in the financial industry at several major Wall Street firms, including Morgan Stanley, J.P. Morgan, Credit Suisse and Banc of America Securities, including serving as an investment banker from 1985 to 1993 and a research analyst from 1993 to 2004. Dr. Schalop serves on the Supervisory Board of TME Pharma N.V. (Euronext Growth Paris: ALTME), and he served as a Board Observer at Chimerix Inc. until its sale to Jazz Pharmaceuticals in April 2025. He also sits on the advisory board of the Vagelos Program in Life Sciences and Management at the University of Pennsylvania. He is a summa cum laude graduate of the University of Pennsylvania where he earned dual degrees from the University's Wharton School and College of Arts and Sciences. Based on the above qualifications, the Company believes Dr. Schalop is qualified to be on the Board.

**David S. Silberstein** has served as a director since June 2018. Dr. Silberstein has served as chief operating officer/VP R&D of BioMimetix JV, LLC since 2013. Dr. Silberstein has served as a director of Biological Mimetics, Inc. since 2016. Dr. Silberstein received his PhD in Immunology at Columbia University and Postdoctoral training at Harvard Medical School/Brigham & Women's Hospital. Dr. Silberstein continued for seven years as Assistant Professor at Harvard, leading a research team studying the biochemistry of inflammation. This was followed by 20 years at AstraZeneca Pharmaceuticals where Dr. Silberstein had leadership roles in genomics, translational science, company-wide portfolio management, and science support for two products through launch to aggregate sales of greater than \$30 billion. Since 2013, Dr. Silberstein has worked independently with a number of early stage biotech companies and as a consultant to investment firms. Over this period he has served in leadership roles for NCI oncology trials, including Principal Investigator of a trial in patients with multiple brain metastases. Based on the above qualifications, the Company believes Dr. Silberstein is qualified to be on the Board.

## CORPORATE GOVERNANCE

### Board Composition

Our Board may establish the authorized number of directors from time to time by resolution. Our Board currently consists of six (6) authorized members. In July 2025, our Board increased the size of the Board to six members and appointed Dr. Schalop to fill the vacancy. During the year ended December 31, 2024, our Board met five times and acted five times by unanimous written consent. Our Board does not have a policy regarding Board members' attendance at meetings of our stockholders, however four members of our Board attended our 2024 annual meeting of stockholders. During the year ended December 31, 2024, all directors attended at least 75% of all meetings of the Board and Board committees on which they served.

Generally, under the listing requirements and rules of the Nasdaq Stock Market, independent directors must comprise a majority of a listed company's board of directors. Our Board has undertaken a review of its composition, the composition of its committees and the independence of each director. Our Board has determined that, other than Mr. Sharma, due to his service as an executive officer of our Company, none of our director nominees has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each is "independent" as that term is defined under the applicable rules and regulations of the SEC and the listing requirements and rules of the Nasdaq Stock Market. In making these determinations, our Board considered the current and prior relationships that each nonemployee director nominee has with our Company and all other facts and circumstances our Board deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each nonemployee director nominee. Accordingly, a majority of our directors are independent, as required under applicable Nasdaq Stock Market rules, as of the date of this Proxy Statement.

### Committees of the Board of Directors

Our Board has established an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. Our Board may establish other committees to facilitate the management of our business. The composition and functions of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our Board.

Each of our committees operates under a written charter, copies of which are available at our investor relations website located at [ir.lanternpharma.com/governance/governance-documents](http://ir.lanternpharma.com/governance/governance-documents).

### Audit Committee

Our Audit Committee consists of Donald Jeff Keyser, Vijay Chandru and Maria Maccacchini as of the date of this proxy statement, with Dr. Keyser serving as Chair. The composition of our Audit Committee meets the requirements for independence under current Nasdaq Stock Market listing standards and SEC rules and regulations. Each member of our Audit Committee meets the financial literacy requirements of the Nasdaq Stock Market listing standards and is also a nonemployee director, as defined pursuant to Rule 16b-3 promulgated under the Exchange Act. Dr. Keyser is an audit committee financial expert within the meaning of Item 407(d) of Regulation S-K under the Securities Act of 1933, as amended, or the Securities Act. Our Audit Committee, among other things:

- selects a qualified firm to serve as the independent registered public accounting firm to audit our financial statements;
- discusses the scope and results of the audit with the independent registered public accounting firm;
- reviews, with management and the independent registered public accounting firm, our interim and year-end operating results;
- develops procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviews our policies on risk assessment and risk management;
- reviews related-party transactions; and
- approves (or, as permitted, pre-approves) all audit and all permissible nonaudit services, other than de minimis nonaudit services, to be performed by the independent registered public accounting firm.

Our Audit Committee operates under a written charter that satisfies the applicable rules of the SEC and the listing standards of the Nasdaq Stock Market. During the year ended December 31, 2024, our Audit Committee met six times.

## Compensation Committee

Our Compensation Committee consists of Maria Maccicchini and Donald Jeff Keyser as of the date of this proxy statement, with Dr. Maccicchini serving as Chair. The composition of our Compensation Committee meets the requirements for independence under the Nasdaq Stock Market listing standards and SEC rules and regulations. Each member of the Compensation Committee is also a nonemployee director, as defined pursuant to Rule 16b-3 promulgated under the Exchange Act. The purpose of our Compensation Committee is to discharge the responsibilities of our Board relating to compensation of our executive officers. Our Compensation Committee, among other things:

- reviews, approves and determines the compensation of our executive officers;
- administers our stock and equity incentive plans;
- makes recommendations to our Board regarding director compensation and the establishment and terms of incentive compensation and equity plans; and
- establishes and reviews general policies relating to compensation and benefits of our employees.

Our chief executive officer may, from time to time, provide input and recommendations to our Compensation Committee concerning the compensation of our other executive officers. Our chief executive officer may also, from time to time, attend Compensation Committee meetings, but he is not present during the Committee's deliberations regarding his own compensation. Our Compensation Committee operates under a written charter that satisfies the applicable rules of the SEC and the listing standards of the Nasdaq Stock Market. In 2024, the Compensation Committee engaged the firm of Anderson Pay Advisors to provide compensation consulting advice with respect to compensation of executive officers and directors of the Company. During the year ended December 31, 2024, our Compensation Committee met three times.

## Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee consists of Vijay Chandru and David Silberstein as of the date of this proxy statement, with Dr. Chandru acting as Chair. The composition of our Nominating and Corporate Governance Committee meets the requirements for independence under Nasdaq Stock Market listing standards and SEC rules and regulations and each member of our Nominating and Corporate Governance Committee is also a nonemployee director, as defined pursuant to Rule 16b-3 promulgated under the Exchange Act. Our Nominating and Corporate Governance Committee, among other things:

- identifies, evaluates and makes recommendations to our Board regarding nominees for election to our Board and its committees;
- evaluates the performance of our Board and of individual directors;
- considers and makes recommendations to our Board regarding the composition of our Board and its committees;
- reviews developments in corporate governance practices;
- evaluates the adequacy of our corporate governance practices and reporting; and
- develops and makes recommendations to our Board regarding corporate governance guidelines and matters.

When evaluating director candidates, our Nominating and Corporate Governance Committee seeks to ensure that our Board has the requisite skills and experience and that its members consist of persons with appropriately complementary and independent backgrounds. The Nominating and Corporate Governance Committee will consider all aspects of a candidate's qualifications in the context of Lantern's needs, including: industry experience, preferably at an executive level; experience in the same business sector as that of the Company; subject matter expertise and operations experience in areas important to the Company's growth and advancement; experience as an officer or director of a public company; independence from management; practical business judgment; personal and professional integrity and ethics; and the ability to commit sufficient time and attention to the activities of the Board, as well as the absence of any potential conflicts with our Company's interests. While we do not have a formal diversity policy, we understand the desirability of having a Board composed of directors with diverse and varied backgrounds, experience and opinions. However, the Nominating and Corporate Governance Committee retains the right to modify these qualifications from time to time. Candidates for director nominees are reviewed in the context of the current composition of the Board, the operating requirements of our Company, and the long-term interests of our stockholders.

