UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A

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

File	d by the Registrant ⊠
File	d by a party other than the Registrant \Box
Che	ck the appropriate box:
	Preliminary Proxy Statement
	Confidential, for use of the Commission Only (as permitted by Rule 14a-6(e)(2))
\boxtimes	Definitive Proxy Statement
	Definitive Additional Materials
	Soliciting Material Pursuant to §240.14a-12
	Oragenics, Inc. (Name of Registrant as Specified In Its Charter)
	(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)
Pay	ment of Filing Fee (Check the appropriate box):
X	No Fee Required
	Fee paid previously with preliminary materials.
	Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11



1990 Main St. Suite 750 Sarasota, Florida 34236 April 1, 2025

To the Shareholders of Oragenics, Inc.:

You are cordially invited to attend the 2024 Annual Meeting of Shareholders (the "Annual Meeting") of Oragenics, Inc. (the "Company"), which will be held on May 2, 2025, beginning at 10:00 a.m. Eastern Time at the offices of Shumaker, Loop, & Kendrick, Bank of America Plaza, 101 E Kennedy Blvd Suite 2800, Tampa, FL 33602 for the following purposes:

- 1. To elect five Directors of the Company to serve until the next Annual Meeting of Shareholders ("Proposal 1");
- 2. To conduct a non-binding advisory vote on the desired frequency of a non-binding advisory vote on executive compensation (the "Frequency of Voting for Executive Compensation Proposal" or "Proposal");
- 3. To conduct a non-binding advisory vote on executive compensation (the "Executive Compensation Proposal");
- 4 To approve a proposal to authorize the Company's Board of Directors (the "Board"), in its discretion at any time within one year after shareholder approval is obtained, to effect a reverse stock split (the "Reverse Stock Split") of then-outstanding shares of the Company's Common Stock, at a ratio of not less than one-for-five (1:5) and not greater than one-for-fifty (1:50), with the exact ratio to be determined by the Company's Board and included in a public announcement (the "Reverse Stock Split Proposal" or "Proposal 4");
- 5. To approve an amendment to the Company's Articles of Incorporation, as amended, to increase the Company's authorized shares of common stock to 350,000,000 in the event a reverse stock split of our common stock is effectuated prior to approval of the Reverse Stock Split Proposal (the "Increase Authorized Shares Proposal" or "Proposal 5");
- 6. To approve an amendment to the Company's 2021 Equity Incentive Plan, as amended (the "2021 Equity Incentive Plan"), to increase the number of common shares available for issuance under the 2021 Equity Incentive Plan from 3,166,667 shares of Common Stock, as reduced by any Reverse Stock Split, to 3,166,667 shares of Common Stock after the implementation and contingent on the effectuation of the Reverse Stock Split (the "Incentive Plan Increase Proposal") or "Proposal 6"):
- 7. To ratify the selection of Cherry Bekaert LLP as the Company's independent auditors for the year ending December 31, 2025 "Proposal 7");

- 8. To approve the adjournment of the Annual Meeting in the event that the number of shares of Common Stock and Series G Mirroring Preferred Stock present or represented by proxy at the Annual Meeting and voting "FOR" the adoption of Proposal 4 or Proposal 5 are insufficient (the "Adjournment Proposal" or "Proposal 8"); and
- 2. To transact such other business as may properly come before the Annual Meeting.