Our Nominating and Corporate Governance Committee will consider for directorship candidates nominated by third parties, including stockholders. The Nominating and Corporate Governance Committee's consideration will take into account the comprehensive criteria for Board membership determined by the Committee within the context of the needs of the Company at the time. At this time our Nominating and Corporate Governance Committee does not have a policy with regard to the consideration of director candidates recommended by stockholders. The Nominating and Corporate Governance committee believes that it is in the best position to identify, review, evaluate, and select qualified candidates for Board membership, based on the comprehensive criteria for Board membership determined by the Committee. However, pursuant to the proxy access provisions of our bylaws, a stockholder, or group of up to 10 stockholders, that has owned continuously for at least three years shares of our common stock representing an aggregate of at least 3% of our outstanding shares, may nominate and include in our proxy materials director nominees constituting up to the greater of two or 20% of our Board, provided that the stockholder(s) and nominee(s) satisfy the requirements in the proxy access provisions of our bylaws.

For a third party to suggest a candidate, one should provide our corporate secretary, David Margrave, with the name of the candidate, together with a brief biographical sketch and a document indicating the candidate's willingness to serve if elected.

The Nominating and Corporate Governance Committee operates under a written charter that satisfies the applicable listing requirements and rules of the Nasdaq Stock Market. During the year ended December 31, 2024, our Nominating and Corporate Governance Committee met two times.

### **Board Leadership Structure and Role in Risk Oversight**

Donald Jeff Keyser serves as our chairman of the Board and Panna Sharma serves as our president and chief executive officer. We have neither adopted a formal policy on whether the chairman and chief executive officer positions should be separate or combined nor do we have a lead director. We believe that, given the small size of our Board and establishment of separate Audit, Compensation, and Nominating and Corporate Governance Committees consisting of independent directors, our present Board structure is in the best interest of us and our stockholders. Our Board has an active role in overseeing our areas of risk. While the full Board has overall responsibility for risk oversight, the Board has assigned certain areas of risk primarily to designated committees, which report back to the full Board.

### **Process for Stockholders to Send Communications to our Board of Directors**

Because we have always maintained open channels of communication with our stockholders, we do not have a formal policy that provides a process for stockholders to send communications to our Board. However, if a stockholder would like to send a communication to our Board, please address the letter to the attention of our corporate secretary, David R. Margrave, and it will be distributed to each director.

### **Insider Trading Policy**

We have adopted an Insider Trading Policy governing the purchase, sale, and other dispositions of our securities by our directors, officers, and employees, including those persons serving in similar positions with our subsidiaries. Our Insider Trading Policy is reasonably designed to promote compliance with insider trading laws, rules and regulations, and any listing standards applicable to us and our directors, officers, and employees. A copy of our Insider Trading Policy is filed as an exhibit to our Annual Report.

### **Employee, Officer and Director Hedging**

We have adopted a policy that no director, officer, or designated employees of Lantern may engage in any short term or speculative transactions, involving securities of the Company, unless advance approval is obtained from the Company's compliance officer. These prohibited speculative transactions include short sales, publicly traded options, hedging transactions, margin accounts, and pledged securities.

### **Code of Conduct**

We have adopted a code of conduct for all directors and employees, including the chief executive officer, principal financial officer and principal accounting officer or controller, and/or persons performing similar functions, which is available on our investor relations website located at [ir.lanternpharma.com/governance/governance-documents](http://ir.lanternpharma.com/governance/governance-documents).

## **Limitation of Liability of Directors and Indemnification of Directors and Officers**

The Delaware General Corporation Law (“DGCL”) provides that corporations may include a provision in their certificate of incorporation relieving directors of monetary liability for breach of their fiduciary duty as directors, provided that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director’s duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) for unlawful payment of a dividend or unlawful stock purchase or redemption, or (iv) for any transaction from which the director derived an improper personal benefit. Our certificate of incorporation provides that directors are not liable to us or our stockholders for monetary damages for breach of their fiduciary duty as directors to the fullest extent permitted by Delaware law. In addition to the foregoing, our certificate of incorporation provides that we shall indemnify directors, officers, employees or agents to the fullest extent permitted by law and we have agreed to provide such indemnification to each of our executive officers and directors by way of written indemnification agreements.

The above provisions in our certificate of incorporation and bylaws and in the written indemnification agreements may have the effect of reducing the likelihood of derivative litigation against directors and may discourage or deter stockholders or management from bringing a lawsuit against directors for breach of their fiduciary duty, even though such an action, if successful, might otherwise have benefited us and our stockholders. However, we believe that the foregoing provisions are necessary to attract and retain qualified persons as directors.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

**PROPOSAL NO. 2**  
**APPROVAL OF THE ONE-TIME REPRICING OF CERTAIN STOCK OPTIONS GRANTED UNDER THE**  
**SECOND AMENDED AND RESTATED LANTERN PHARMA INC. 2018 EQUITY INCENTIVE PLAN, AS**  
**AMENDED**

We are seeking stockholder approval of the repricing of certain outstanding stock options granted to our employees, executive officers, and board members under the Second Amended and Restated Lantern Pharma Inc. 2018 Equity Incentive Plan, as amended (the “Equity Incentive Plan”) in order to address employee and board member retention objectives and further align the incentives of employees and Board members with the interests of investors. The stock options for which stockholder approval of the repricing is being requested are outstanding options granted under the Equity Incentive Plan that have an exercise price greater than \$10.00 per share (the “Eligible Options”).

On July 24, 2025 (the “Board Approval Date”), our Board approved, based on the Compensation Committee’s consideration and recommendation, the repricing of the Eligible Options, subject to approval by the Company’s stockholders of this Proposal No. 2 at the Annual Meeting (the “Stockholder Approval Date”). Subject to approval by our stockholders, the exercise price of the Eligible Options shall be reduced to an exercise price of \$5.04 per share (the “Repriced Exercise Price”). All other terms of the Eligible Options shall remain the same, provided that the Eligible Options shall be subject to an additional 12 month vesting requirement as described below. The following is a summary of the repricing set forth in this Proposal No. 2:

- The Repriced Exercise Price was calculated as 125% of our average daily volume weighted average price as reported by Nasdaq Stock Market, measured over the ten trading days ending and including the Board Approval Date.
- All active employees and serving non-employee directors and consultants (the “Service Providers”), are eligible for the repricing of their Eligible Options. The Eligible Options were granted between June 15, 2020, and November 4, 2021, and have exercise prices ranging from \$10.21 to \$15.21 per share.
- The right to exercise Eligible Options at the Repriced Exercise Price will only vest for Service Providers who remain employed or serve on the Board or serve as consultants to the Company as of the Stockholder Approval Date and continuing through the date twelve calendar months after the Stockholder Approval Date (the “Vesting Satisfaction Date”). In addition, the Repriced Exercise Price will only be applicable for Eligible Options exercised on or after the Vesting Satisfaction Date. Any exercises of Eligible Options that occur before the Vesting Satisfaction Date will be based on the original exercise price prior to the Board Approval Date.

We refer to these amendments of Eligible Options as the “Repricing”.

In approving the Repricing, the Board considered the retentive impact of the current exercise prices of the Eligible Options, the alignment of incentives of the Service Providers with the interests of investors, and whether other compensation choices could better address these considerations.

The Board has determined that the option Repricing is in the best interest of the Company and its stockholders and recommends a vote “For” this proposal.

As of July 25, 2025, the closing price of our common stock as reported on the Nasdaq Stock Market was \$4.24 per share.

**Rationale for the Repricing**

Over the past four years, there has been a significant decline in our stock price, which remains at a low level relative to its previous price levels in 2020 and 2021. As a result, some outstanding stock options have exercise prices significantly above the recent trading prices of our common stock. Although we continue to believe that stock options are a key component of our compensation philosophy, the Eligible Options may be perceived by their holders as having little or no incentive and retention effect due to the extent to which the exercise prices exceed the current stock price.

By focusing the Repricing on the most deeply underwater options, applying a premium exercise price relative to market prices of our common stock at the time of the stock option repricing, and requiring that holders of Eligible Options remain with the Company for twelve months after the Stockholder Approval Date to be able to exercise options at the Repriced Exercise Price, the Repricing can:

- Retain key employees and directors by offering them meaningful compensation opportunities based on future Company performance.
- Better align employee incentives with current Company strategy and investor interests.

- Limit accounting and financial reporting expense to the Company compared to other compensation alternatives to the Repricing that could also achieve the above goals. (See “Other Alternatives to the Repricing”)
- Limit further dilution of investors through additional retentive equity grants.

These considerations have led the Board and Compensation Committee to conclude that the Repricing is in the best interests of both the Company and our investors.

### **Other Alternatives to the Repricing**

The Board and Compensation Committee considered several other alternatives before deciding that the Repricing was the best strategy. These alternatives included:

- *Doing Nothing.* By not repricing these underwater option awards, we risk not being able to retain key Service Providers by failing to correct a misaligned and ineffective incentive structure.
- *Grant New and Additional Retentive Equity Awards.* This choice could achieve the retention and incentive alignment goals similarly to the Repricing but would increase the accounting and financial reporting compensation expense to the Company, increase the equity overhang and potentially cause greater dilution to investors’ current equity holdings. The Repricing minimizes these negative effects, although the retention and incentive alignment effects of Repricing could be slightly less than the granting of new and additional retentive equity awards.
- *Conduct a Value-for-Value Exchange of Equity Awards.* Implementing a program to exchange underwater option awards for new equity awards on a value-for-value basis would provide fewer new awards to Service Providers, limiting the retentive value of the new awards. It could also subject the Company to the SEC’s Tender Offer rules, resulting in additional costs and operational complexity for the Company. This choice would increase Company expenses, and risk not having adequate retention effects on the Service Providers.

### **Summary of Material Terms of the Repricing**

Under the Repricing, and subject to stockholder approval of this Proposal No. 2, the Eligible Options will have the terms of their award agreements automatically amended, without any action on the part of the holders of the Eligible Options, such that Service Providers who remain employed or serve on the Board or serve as consultants to the Company as of the Stockholder Approval Date and continuing through the Vesting Satisfaction Date, may exercise Eligible Options at the Repriced Exercise Price on or after the Vesting Satisfaction Date.

If any holder of an Eligible Option ceases to be a Service Provider with the Company before the Vesting Satisfaction Date, his or her Eligible Options will be subject to the original exercise price prior to the Board Approval Date.

#### *Eligible Options:*

Eligible Options are options to purchase shares of our common stock granted under the Equity Incentive Plan with an exercise price per share greater than \$10.00 per share.

#### *Eligible Participants:*

Eligible Participants are Service Providers who are currently employed by us, or are currently in service as a Board member or a consultant to the Company.

#### *Repriced Exercise Price:*

The Repriced Exercise Price of \$5.04 per share was calculated as 125% of our average daily volume weighted average stock price as reported by Nasdaq Stock Market, measured over the ten trading days ending and including the Board Approval Date.

#### *Vesting Satisfaction Date:*

The Vesting Satisfaction Date is the date twelve calendar months after the Stockholder Approval Date. The Repriced Exercise Price is only applicable for Service Providers who remain employed or remain in service as a Board member or a consultant to the Company through the Vesting Satisfaction Date. Any exercises of Eligible Options that occur before the Vesting Satisfaction Date will be based on the original exercise price prior to the Board Approval Date.

### *Effects on Other Terms of Eligible Options:*

Except as described above in this Proposal No. 2, there are no other changes to the vesting schedules or any other terms and conditions of the Eligible Options as a result of the Repricing.

### **Outstanding Eligible Options**

Set forth below are the outstanding options eligible for the Repricing held by our current Named Executive Officers, Board members, all current named executive officers as a group, all current Board members as a group, and all other employees.

Of the 1,235,331 outstanding options as of the date of this proxy statement, 314,633, or approximately 25%, are eligible to be included in the Repricing.

<b>Name and Position</b>	<b>Number of Eligible Options Outstanding</b>	<b>Pre-Repricing Weighted Average Exercise Price &amp; Range</b>	<b>Weighted Average Remaining Term (years)</b>
Panna Sharma, Chief Executive Officer, President and Director.....	76,628	\$15.00 (\$15.00 exercise prices)	4.85
David R. Margrave, Chief Financial Officer and Secretary .....	104,400	\$13.80 (\$10.21-\$15.00)	5.19
Kishor G. Bhatia, Chief Scientific Officer.....	69,600	\$13.80 (\$10.21-\$15.00)	5.19
Donald J. Keyser, Chairman of the Board.....	12,335	\$13.79 (\$10.32-\$15.00)	5.21
David S. Silberstein, Director.....	12,335	\$13.79 (\$10.32-\$15.00)	5.21
Vijay Chandru, Director.....	12,335	\$13.79 (\$10.32-\$15.00)	5.21
Maria L. Maccacchini, Director.....	-	-	-
Lee T. Schalop, Director.....	-	-	-
All current executive officers, as a group ...	250,628	\$14.17 (\$10.21-\$15.00)	5.09
All current directors who are not executive officers, as a group.....	37,005	\$13.79 (\$10.32-\$15.00)	5.21
All employees, including all current officers who are not executive officers, as a group.....	27,000	\$13.04 (\$10.33-\$15.21)	5.72

### **Accounting Treatment of the Repricing**

We have adopted the provisions of Financial Accounting Standards Codification Topic 718, or ASC Topic 718, regarding accounting for share-based payments. Under Topic 718, we will recognize any incremental compensation cost of the Eligible Options subject to the Repricing. The incremental compensation cost will be measured as the excess, if any, of the fair value of the repriced Eligible Options immediately following the Repricing over the fair value of the Eligible Options immediately prior to the Repricing.

### **Certain U.S. Federal Income Tax Consequences**

For purposes of the incentive stock option rules, the repricing of an Eligible Option is treated as a new option granted as of the effective date of the repricing, and certain options previously denominated as incentive stock options may be converted to nonqualified stock options as a result of the repricing. The rules concerning the federal income tax consequences with respect to stock options granted to employees and other service providers are quite technical. Moreover, the applicable statutory provisions are subject to change, as are their interpretations and applications, which may vary in individual circumstances. Therefore, the following is designed to provide a general understanding of the U.S. federal income tax consequences with respect to such grants. In addition, the following discussion does not set forth any gift, estate, social security or state or local tax consequences that may be applicable and is limited to the U.S. federal income tax consequences to individuals who are citizens or residents of the United States, other than those individuals who are taxed on a residence basis in a foreign country.

### *Incentive Stock Options*

No taxable income is reportable when an incentive stock option is granted or exercised, although the exercise may subject the optionee to the alternative minimum tax or may affect the determination of the optionee's alternative minimum tax (unless the shares are sold or otherwise disposed of in the same year). If the optionee exercises the option and then later sells or otherwise disposes of the shares acquired more than two years after the grant date and more than one year after the exercise date (a qualifying disposition), the difference between the sale price and the exercise price will generally be taxed as capital gain or loss. If the optionee exercises the option and then later sells or otherwise disposes of the shares before the end of the two or one year holding periods described above, he or she generally will have ordinary income at the time of the sale equal to the fair market value of the shares on the exercise date (or the sale price, if less) minus the exercise price of the option. For purposes of the alternative minimum tax, the difference between the option exercise price and the fair market value of the shares on the exercise date is treated as an adjustment item in computing the optionee's alternative minimum taxable income in the year of exercise. In addition, special alternative minimum tax rules may apply to certain subsequent disqualifying dispositions of the shares or provide certain basis adjustments or tax credits for alternative minimum tax purposes.