THE BOARD UNANIMOUSLY RECOMMENDS (1) A VOTE FOR THE ELECTION OF EACH OF THE DIRECTOR NOMINEES, (2) A VOTE FOR EVERY 1 YEAR AS THE FREQUENCY WITH WHICH SHAREHOLDERS ARE PROVIDED AN ADVISORY VOTE ON EXECUTIVE COMPENSATION, (3) A VOTE FOR THE APPROVAL OF THE EXECUTIVE COMPENSATION, (4) A VOTE TO AUTHORIZE THE COMPANY'S BOARD, IN ITS DISCRETION AT ANY TIME WITHIN ONE YEAR AFTER SHAREHOLDER APPROVAL IS OBTAINED, TO EFFECT A REVERSE STOCK SPLIT OF THEN-OUTSTANDING SHARES OF THE COMPANY'S COMMON STOCK, AT A RATIO OF NOT LESS THAN ONE-FOR-FIVE (1:5) AND NOT GREATER THAN ONE-FOR-FIFTY (1:50), (5) A VOTE TO INCREASE THE SHARES AVAILABLE FOR ISSUANCE UNDER THE COMPANY'S ARTICLES OF INCORPORATION TO 350,000,000 IN THE EVENT A REVERSE STOCK SPLIT OF OUR COMMON STOCK IS EFFECTUATED PRIOR TO APPROVAL OF THE REVERSE STOCK SPLIT, (7) A VOTE FOR THE RATIFICATION OF THE APPOINTMENT OF THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2025 AND (8) IF THE NUMBER OF SHARES OF COMMON STOCK AND SERIES G MIRRORING PREFERRED STOCK PRESENT OR REPRESENTED BY PROXY AT THE ANNUAL MEETING AND VOTING "FOR" THE ADOPTION OF PROPOSAL 4 OR PROPOSAL 5 ARE INSUFFICIENT, A VOTE FOR THE APPROVAL OF THE ADJOURNMENT PROPOSAL.

i

The Board has fixed the close of business on March 21, 2025 as the record date (the **'Record Date'**) for the determination of shareholders entitled to notice of, and to vote at, the Annual Meeting or any postponement or adjournment thereof. Accordingly, only shareholders of record at the close of business on the Record Date are entitled to notice of, and shall be entitled to vote at, the Annual Meeting or any postponement or adjournment thereof.

Your vote is important. You are requested to carefully read the Proxy Statement and accompanying Notice of Annual Meeting for a more complete statement of matters to be considered at the Annual Meeting.

Sincerely,

/s/ Janet Huffman

Janet Huffman Chief Financial Officer

Enclosures

IMPORTANT

WHETHER OR NOT YOU EXPECT TO ATTEND THE ANNUAL MEETING, PLEASE READ THE PROXY STATEMENT AND PROMPTLY VOTE YOUR PROXY BY COMPLETING, DATING, SIGNING AND RETURNING THE ENCLOSED PROXY IN ORDER TO ASSURE REPRESENTATION OF YOUR SHARES AT THE ANNUAL MEETING. YOUR PROXY, GIVEN THROUGH THE RETURN OF THE PROXY CARD, MAY BE REVOKED PRIOR TO ITS EXERCISE BY FILING WITH OUR CORPORATE SECRETARY PRIOR TO THE ANNUAL MEETING A WRITTEN NOTICE OF REVOCATION OR A DULY EXECUTED PROXY BEARING A LATER DATE, OR BY ATTENDING THE ANNUAL MEETING AND VOTING IN PERSON.

IF YOU HAVE ALREADY VOTED OR DELIVERED YOUR PROXY FOR THE ANNUAL MEETING, YOUR VOTE WILL BE COUNTED, AND YOU DO NOT HAVE TO VOTE YOUR SHARES AGAIN. IF YOU WISH TO CHANGE YOUR VOTE, YOU SHOULD REVOTE YOUR SHARES.

THE PROXY STATEMENT, OUR FORM OF PROXY CARD, AND OUR ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2024 ARE AVAILABLE ON THE INTERNET AT https://web.viewproxy.com/oragenics/2024 OR AT THE SEC'S WEBSITE AT https://www.sec.gov.

ii

ORAGENICS, INC.

1990 Main St. Suite 750 Sarasota, Florida 34236

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS TO BE HELD ON MAY 2, 2025

Notice is hereby given to the shareholders of Oragenics, Inc., a Florida Corporation (the "Company"), of the 2024 Annual Meeting of Shareholders of the Company (the "Annual Meeting") and all adjournments and postponements thereof. The Annual Meeting will be held at the offices of Shumaker, Loop, & Kendrick, Bank of America Plaza, 101 E Kennedy Blvd Suite 2800, Tampa, FL 33602 on May 2, 2025, at 10:00 a.m. Eastern Time, for the following purposes:

- 1. To elect five Directors of the Company to serve until the next Annual Meeting of Shareholders ("Proposal 1");
- 2. To conduct a non-binding advisory vote on the desired frequency of a non-binding advisory vote on executive compensation (the "Frequency of Voting for Executive Compensation Proposal" or "Proposal");
- 3. To conduct a non-binding advisory vote on executive compensation (the "Executive Compensation Proposal") or "Proposal 3");
- 4 To approve a proposal to authorize the Company's Board of Directors (the "Board"), in its discretion at any time within one year after shareholder approval is obtained, to effect a reverse stock split (the "Reverse Stock Split") of then-outstanding shares of the Company's Common Stock, at a ratio of not less than one-for-five (1:5) and not greater than one-for-fifty (1:50), with the exact ratio to be determined by the Company's Board and included in a public announcement (the "Reverse Stock Split Proposal" or "Proposal 4");
- 5. To approve an amendment to the Company's Articles of Incorporation, as amended, to increase the Company's authorized shares of common stock to 350,000,000 in the event a reverse stock split of our common stock is effectuated prior to approval of the Reverse Stock Split Proposal (the "Increase Authorized Shares Proposal" or "Proposal 5");
- 6. To approve an amendment to the Company's 2021 Equity Incentive Plan, as amended (the "2021 Equity Incentive Plan"), to increase the number of common shares available for issuance under the 2021 Equity Incentive Plan from 3,166,667 shares of Common Stock, as reduced by any Reverse Stock Split, to 3,166,667 shares of Common Stock after the implementation and contingent on the effectuation of the Reverse Stock Split (the "Incentive Plan Increase Proposal") or "Proposal 6");
- 7. To ratify the selection of Cherry Bekaert LLP as the Company's independent auditors for the year ending December 31, 2025 "Proposal 7");

- 8. To approve the adjournment of the Annual Meeting in the event that the number of shares of Common Stock and Series G Mirroring Preferred Stock present or represented by proxy at the Annual Meeting and voting "FOR" the adoption of Proposal 4 or Proposal 5 are insufficient (the "Adjournment Proposal" or "Proposal 8"); and
- 9. To transact such other business as may properly come before the Annual Meeting

The Board unanimously recommends a vote "FOR" the approval of each of the Director Nominees, for ONE YEAR on the Frequency of Voting for Executive Compensation Proposal and a vote "FOR" the approval of each of the following proposals: Executive Compensation Proposal, the Reverse Stock Split Proposal, the Increase Authorized Shares Proposal, the Incentive Plan Increase Proposal, the ratification of the appointment of the Auditor as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2025 and, if the number of shares of Common Stock and Series G Mirroring Preferred Stock present or represented by proxy at the Annual Meeting and voting "FOR" the adoption of Proposal 4 or Proposal 5 are insufficient, the Adjournment Proposal.

These items of business are more fully described in the Proxy Statement accompanying this Notice. All shareholders are cordially invited to attend the Annual Meeting.

The record date for the Annual Meeting is March 21, 2025. Only those shareholders of record at the close of business on that date are entitled to notice of and to vote at the Annual Meeting or any adjournment thereof. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the Annual Meeting, you must obtain a Proxy issued in your name from that record holder. To assure your representation at the Annual Meeting, please vote your Proxy by completing, dating, signing and returning the enclosed Proxy. Even if you have previously submitted your Proxy, you may choose to vote in person at the Annual Meeting. Whether or not you expect to attend the Annual Meeting, please read the Proxy Statement and then promptly vote your Proxy in order to ensure your representation at the Annual Meeting.

iii

You may access the materials for the Annual Meeting by visiting the website: https://web.viewproxy.com/oragenics/2024.

A complete list of shareholders entitled to vote at the Annual Meeting will be available for examination by any shareholder at the Annual Meeting and for a period of ten days prior thereto at the executive offices of the Company in Sarasota, Florida during ordinary business hours for any purpose germane to the Annual Meeting.

This Notice is not a form for voting and presents only an overview of the more complete Proxy materials, which contain important information and are available on the Internet at the above address or by mail upon request. Shareholders are encouraged to access and review carefully the information contained in the enclosed Proxy Statement prior to voting.