### *Nonqualified Stock Options*

No taxable income is reportable when a nonstatutory stock option with a per share exercise price at least equal to the fair market value of a share of the underlying stock on the date of grant is granted to an optionee. Upon exercise, the optionee will recognize ordinary income in an amount equal to the excess of the fair market value (on the exercise date) of the shares purchased over the exercise price of the exercised shares subject to the option. Any taxable income recognized in connection with an option exercise by an employee is subject to tax withholding by us. Any additional gain or loss recognized upon any later disposition of the shares would be capital gain or loss to the optionee.

### *Tax Effect for the Company*

We generally will be entitled to a tax deduction in connection with the repriced Eligible Options in an amount equal to the ordinary income realized by the holder at the time the holder recognizes such income (for example, the exercise of a nonstatutory stock option). We will generally not be entitled to a tax deduction in the case of an incentive stock option for which there is a qualifying disposition following exercise. Special rules limit the deductibility of compensation paid to our Chief Executive Officer and other "covered employees" within the meaning of Internal Revenue Code, or the Code, Section 162(m). Under Code Section 162(m), the annual compensation paid to any of these specified employees will be deductible only to the extent that it does not exceed \$1,000,000.

### **Board Recommendation**

**OUR BOARD RECOMMENDS A VOTE "FOR" THE APPROVAL OF THE ONE-TIME REPRICING OF CERTAIN STOCK OPTIONS GRANTED UNDER THE EQUITY INCENTIVE PLAN.**

**PROPOSAL NO. 3**  
**RATIFICATION OF APPOINTMENT OF**  
**INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Audit Committee has appointed EisnerAmper LLP (which we refer to as “Eisner”) as our independent registered public accounting firm for the year ending December 31, 2025, and our Board has directed that management submit the appointment of Eisner as our independent registered public accounting firm for ratification by the stockholders at the Annual Meeting. A representative of Eisner is expected to be available at the Annual Meeting and will have an opportunity to make a statement if he or she so desires and will be available to respond to appropriate questions.

Stockholder ratification of the selection of Eisner as our independent registered public accountants is not required by our Bylaws or otherwise. However, our Board is submitting the appointment of Eisner to the stockholders for ratification as a matter of corporate practice. If the stockholders fail to ratify the appointment, the Audit Committee will reconsider whether or not to retain Eisner. Even if the selection is ratified, the Audit Committee, in its discretion, may direct the appointment of a different independent registered public accountant at any time during the year if the Audit Committee determines that such a change would be in the Company’s and our stockholders’ best interests.

**Board Recommendation**

**OUR BOARD RECOMMENDS A VOTE “FOR” THE RATIFICATION OF EISNERAMPER LLP  
AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM  
FOR THE FISCAL YEAR ENDING DECEMBER 31, 2025**

**Fees Incurred for Services by Principal Accountant**

The following table sets forth the aggregate fees billed to us for services rendered to us for the years ended December 31, 2024 and 2023 by our independent registered public accounting firm, EisnerAmper LLP and their affiliates.

	<b>2024</b>	<b>2023</b>
Audit Fees <sup>(A)</sup> .....	\$ 215,000	\$ 168,000
Audit – Related Fees <sup>(B)</sup> .....	144,113	72,450
Tax Fees .....	22,050	18,900
	<u>\$ 381,163</u>	<u>\$ 259,350</u>

<sup>(A)</sup> The audit fees consisted of fees for the audit of our financial statements, the review of the interim financial statements included in our quarterly reports on Form 10-Q, and other professional services provided in connection with the statutory and regulatory filings or engagements and capital market financings.

<sup>(B)</sup> The audit-related fees are for the review of financial statements and other audit-related services relating to Starlight Therapeutics Inc., a wholly owned subsidiary of the Company, for the year ended December 31, 2024, as well as the audit of financial statements of Starlight Therapeutics Inc. for the year ended December 31, 2023.

**Pre-Approval Policies and Procedures**

Our Audit Committee has responsibility for selecting, appointing, evaluating, compensating, retaining and overseeing the work of the independent registered public accounting firm. In recognition of this responsibility, our Audit Committee has established policies and procedures in its charter regarding pre-approval of any audit and non-audit service provided to the Company by our independent registered public accounting firm and the fees and terms thereof.

The Audit Committee considered the compatibility of the provision of other services by the Company’s registered public accountant with the maintenance of their independence. Our Audit Committee pre-approved all of the services provided by our independent registered public accounting firm during 2024 and 2023.

## Audit Committee Report

The Audit Committee issued the following report for inclusion in this Proxy Statement and our 2024 Annual Report:

- The Audit Committee has reviewed and discussed the audited consolidated financial statements for the year ended December 31, 2024 with management of Lantern Pharma Inc. and with Lantern Pharma Inc.'s independent registered public accounting firm, EisnerAmper LLP.
- The Audit Committee has discussed with EisnerAmper LLP those matters required by Statement on Auditing Standards No. 1301, "Communications with Audit Committee," as adopted by the Public Company Accounting Oversight Board ("PCAOB").
- The Audit Committee has received and reviewed the written disclosures and the letter from EisnerAmper LLP required by the PCAOB regarding EisnerAmper LLP's communications with the Audit Committee concerning the accountant's independence and has discussed with EisnerAmper LLP its independence from Lantern Pharma Inc. and its management.

Based on the review and discussions referenced in paragraphs 1 through 3 above, the Audit Committee recommended to our Board that the audited consolidated financial statements of the Company for the year ended December 31, 2024 be included in the Annual Report on Form 10-K for that year for filing with the SEC.

AUDIT COMMITTEE

Donald Jeff Keyser

Vijay Chandru

Maria Maccicchini

**PROPOSAL NO. 4**  
**APPROVE AN ADJOURNMENT OF THE ANNUAL MEETING, IF NECESSARY,**  
**TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR**  
**OF PROPOSALS 1, 2 OR 3**

**Introduction**

As described above, our Board has recommended: the election of six (6) directors to serve for the ensuing year as members of the Board (Proposal 1); approval of the one-time repricing of certain stock options granted under the Equity Incentive Plan (Proposal 2); and ratification of the appointment of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025 (Proposal 3). In furtherance of these recommendations, we are asking our stockholders to approve an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposals 1, 2 or 3.

Proposal 4, to approve an adjournment of the Annual Meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposals 1, 2 or 3, will require the affirmative vote of a majority of the votes present and entitled to vote at the Annual Meeting with respect to such matter.

**Board Recommendation**

**OUR BOARD RECOMMENDS A VOTE “FOR” THE APPROVAL OF AN ADJOURNMENT OF THE ANNUAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF PROPOSALS 1, 2 OR 3.**

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth, as of July 23, 2025, information concerning the beneficial ownership of shares of our common stock held by our directors, director nominees and our named executive officers, our directors, director nominees and executive officers as a group, and each person known by us to be a beneficial owner of more than 5% of our outstanding common stock. Unless otherwise indicated, the business address of each of our directors, director nominees, executive officers and beneficial owners of more than 5% of our outstanding common stock is c/o Lantern Pharma Inc., 1920 McKinney Avenue, 7<sup>th</sup> Floor, Dallas, Texas 75201. Each person has sole voting and investment power with respect to the shares of our common stock, except as otherwise indicated. Beneficial ownership consists of a direct interest in the shares of common stock, except as otherwise indicated and is based on 10,784,725 outstanding shares of common stock as of July 23, 2025.

As used in this section, the term “beneficial ownership” with respect to a security is defined by Rule 13d-3 under the Securities Exchange Act of 1934, as amended, as consisting of sole or shared voting power (including the power to vote or direct the vote) and/or sole or shared investment power (including the power to dispose of or direct the disposition of) with respect to the security through any contract, arrangement, understanding, relationship or otherwise, subject to community property laws where applicable. Beneficial ownership also includes the number of shares that a person has the right to acquire within 60 days, pursuant to the exercise of options or warrants or the conversion of notes, debentures or other indebtedness. Two or more persons might count as beneficial owners of the same share.

There were approximately 9 holders of record of our shares of common stock as of the date of this Proxy Statement. The number of holders does not include individual participants in security positions listings.

Name and Address of Beneficial Owner <sup>(1)</sup>	Shares Beneficially Owned	
	Number	Percent
<i>Officers and Directors</i> .....		
Panna Sharma, Chief Executive Officer, President, and Director <sup>(2)</sup> .....	636,317	5.57%
David R. Margrave, Chief Financial Officer and Secretary <sup>(3)</sup> .....	134,729	1.23
Kishor G. Bhatia, Chief Scientific Officer <sup>(4)</sup> .....	90,012	*
Donald J. Keyser, Chairman of the Board <sup>(5)</sup> .....	92,566	*
David S. Silberstein, Director <sup>(6)</sup> .....	22,278	*
Vijay Chandru, Director <sup>(7)</sup> .....	17,181	*
Maria Maccacchini, Director <sup>(8)</sup> .....	5,134	*
Lee T. Schalop, Director.....	0	*
<i>All Officers and Directors as a group (8 people)</i> .....	998,217	8.50%
<i>5% Stockholders</i> .....		
Bios Equity Entities <sup>(9)</sup> .....	1,075,952	9.98%
Biological Mimetics, Inc. <sup>(10)</sup> .....	844,125	7.83%
ProPhase Labs, Inc. <sup>(11)</sup> .....	631,195	5.85%

\* Represents less than 1% of shares outstanding.

<sup>(1)</sup> All addresses above are 1920 McKinney Avenue, 7th Floor, Dallas, Texas 75201, unless otherwise stated.

<sup>(2)</sup> Consists of 636,317 shares of common stock subject to options exercisable within 60 days. Excludes 29,171 shares of common stock underlying options which are subject to vesting conditions.

<sup>(3)</sup> Consists of 134,729 shares of common stock subject to options exercisable within 60 days. Excludes 21,671 shares of common stock underlying options which are subject to vesting conditions.

<sup>(4)</sup> Consists of 90,012 shares of common stock subject to options exercisable within 60 days. Excludes 14,588 shares of common stock underlying options which are subject to vesting conditions.

<sup>(5)</sup> Consists of (i) 46,807 shares of common stock subject to options exercisable within 60 days, and (ii) 45,759 shares of common stock. Excludes 3,066 shares of common stock underlying options which are subject to vesting conditions.

<sup>(6)</sup> Consists of 22,278 shares subject to options exercisable within 60 days. Excludes 5,154 shares of common stock underlying options which are subject to vesting conditions. Dr. Silberstein is a director of Biological Mimetics, Inc. Dr. Silberstein disclaims any beneficial ownership in the shares of our common stock held by Biological Mimetics, Inc.

<sup>(7)</sup> Consists of 17,181 shares of common stock subject to options exercisable within 60 days. Excludes 5,154 shares of common stock underlying options which are subject to vesting conditions.

<sup>(8)</sup> Consists of 5,134 shares of common stock subject to options exercisable within 60 days. Excludes 3,066 shares of common stock underlying options which are subject to vesting conditions.

- <sup>(9)</sup> Consists of (i) 323,335 shares of common stock held by Bios Fund I, LP (“Bios Fund I”), (ii) 189,117 shares of common stock held by Bios Fund I QP, LP (“Bios Fund I QP”), (iii) 373,178 shares of common stock held by Bios Fund II QP, LP (“Bios Fund II QP”), (iv) 114,272 shares of common stock held by Bios Fund II, LP (“Bios Fund II”), (v) 49,957 shares of common stock held by Bios Fund II NT, LP (“Bios Fund II NT”), and (vi) 26,093 shares of common stock held by BP Directors, LP (“Bios Directors”). Bios Equity Partners, LP (“Bios Equity I”) is the general partner of the following entities: Bios Fund I, Bios Fund I QP, and Bios Directors. Bios Equity Partners II, LP (“Bios Equity II”) is the general partner of Bios Fund II QP, Bios Fund II, and Bios Fund II NT. Cavu Management, LP, an entity managed and controlled by Mr. Leslie W. Kreis, Jr., and Bios Capital Management, LP, an entity managed and controlled by Mr. Aaron Fletcher, are the general partners of Bios Equity I and Bios Equity II. Cavu Advisors LLC, an entity that is managed and controlled by Mr. Kreis, is the general partner of Cavu Management LP. Bios Advisors GP, LLC, an entity that is managed and controlled by Mr. Fletcher, is the general partner of Bios Capital Management, LP. The shares owned by Bios Fund I, Bios Fund I QP, Bios Fund II, Bios Fund II QP, Bios Fund II NT and Bios Directors (“Bios Equity Entities”) are aggregated for purposes of reporting share ownership information. Mr. Kreis and Mr. Fletcher share voting and investment control with respect to shares held by the Bios Equity Entities. Information based on a Schedule 13-D/A filed by the reporting entity on June 13, 2025. The address for the Bios Equity Entities is 1751 River Run, Suite 400, Fort Worth, Texas 76107.
- <sup>(10)</sup> Consists of 844,125 shares of common stock. Address is 124 Byte Drive, Frederick, Maryland 21702.
- <sup>(11)</sup> Consists of 631,195 shares of common stock based on a Schedule 13-G/A filed by the reporting entity on February 14, 2024. Address is 711 Stewart Ave, Suite 200, Garden City, New York 11530.

## EXECUTIVE OFFICERS AND COMPENSATION

### Executive Officers

The following sets forth information regarding the current executive officers of the Company. Biographical information pertaining to Panna Sharma, whom is both a director and an executive officer of the Company, may be found in the section above entitled “Proposal No. 1, Election of Directors-Information about Director Nominees.”

Name	Age	Position
Panna Sharma	54	Chief Executive Officer, President and Director
David R. Margrave	65	Chief Financial Officer and Secretary
Kishor G. Bhatia	71	Chief Scientific Officer

**David R. Margrave** has served as our Chief Financial Officer since November 2019 and as our Secretary since June 2018. From January 2016 until November 2019, Mr. Margrave served as a life science consultant, providing strategic advisory and legal services to growing life science companies. From January 1995 to December 2015, he served as an executive officer at BioNumerik Pharmaceuticals, Inc., a life science company focused on advancing innovative cancer therapies. During his time at BioNumerik Pharmaceuticals, Inc., Mr. Margrave served in various positions including service as President and as Chief Administrative Officer and General Counsel. Mr. Margrave has served as a consultant to BioNumerik Pharmaceuticals, Inc. since January 2016. From April 2015 to December 2016, he also served as Senior Legal Advisor to MedCare Investment Corporation, a private investment firm investing in the medical and healthcare services industries. Prior to joining BioNumerik Pharmaceuticals, Inc., Mr. Margrave was a partner at Andrews & Kurth LLP, a national law firm. Mr. Margrave serves as Chairman and a board member of the Texas Healthcare and Bioscience Institute and is a past Chairman and board member of the State of Texas Product Development & Small Business Incubator Board. He is a past board member of the Texas Technology Transfer Association. Mr. Margrave received a Bachelor of Arts and Science degree in Economics and in Petroleum Engineering from Stanford University, and a J.D. degree from The University of Texas School of Law.