This Notice and the attached Proxy Statement are first being disseminated to shareholders on or about April 1, 2025.

BY ORDER OF THE BOARD OF DIRECTORS,

Sarasota, Florida April 1, 2025 /s/ JANET HUFFMAN JANET HUFFMAN Secretary

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Shareholders to Be Held on May 2, 2025:This Proxy Statement, along with our Annual Report on Form 10-K for the year ended December 31, 2024, is available at: https://web.viewproxy.com/oragenics/2024.

įν

TABLE OF CONTENTS

QUESTIONS AND ANSWERS ABOUT THE PROXY MATERIALS AND VOTING	1
PROPOSAL 1 ELECTION OF DIRECTORS	9
PROPOSAL 2 ADVISORY VOTE ON FREQUENCY OF VOTE ON EXECUTIVE COMPENSATION	12
PROPOSAL 3 ADVISORY VOTE ON EXECUTIVE COMPENSATION	13
PROPOSAL 4 REVERSE SPLIT PROPOSAL	14
PROPOSAL 5 INCREASE AUTHORIZED SHARES PROPOSAL	22
PROPOSAL 6 INCENTIVE PLAN INCREASE PROPOSAL	24
PROPOSAL 7 RATIFICATION OF THE SELECTION OF CHERRY BEKAERT LLP AS THE COMPANY'S INDEPENDENT AUDITORS	36
PROPOSAL 8 THE ADJOURNMENT PROPOSAL	38
REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS	39
CORPORATE GOVERNANCE	40
EXECUTIVE COMPENSATION	46
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS	58
CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS	60
DELINQUENT SECTION 16(a) REPORTS	60
HOUSEHOLDING OF PROXY MATERIALS	60
OTHER MATTERS	61

APPENDIX A- AMENDMENT TO ARTICLES OF INCORPORATION-REVERSE STOCK SPLIT	A-1
APPENDIX B AMENDMENT TO ARTICLES OF INCORPORATION-INCREASE AUTHORIZED SHARES	B-1
APPENDIX C AMENDMENT TO 2021 EQUITY INCENTIV PLAN	C-1
APPENDIX D PROXY CARD	D-1

ORAGENICS, INC. PROXY STATEMENT FOR HOLDERS OF COMMON STOCK FOR ANNUAL MEETING OF SHAREHOLDERS TO BE HELD ON MAY 2, 2025

This proxy statement (the "Proxy Statement") and our annual report for the fiscal year ended December 31, 2024 (the "Annual Report" and, together with the Proxy Statement, the "Proxy Materials") are being furnished by and on behalf of the Board of Directors (the "Board" or the "Board of Directors") of Oragenics, Inc. (the "Company," "we," "us," or "our"), in connection with our 2024 Annual Meeting of shareholders (the "Annual Meeting"). The Notice of Annual Meeting and Proxy Statement are first being distributed or made available, as the case may be, on or about April 1, 2025.

QUESTIONS AND ANSWERS ABOUT THE PROXY MATERIALS AND VOTING

Why am I receiving these materials?

We have sent you these Proxy Materials because the Board is soliciting your Proxy to vote at the Annual Meeting, including at any adjournments or postponements of the Annual Meeting. You are invited to attend the Annual Meeting to vote on the proposals described in this Proxy Statement. However, you do not need to attend the Annual Meeting to vote your shares. Instead, you may simply complete, sign and return the enclosed Proxy card, or follow the instructions below to submit your Proxy over the telephone or through the internet.

This Proxy Statement and the accompanying Proxy are first available to shareholders of the Company on or about April 1, 2025.

How do I attend the Annual Meeting?

The Annual Meeting will be held at 10:00 a.m. Eastern Time at the offices of Shumaker, Loop, & Kendrick, Bank of America Plaza, 101 E Kennedy Blvd Suite 2800, Tampa, FL 33602 on May 2, 2025. You may attend the Annual Meeting in person.

Who can vote at the Annual Meeting?