**Kishor G. Bhatia** has served as our Chief Scientific Officer since December 2019, and as our scientific consultant since January 2019. Dr. Bhatia has also served as a scientific consultant to Reprocell, one of our collaborators, since December 2016, and served as a scientific consultant to Cancer Genetics, Inc. from December 2016 until November 2019. Since 2006, he has been employed as an Adjunct Investigator with the National Cancer Institute-Division of Cancer Epidemiology and Genetics. From January 2007 until July 2016, Dr. Bhatia also served as a Director-AIDS Malignancy Program at the National Cancer Institute-Office of HIV and AIDS Malignancy, and from January 2004 through January 2007, he served as a Program Director and the Director of HIV and Cancer at the National Cancer Institute-Division of Cancer Treatment and Diagnosis. Dr. Bhatia received a Bachelor of Science degree in microbiology from the University of Pune and a Ph.D. in biochemistry from the University of Mumbai and is a Fellow of the Royal College of Pathology in the United Kingdom and was a Post-Doctoral Fellow at Johns Hopkins University and a Research Assistant Professor at Georgetown University from 1985 to 1989.

### Summary Compensation Table

The following table sets forth information concerning all forms of compensation earned by our named executive officers during the fiscal years ended December 31, 2024 and 2023 for services provided to the Company and its subsidiaries, which compensation exceeded \$100,000.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Option Awards \$( <sup>(1)</sup> )	Other Compensation \$( <sup>(2)</sup> )	Total (\$)
Panna Sharma, ..... Chief Executive Officer and President	2024	\$ 575,000	\$ 281,750	\$ 223,534	\$ 10,350	\$ 1,090,634
	2023	\$ 525,300	\$ 149,185	\$ -	9,900	\$ 684,385
David R. Margrave, ..... Chief Financial Officer and Secretary	2024	\$ 413,800	\$ 162,288	\$ 166,448	\$ 10,350	\$ 752,886
	2023	\$ 353,290	\$ 79,490	\$ -	9,900	\$ 442,680
Kishor Bhatia, Ph.D., ..... Chief Scientific Officer	2024	\$ 316,000	\$ 101,120	\$ 111,650	\$ 10,350	\$ 539,120
	2023	\$ 235,000	\$ 39,363	\$ -	8,874	\$ 283,237

<sup>(1)</sup> For 2024, the fair value of the options granted were estimated using the Black-Scholes option-pricing model using the following weighted average assumptions: term between 5.26 and 5.88 years, risk free rate of between 4.13% and 4.14%, volatility of between 88.15% and 88.67%, and dividend yield of 0.0%. Based on these assumptions, the grant date fair value is between \$3.15 and \$3.25 per option share.

<sup>(2)</sup> Consists of employer contributions made to the Company’s 401(k) plan for the benefit of the named executive officer.

## Narrative Disclosure to Summary Compensation Table

We have entered into written employment agreements with the named executive officers, as described below. Each of our named executive officers has also executed our standard form of confidential information and invention assignment agreement.

### *Employment Agreement with Panna Sharma*

We entered into an employment agreement with Mr. Sharma on July 23, 2018, that governs the terms of his employment with us as Chief Executive Officer and President. Mr. Sharma's employment agreement, as amended, formally expired on November 15, 2024, however, pursuant to its terms, the employment agreement continues to apply to his continued employment, except for the severance and change in control payment provisions included in the employment agreement, which expired on November 15, 2024. Mr. Sharma's employment agreement provided for an annual base salary of \$525,300 for 2023, and was amended to increase his annual base salary to \$575,000 commencing January 1, 2024. Pursuant to his employment agreement, Mr. Sharma is entitled to an annual cash bonus of up to 50% of his annual base salary, subject to the Company achieving certain operational and strategic milestones mutually agreed upon by the Board and Mr. Sharma and to additional discretionary bonuses to be determined by the Compensation Committee. Mr. Sharma received a cash bonus of \$149,185 for fiscal year 2023 and a cash bonus of \$281,750 for fiscal year 2024.

As incentive compensation, on July 15, 2024, Mr. Sharma was granted stock options to purchase 70,000 shares of our common stock under the terms and conditions of our Equity Incentive Plan. The exercise price for these options is \$4.35 per share. These options are vesting in equal monthly increments over a 24-month period that commenced August 15, 2024.

Mr. Sharma also has the right to participate in the health insurance, vacation and other employee benefit plans and programs generally provided by us to our executive employees in effect from time to time. In 2023 and 2024, the Company made employer contributions of \$9,900 and \$10,350, respectively, to the Company's 401(k) plan for the benefit of Mr. Sharma.

### *Employment Agreement with David Margrave*

We have entered into an employment agreement with Mr. Margrave that governs the terms of his employment with us as our Chief Financial Officer. The term of the employment agreement, as amended, formally expired on November 15, 2024, however, pursuant to its terms, the employment agreement continues to apply to his continued employment, except for the severance and change in control payment provisions included in the employment agreement, which expired on November 15, 2024. Mr. Margrave's employment agreement provided for an annual base salary of \$353,290 for 2023, and was amended to increase his annual base salary to \$413,800 commencing January 1, 2024. Pursuant to his employment agreement, Mr. Margrave is eligible for an annual cash bonus of up to 40% of his annual base salary, as determined by the Compensation Committee and subject to the Company achieving certain operational and strategic milestones to be mutually agreed upon by the CEO and Mr. Margrave. Mr. Margrave received a cash bonus of \$79,490 for fiscal year 2023 and a cash bonus of \$162,288 for fiscal year 2024.

As incentive compensation, on July 15, 2024, Mr. Margrave was granted stock options to purchase 52,000 shares of our common stock under the terms and conditions of our Equity Incentive Plan. The exercise price for these options is \$4.35 per share. These options are vesting in equal monthly increments over a 24-month period that commenced August 15, 2024.

Mr. Margrave also has the right to participate in the health insurance, vacation and other employee benefit plans and programs generally provided by us to our executive employees in effect from time to time. In 2023 and 2024, the Company made employer contributions of \$9,900 and \$10,350, respectively, to the Company's 401(k) plan for the benefit of Mr. Margrave.

### *Employment Agreement with Kishor G. Bhatia, Ph.D.*

We have entered into an employment agreement with Dr. Bhatia that governs the terms of his employment with us as our Chief Scientific Officer. The term of the employment agreement, as amended, will continue until January 15, 2026, unless terminated prior to such time in accordance with its terms. Dr. Bhatia's employment agreement provided for an annual base salary of \$235,000 for 2023, and was amended to increase his annual base salary to \$316,000 commencing January 1, 2024. Pursuant to his employment agreement, Dr. Bhatia is eligible for an annual cash bonus of up to 40% of his annual base salary, as determined by the Compensation Committee and subject to the Company achieving certain operational and strategic milestones to be mutually agreed upon by the CEO and Dr. Bhatia. Dr. Bhatia received a cash bonus of \$39,363 for fiscal year 2023 and a cash bonus of \$101,120 for fiscal year 2024.

As incentive compensation, on July 15, 2024, Dr. Bhatia was granted stock options to purchase 35,000 shares of our common stock under the terms and conditions of our Equity Incentive Plan. The exercise price for these options is \$4.35 per share. These options are vesting in equal monthly increments over a 24-month period that commenced August 15, 2024.

On January 6, 2025, we entered into an amendment to Dr. Bhatia's employment agreement to (i) extend the term of the employment agreement to January 15, 2026, (ii) adjust the minimum hours devoted by Dr. Bhatia per week to the scientific, clinical and therapeutic development operations and affairs of the Company to 24 hours per week, and (iii) proportionately adjust Dr. Bhatia's annual base salary to \$189,600, with such adjustment to take effect with the first pay period in January 2025.

Dr. Bhatia also has the right to participate in the health insurance, vacation and other employee benefit plans and programs generally provided by us to our executive employees in effect from time to time. In 2023 and 2024, the Company made employer contributions of \$8,874 and \$10,350, respectively, to the Company's 401(k) plan for the benefit of Dr. Bhatia.

#### *Potential Payments upon Termination and Change in Control*

Regardless of the manner in which our named executive officers' services terminate, each named executive officer is entitled to receive amounts earned during their terms of service, including unpaid salary. In addition, each named executive officer is eligible to receive certain benefits pursuant to their employment agreement with us, as described below.

We or the named executive officer may terminate their employment agreement upon 30 days' notice to the other party. If Kishor Bhatia is terminated without Cause, then Dr. Bhatia will be entitled to severance pay in an amount equal to the greater of (i) his base salary for the remainder of the term of the employment agreement or (ii) three months of his base salary. In addition, Dr. Bhatia shall be entitled to an amount equal to his annual bonus amount prorated through the date of termination, if such bonus is earned in the calendar year of his termination. The foregoing payments are subject to Dr. Bhatia entering into an agreement releasing all claims against us. Panna Sharma and David Margrave had similar severance rights in their employment agreements, but those rights terminated upon the expiration of their employment agreements.

Pursuant to the Equity Incentive Plan, in the event of a change in control, as defined in the Equity Incentive Plan, all unvested securities owned by a named executive officer shall immediately vest and remain exercisable for the full term of the option. "Cause" is defined in the named executive officers' employment agreements to include, but not limited to, (i) a material breach of the named executive officers' duties as an employee or obligations under their agreement, subject to notice and an opportunity to cure such breach, (ii) a breach or threatened breach of the restrictive covenants and confidentiality provisions under their agreement, (iii) a refusal or failure to follow the reasonable instructions from our Board of Directors, (iv) failure to achieve any mutually agreed and specified material operational or strategic milestones, (v) a breach of any of our rules or policies that is likely to have a material adverse effect on us, subject to notice and an opportunity to cure the breach, (vi) a material failure, other than by reason of disability, to perform satisfactorily to the Board on a regular basis the duties as specified therein, subject to notice and an opportunity to cure the failure, (vii) any intentional or grossly negligent act or omission that causes or threatens to cause a material loss to us or our business, (viii) a commission of, indictment for, or conviction or plea of nolo contendere to a crime of moral turpitude or fraud, embezzlement or similar act of dishonesty or any violation of law or rule that materially impairs or injures us or our reputation, and (ix) any appropriation of any business opportunity belonging to us for the named executive officers' personal benefit or the benefits of any family member or affiliated entity.

#### *Benefit Plans*

We do not have any profit-sharing plan or similar plans for the benefit of our officers, directors or employees. However, we may establish such plans in the future.

#### *Perquisites, Health, Welfare and Retirement Benefits*

All of our current named executive officers are eligible to participate in our employee benefit plans, including health insurance for which we pay portions of the premiums, in each case on the same basis as all of our other employees. We pay portions of the premiums for health insurance for all of our employees, including our named executive officers. Our executive officers have the right to participate in the Company's 401(k) plan, which commenced January 1, 2023. As described in the executive officer narrative disclosure above, the Company made employer contributions to the Company's 401(k) plan in 2023 and 2024 for the benefit of our executive officers. We generally do not provide perquisites or personal benefits to our named executive officers.

## Nonqualified Deferred Compensation

Our named executive officers did not participate in, or earn any benefits under, a nonqualified deferred compensation plan sponsored by us during the fiscal year ended December 31, 2024. Our board of directors may elect to provide our officers and other employees with nonqualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in our best interests.

### *Second Amended and Restated 2018 Equity Incentive Plan, as Amended*

The Equity Incentive Plan was adopted by the Board of Directors and approved by the stockholders on August 29, 2018, and most recently amended on June 13, 2024. The Company has reserved 1,864,680 shares of common stock for issuance under the Equity Incentive Plan, of which options to purchase 1,235,331 shares of our common stock are outstanding as of the date of this Proxy Statement. In addition, as of the date of this Proxy Statement, the Board of Directors has granted four restricted stock awards pursuant to the Equity Incentive Plan that together totaled 100,512 shares of common stock.

### Outstanding Equity Awards at December 31, 2024

The following table sets forth certain information concerning equity awards held by our named executive officers as of December 31, 2024:

Option Awards						
Name	Award Grant Date	Equity Incentive Plan Awards:		Option Exercise Price (\$)	Option Expiration Date	
		Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable			
Panna Sharma,.....	8/29/2018	199,558	—	\$ 1.03	8/28/2028	
Chief Executive Officer, and President	12/17/2018	219,302	—	\$ 1.03	12/16/2028	
	6/15/2020	76,628	—	\$ 15.00	6/14/2030	
	8/8/2022	77,774	22,226 <sup>(1)</sup>	\$ 5.60	8/5/2032	
	7/15/2024	14,580	55,420 <sup>(2)</sup>	4.35	7/14/2034	
David Margrave,.....	6/15/2020	78,300	—	\$ 15.00	6/14/2030	
Chief Financial Officer and Secretary	10/29/2021	26,100	—	\$ 10.21	10/28/2031	
	7/15/2024	10,830	41,170 <sup>(2)</sup>	4.35	7/14/2034	
Kishor Bhatia, Ph.D.....	6/15/2020	52,200	—	\$ 15.00	6/14/2030	
Chief Scientific Officer	10/29/2021	17,400	—	\$ 10.21	10/28/2031	
	7/15/2024	7,290	27,710 <sup>(2)</sup>	4.35	7/14/2034	

<sup>(1)</sup> The options vest and first become exercisable in equal monthly increments over a 36-month period commencing on the one-month anniversary of the date of grant.

<sup>(2)</sup> The options vest and first become exercisable in equal monthly increments over a 24-month period commencing on the one-month anniversary of the date of grant.

## Director Compensation

Below is a summary of compensation accrued or paid to our non-executive directors during the fiscal year ended December 31, 2024.

<b>Name</b>	<b>Fees Earned or Paid in Cash (S)</b>	<b>Option Awards (1) (S)</b>	<b>Total (S)</b>
Donald J. Keyser.....	\$ 56,000	\$ 16,200	\$ 72,200
David S. Silberstein .....	\$ 46,000	\$ 32,150	\$ 78,150
Maria Maccicchini .....	\$ 51,000	\$ 16,200	\$ 67,200
Vijay Chandru .....	\$ 51,000	\$ 32,150	\$ 83,150

- (1) For the option awards, the fair value of the options granted were estimated using the Black-Scholes option-pricing model using the following weighted average assumptions: term between 5.52 and 5.77 years, risk free rate of 4.14%, volatility of 88.32%, and dividend yield of 0.0%. Based on these assumptions, the grant date fair value is between \$3.19 and \$3.24 per option share.

Effective upon the closing of our initial public offering, our Audit Committee Chair began receiving a cash fee of \$10,000 per year and our Compensation Committee Chair and our Nominating and Corporate Governance Committee Chair began receiving a cash fee of \$5,000 per year. In addition, effective November 1, 2021, each of our non-executive directors began receiving a cash fee of \$46,000 per year for their Board service.

## Equity Award Grant Policies

Our Compensation Committee reviews and approves annual equity award grants to our executive officers. In doing so, our Compensation Committee takes into account the presence of any material nonpublic information concerning our Company when approving awards of options, and we do not time the disclosure of material nonpublic information for the purpose of affecting the value of executive compensation. During 2024, our Compensation Committee did not grant any options to a named executive officer of the Company during the period commencing four business days prior to, and ending one business day following, our disclosure of any material nonpublic information by way of a report filed with the SEC or otherwise.

## Compensation Recovery and Clawback Policies

On November 27, 2023, our Board approved the adoption of an Executive Officer Clawback Policy (the “Clawback Policy”), with an effective date of October 2, 2023, in order to comply with the final clawback rules adopted by the Securities and Exchange Commission under Section 10D and Rule 10D-1 of the Securities Exchange Act of 1934, as amended (“Rule 10D-1”), and the listing standards, as set forth in the Nasdaq Listing Rule 5608 (the “Final Clawback Rules”).