Only shareholders of the Company holding shares of Common Stock and Series G Mirroring Preferred Stock of record at the close of business on March 21, 2025 (the "Record Date") are entitled to notice of, and to vote at, the Annual Meeting. On the Record Date, there were 21,475,289 shares of Common Stock issued and outstanding ("Common Stock") and 1,000,000 shares of Series G Mirroring Preferred Stock issued and outstanding. Notwithstanding the Record Date specified above, the Company's stock transfer books will not be closed and shares may be transferred subsequent to the Record Date. However, all votes must be cast in the names of shareholders of record on the Record Date.

Each share of Common Stock is entitled to one vote for each share of Common Stock held.

Holders of the Series G Mirroring Preferred Stock are not entitled to vote at the Annual Meeting other than on Proposal 4 (the Reverse Stock Split Proposal), Proposal 5 (the Increase Authorized Shares Proposal) and Proposal 8 (the Adjournment Proposal). Holders of Series G Mirroring Preferred Stock are entitled to 1,000 votes per each share of Series G Mirroring Preferred Stock solely and exclusively with respect to the Reverse Stock Split Proposal, the Increase Authorized Shares Proposal and the Adjournment Proposal, voting together with the Common Stock as a single class. Each holder of Series G Mirroring Preferred Stock has agreed to vote, and cause its affiliates to vote, the shares of Series G Mirroring Preferred Stock on the Reverse Stock Split Proposal, the Increase Authorized Shares Proposal and, if the number of shares of Common Stock and Series G Mirroring Preferred Stock present or represented by proxy at the Annual Meeting and voting "FOR" the adoption of Proposal 4 and Proposal 5 are insufficient, the Adjournment Proposal, and has agreed that such shares of Series G Mirroring Preferred Stock shall, to the extent voted in favor of such proposals, be automatically and without further action of such holders be voted in the same proportions as shares of Common Stock (excluding any shares of Common Stock that are not voted) are voted on the Reverse Stock Split Proposal, Increase Authorized Shares Proposal and the Adjournment Proposal, as applicable.

1

In addition, on the Record Date, we had 7,488,692 shares of Series F Convertible Preferred Stock (which are convertible into approximately 7,488,692 shares of Common Stock), issued and outstanding. The Series F Convertible Preferred Stock is not entitled to vote at the Annual Meeting.

Shareholder of Record: Shares Registered in Your Name

If on March 21, 2025 your shares of Common Stock or Series G Mirroring Preferred Stock were registered directly in your name with the Company's transfer agent, then you are a shareholder of record. As a shareholder of record, you may vote in person during the Annual Meeting or vote by Proxy. Whether or not you plan to attend the Annual Meeting, we urge you to fill out and return the enclosed Proxy card or vote by Proxy over the telephone or internet as instructed below to ensure your vote is counted.

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

If on March 21, 2025 your shares were held, not in your name, but rather in an account at a brokerage firm, bank or other similar organization, then you are the beneficial owner of shares held in "street name" and these Proxy Materials are being forwarded to you by that organization. The organization holding your account is considered to be the shareholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker, bank or other agent regarding how to vote the shares in your account. However, since you are not the shareholder of record, you may not vote your shares during the Annual Meeting unless you request and obtain a legal proxy from your broker, bank or other agent. During the registration process, you will be asked to upload or email the legal proxy provided to you by your broker, bank or other agent. You are also invited to attend the Annual Meeting so long as you demonstrate proof of stock ownership. Instructions on how to demonstrate proof of stock ownership are posted at https://web.viewproxy.com/oragenics/2024. On the day of the Annual Meeting, if you are a beneficial holder, you may vote during the Annual Meeting only if you provide a copy of your legal proxy to https://web.viewproxy.com/oragenics/2024 as instructed below.