The Clawback Policy provides for the mandatory recovery of erroneously awarded incentive-based compensation from current and former executive officers as defined in Rule 10D-1 (“Covered Officers”) of the Company in the event that the Company is required to prepare an accounting restatement, in accordance with the Final Clawback Rules. The recovery of such compensation applies regardless of whether a Covered Officer engaged in misconduct or otherwise caused or contributed to the requirement of an accounting restatement. Under the Clawback Policy, our Board may recoup from the Covered Officers erroneously awarded incentive compensation received within a lookback period of the three completed fiscal years preceding the date on which the Company is required to prepare an accounting restatement.

## CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the compensation arrangements, including employment, termination of employment and change in control arrangements discussed elsewhere in this report, the following is a description of each transaction since January 1, 2023 to which we were a party, in which:

- the amounts involved exceeded or will exceed the lesser of \$120,000 or 1% of the average of our total assets at year-end for the last two completed fiscal years; and
- any of our directors, executive officers or holders of more than 5% of our capital stock, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest.

On November 21, 2023, we entered into separate Securities Purchase Agreements with Bios Fund I QP, LP and Bios Fund I, LP (the “Bios Entities”) pursuant to which we agreed to purchase from the Bios Entities a total of 145,348 shares (the “Shares”) of our common stock, at a purchase price of \$3.44 per share, for a total purchase price of \$499,997.12. The agreements contained customary representations, warranties, and covenants for agreements of such nature. The transactions under the agreements closed prior to November 30, 2023. The Bios Entities are part of a related family of investment partnerships under common control, which collectively beneficially own approximately 9.98% of our issued and outstanding shares of common stock.

In May 2021, we entered into a Collaboration Agreement with Actuate Therapeutics, Inc. (“Actuate”), a clinical stage private biopharmaceutical company focused on the development of compounds for use in the treatment of cancer, and inflammatory diseases leading to fibrosis. Pursuant to the agreement, we and Actuate have collaborated on the utilization of our RADR<sup>®</sup> platform to develop novel biomarker derived signatures for use with one of Actuate’s product candidates. As part of the collaboration, we received 25,000 restricted shares of Actuate stock, subject to meeting certain conditions of the collaboration, as well as the potential to receive additional Actuate stock if results from the collaboration are utilized in future development efforts. In August 2024, Actuate announced the closing of its initial public offering (“IPO”), which also included a reverse stock split. Following the reverse stock split and the IPO, we hold 13,889 shares of Actuate common stock. The Collaboration Agreement expired on March 31, 2024, however we are currently evaluating the possibility of further collaborations with Actuate. Certain of the Bios Equity Entities hold substantial beneficial ownership interests in both the Company and Actuate. Leslie W. Kreis, Jr., a director of the Company until June 8, 2022, is also a director of Actuate.

Our audit committee has the primary responsibility for reviewing and approving or disapproving “related party transactions,” which are transactions between us and related persons in which the aggregate amount involved exceeds or may be expected to exceed the lesser of \$120,000 or 1% of the average of our total assets at year-end for the last two completed fiscal years, and in which a related person has or will have a direct or indirect material interest. Our policy regarding transactions between us and related persons provides that a related person is defined as a director, executive officer, nominee for director or greater than 5% beneficial owner of our common stock, in each case since the beginning of the most recently completed year and any of their immediate family members. Our audit committee charter provides that our audit committee will review and approve or disapprove any related party transactions.

## OTHER MATTERS

### Stockholder Proposals and Director Nominations for 2026 Annual Meeting

For any proposal, other than director nominees, to be considered for inclusion in our Proxy Statement and form of proxy for submission to the stockholders at our 2026 annual meeting pursuant to Rule 14a-8 of the Securities Exchange Act of 1934, it must be submitted in writing and comply with the requirements of Rule 14a-8. Such proposals must be received by the Company at its offices at 1920 McKinney Avenue, 7<sup>th</sup> Floor, Dallas, Texas 75201 on or before April 13, 2026; provided, however, that if our 2026 annual meeting of stockholders is held before August 19, 2026 or after October 19, 2026, then the deadline is a reasonable amount of time prior to the date we begin to print and mail our proxy statement for the 2026 annual meeting of stockholders. In addition, pursuant to the proxy access provisions of our bylaws, a stockholder, or group of up to 10 stockholders, that has owned continuously for at least three years shares of our common stock representing an aggregate of at least 3% of our outstanding shares, may nominate and include in our proxy materials director nominees constituting up to the greater of two or 20% of our Board, provided that the stockholder(s) and nominee(s) satisfy the requirements in the proxy access provisions of our bylaws. Notice of proxy access director nominees must be received not earlier than the close of business on March 13, 2026 and not later than the close of business on April 13, 2026. Our Board will review any proposals from eligible stockholders that it receives by the required date and will make a determination whether any such proposals will be included in our proxy materials. Any proposal received after the required date shall be considered untimely and shall not be made a part of our proxy materials.

A stockholder who wishes to make a proposal, including director nominees other than through proxy access, at the 2026 annual meeting of stockholders without including the proposal in our proxy statement must also notify us no later than June 21, 2026 and not earlier than May 21, 2026; provided, however, if our 2026 annual meeting of stockholders is held prior to August 19, 2026 or after November 18, 2026, then to be timely the proposal should be received by us not earlier than the close of business on the 120<sup>th</sup> day prior to the 2026 annual meeting and not later than the close of business on the later of: (1) the 90<sup>th</sup> day prior to the 2026 annual meeting and (2) the close of business on the tenth day following the first date of our public disclosure of the date of the 2026 annual meeting. If a stockholder fails to give us advance notice in accordance with the foregoing, then, except as otherwise required by law, the chair of the 2026 annual meeting shall have the power and duty to declare that any such nomination shall be disregarded or that any such proposal shall not be transacted. In addition, notice of a nomination must comply with the additional requirements of Rule 14a-19(b) of the Exchange Act.

### Householding of Proxy Materials

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

This year, a number of banks and brokers with account holders who are our stockholders will be householding our proxy materials. A single proxy statement will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your bank or broker that it will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement and annual report, please notify your bank or broker, direct your written request to Lantern Pharma Inc., 1920 McKinney Avenue, 7<sup>th</sup> Floor, Dallas, Texas 75201, Attention: Investor Relations, or contact Investor Relations by telephone at 972-277-1136; or find our materials posted online at <https://ir.lanternpharma.com/>. Stockholders who currently receive multiple copies of the proxy statement at their address and would like to request householding of their communications should contact their bank or broker.

### Other Matters

We will also consider any other business that properly comes before the Annual Meeting, or any adjournment or postponement thereof. As of the record date, we are not aware of any other matters to be submitted for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting, the persons designated as proxies will vote the shares they represent using their best judgment.

## **Incorporation by Reference**

Notwithstanding anything to the contrary set forth in any of our previous filings under the Securities Act, or the Exchange Act, which might incorporate future filings made by us under those statutes, the preceding Audit Committee Report will not be incorporated by reference into any of those prior filings, nor will any such report be incorporated by reference into any future filings made by us under those statutes. In addition, information on our website, other than our Proxy Statement, notice and form of proxy, is not part of the proxy soliciting materials and is not incorporated herein by reference.

By Order of the Board of Directors

*/s/ Donald J. Keyser*

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Donald J. Keyser,  
*Chairman of the Board of Directors*

Dallas, Texas  
August 8, 2025

**A copy of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2024 is available without charge upon written request to: Corporate Secretary, Lantern Pharma Inc., 1920 McKinney Avenue, 7th Floor, Dallas, Texas 75201.**