There are seven matters scheduled for a vote:

- 1. To elect five Directors of the Company to serve until the next Annual Meeting of Shareholders ("Proposal 1");
- 2. To conduct a non-binding advisory vote on the desired frequency of a non-binding advisory vote on executive compensation (the "Frequency of Voting for Executive Compensation Proposal" or "Proposal");
- 3. To conduct a non-binding advisory vote on executive compensation (the "Executive Compensation Proposal");
- To approve a proposal to authorize the Company's Board of Directors (the "Board"), in its discretion at any time within one year after shareholder approval is obtained, to effect a reverse stock split of then-outstanding shares of the Company's Common Stock, at a ratio of not less than one-for-five (1:5) and not greater than one-for-fifty (1:50), with the exact ratio to be determined by the Company's Board and included in a public announcement (the "Reverse Stock Split Proposal" or "Proposal 4");
- 5. To approve an amendment to the Company's Articles of Incorporation, as amended, to increase the Company's authorized shares of common stock to 350,000,000 in the event a reverse stock split of our common stock is effectuated prior to approval of the Reverse Stock Split Proposal (the "Increase Authorized Shares Proposal") or Proposal 5);
- 6. To approve an amendment to the Company's 2021 Equity Incentive Plan, as amended (the "2021 Equity Incentive Plan"), to increase the number of common shares available for issuance under the 2021 Equity Incentive Plan from 3,166,667 shares of Common Stock, as reduced by any Reverse Stock Split to 3,166,667 shares of Common Stock, after the implementation and contingent on the effectuation of the Reverse Stock Split (the "Incentive Plan Increase Proposal") or "Proposal 6");
- 7 To ratify the selection of Cherry Bekaert LLP as the Company's independent auditors for the year ending December 31, 2025 "Proposal 7"); and
- 8. To approve the adjournment of the Annual Meeting in the event that the number of shares of Common Stock and Series G Mirroring Preferred Stock present or represented by proxy at the Annual Meeting and voting "FOR" the adoption of Proposal 4 or Proposal 5 are insufficient (the "Adjournment Proposal" or "Proposal 8")

2

How does the Board recommend I vote?

The Board unanimously recommends that you vote your shares:

- "FOR" the nominees listed in Proposal 1;
- "FOR" every 1 year as the frequency with which shareholders are provided an advisory vote on executive compensation (Proposal 2);
- "FOR" the approval, on an advisory basis, of the compensation of our named executive officers as disclosed in this Proxy Statement (Proposal 3);
- "FOR" the approval of the Reverse Stock Split Proposal (Proposal 4);
- "FOR" the approval of the Increase Authorized Shares Proposal (Proposal 5);
 - "FOR" the approval of the Incentive Plan Increase Proposal (Proposal 6);
- "FOR" the ratification the selection of Cherry Bekaert LLP as the Company's independent auditors for the year ending December 31, 2025 (Proposal 7).
- "FOR" the approval of the Adjournment Proposal (Proposal 8), if the number of shares of Common Stock and Series G Mirroring Preferred Stock present or represented by proxy at the Annual Meeting and voting "FOR" the adoption of Proposal 4 and Proposal 5 are insufficient.

What if another matter is properly brought before the Annual Meeting?

The Board knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly presented for consideration at the Annual Meeting, including, among other things, consideration of a motion to adjourn the Annual Meeting to another time or place (including, without limitation, for the purpose of soliciting additional proxies), the persons named as proxies and acting thereunder will have discretion to vote on those matters in accordance with their best judgment. To the extent permitted by the Securities and Exchange Commission (the "SEC"), the persons named as proxies on the Proxy cards will have discretionary authority to vote in their judgment on any proposals properly presented by shareholders for consideration at the Annual Meeting that were not submitted to the Company within a reasonable time prior to the mailing of these Proxy Materials.

How do I vote?

You may either vote "For" all the nominees to the Board of Directors or you may "Withhold" your vote for any nominee you specify. For each of the other matters, you may vote "For" or "Against" or abstain from voting.

The procedures for voting are fairly simple:

Shareholder of Record: Shares Registered in Your Name

If your shares are registered directly in your name with the Company's transfer agent, Continental Stock Transfer & Trust Company, you are considered, with respect to those shares, the shareholder of record, and the Proxy Materials and Annual Report have been sent directly to you. As a shareholder of record, you may vote during the Annual Meeting, vote by Proxy using the enclosed Proxy card, vote by Proxy over the telephone or vote by Proxy through the internet. You may instruct the Proxy holders how to vote your shares through the internet or by completing, signing, dating and returning the Proxy card in the postage pre-paid envelope provided.

3

By Internet: To vote through the internet, go to https://web.viewproxy.com/oragenics/2024 to complete an electronic Proxy card. Please have your enclosed Proxy card available when you access the voting website and follow the prompts to vote your shares. Your internet vote must be received by 11:59 p.m. Eastern Time on May 1, 2025, to be counted.

By Mail: To vote using the Proxy card, simply complete, sign and date the enclosed Proxy card and return it promptly in the envelope provided. Proxy cards submitted by mail must be received by the time of the Annual Meeting in order for your shares to be voted. If you sign and return a Proxy card without giving specific voting instructions, your shares will be voted as recommended by our Board.

By Telephone: You may also vote by Proxy via telephone by calling Continental Stock Transfer & Trust Company at 1-(866) 894-0536. You will be asked to provide the virtual control number from your Notice of Internet Availability of Proxy Materials or Proxy card. Your telephone vote must be received by 11:59 p.m. Eastern Time on May 1, 2025, to be counted.

During the Annual Meeting: If you attend the Annual Meeting, you may also submit your vote in person, and any previous votes that you submitted, will be superseded by the vote that you cast at the Annual Meeting. If you plan to attend the Annual Meeting, please bring proof of identification for entrance to the Annual Meeting.

Beneficial Owner: Shares Registered in the Name of Broker or Bank

Many Company shareholders hold their shares through a broker, trustee or other nominee, rather than directly in their own name. If your shares are held in a brokerage account or by a bank or another nominee, you are considered the "beneficial owner" of shares held in "street name," and the Annual Meeting Proxy Materials have been forwarded to you by your broker, trustee or nominee who is considered, with respect to those shares, the shareholder of record. As a beneficial owner, you have the right to direct your broker, trustee or other nominee on how to vote your shares, and you will receive instructions from them that you must follow in order to have your shares voted. The instructions from your broker, bank or other nominee will indicate if Internet and telephone voting are available, and if they are available, will provide details regarding Internet and telephone voting.

Because a beneficial owner is not the shareholder of record, you may not vote these shares in person at the Annual Meeting unless you obtain a "legal proxy" from the broker, trustee or nominee that holds your shares, giving you the right to vote the shares at the Annual Meeting.

Internet Proxy voting has been provided to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your Proxy vote instructions. However, please be aware that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.

How many votes do I have?

On each matter to be voted upon, each share of Common Stock is entitled to one vote for each share of Common Stock held by you as of March 21, 2025. The Series F Convertible Preferred Stock is not entitled to vote at the Annual Meeting. Holders of the Series G Mirroring Preferred Stock are not entitled to vote at the Annual Meeting other than on Proposal 4 (the Reverse Stock Split Proposal), Proposal 5 (the Increase Authorized Shares Proposal) and Proposal 8 (the Adjournment Proposal). Holders of Series G Mirroring Preferred Stock are entitled to 1,000 votes per each share of Series G Mirroring Preferred Stock solely and exclusively with respect to the Reverse Stock Split Proposal, the Increase Authorized Shares Proposal and the Adjournment Proposal, voting together with the Common Stock as a single class. Each holder of Series G Mirroring Preferred Stock has agreed to vote, and cause its affiliates to vote, the shares of Series G Mirroring Preferred Stock on the Reverse Stock Split Proposal, the Increase Authorized Shares Proposal and, if the number of shares of Common Stock and Series G Mirroring Preferred Stock present or represented by proxy at the Annual Meeting and voting "FOR" the adoption of Proposal 4 and Proposal 5 are insufficient, the Adjournment Proposal, and has agreed that such shares of Series G Mirroring Preferred Stock shall, to the extent voted in favor of such proposals, be automatically and without further action of such holders be voted in the same proportions as shares of Common Stock (excluding any shares of Common Stock that are not voted) are voted on the Reverse Stock Split Proposal, Increase Authorized Shares Proposal and the Adjournment Proposal, as applicable.

Δ

If I am a shareholder of record and I do not vote, or if I return a Proxy card or otherwise vote without giving specific voting instructions, what happens?

If you submit a Proxy and do not make voting selections, the shares represented by that Proxy will be voted as recommended by the Board.

Shareholders of record — If you are a shareholder of record and you do not cast your vote, no votes will be cast on your behalf on any of the items of business at the Annual Meeting.

Beneficial owners — If you hold your shares in street name, it is critical that you cast your vote if you want it to count in the election of Directors (Proposal 1), the frequency of the non-binding advisory vote on executive compensation (Proposal 2), the non-binding the non-binding advisory vote on executive compensation (Proposal 3), the Reverse Stock Split Proposal (Proposal 4), the Increase Authorized Shares Proposal (Proposal 5, and the Incentive Plan Increase Proposal (Proposal 6) since those are considered non-routine proposals under applicable NYSE American LLC ("NYSE American") rules. Under the rules, if you do not instruct your broker, bank or other nominee in a timely fashion how to vote your shares (so-called "broker non-votes") the broker or nominee can vote your shares as it sees fit only on matters that are determined to be routine, and not on any other proposal. The proposal for the ratification of the auditors (Proposal 7) is considered to be a routine proposal under NYSE American rules and your nominee can vote on such proposals even if it does not receive voting instructions from you. However, your nominee cannot vote on Proposal 1, Proposal 2, Proposal 3, Proposal 4, Proposal 5 or Proposal 6 without your voting instructions. Please be sure to give specific voting instructions so that your vote can be counted.

Who is paying for this Proxy solicitation?

We will bear the entire cost of Proxy solicitation, including preparation, assembly, printing and mailing of the Notice. As described in the Notice, we will also bear the entire cost of preparation, assembly, printing and mailing Proxy Materials, and any additional materials furnished to shareholders by request only. Copies of Proxy Materials will be furnished to brokerage houses, fiduciaries, and custodians holding shares in their names which are beneficially owned by others to forward to such beneficial owners. In addition, we may reimburse such persons for their cost of forwarding the solicitation material to such beneficial owners. We have retained Alliance Advisors to assist in the solicitation of votes by mail, facsimile or email from brokerage firms, banks, broker-dealers or other similar organizations for the Annual Meeting for a fee of \$14,500.00, plus additional fees based on the amount and types of services rendered and reimbursement of reasonable expenses. If you have any questions or need assistance in voting your Proxy, please contact Alliance Advisors at the number or email address listed below:

Alliance Advisors, 200 Broadacres Drive, 3rd Fl., Bloomfield, NJ 07003 Telephone: Toll Free: 1-855-723-7816 and Outside North America: 1-973-873-7700 Email: OGEN@allianceadvisorsllc.com

Solicitation of proxies by mail may also be supplemented by one or more of telephone, email, telegram, facsimile, or personal solicitation by our Directors, officers, or regular employees. No additional compensation will be paid for such services.

What does it mean if I receive more than one set of Proxy Materials?

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

Can I change my vote after submitting my Proxy?

Subject to any rules your broker, trustee or nominee may have, you may change your Proxy instructions at any time before your Proxy is voted at the Annual Meeting.

Shareholders of record — If you are a shareholder of record, you may change your vote (1) by delivering to us (Attention: Corporate Secretary, 1990 Main St. Suite 750, Sarasota, Florida 34236), prior to your shares being voted at the Annual Meeting, a later dated written notice of revocation or a duly executed Proxy card, or (2) by attending the Annual Meeting and voting in person (although attendance at the Annual Meeting will not, by itself, revoke a Proxy). A shareholder of record that has voted on the Internet or by telephone may also change his, her or its vote by subsequently making a timely and valid later Internet or telephone vote.

Beneficial owners — If you are a beneficial owner of shares held in street name, you may change your vote (1) by submitting new voting instructions to your broker, trustee or nominee, or (2) if you have obtained a legal Proxy from the broker, trustee or nominee that holds your shares giving you the right to vote the shares, by attending the Annual Meeting and voting in person.

When are shareholder proposals due for next year's annual meeting of shareholders?

Requirements for shareholder proposals to be considered for inclusion in Oragenics' Proxy Materials. Shareholders interested in submitting a proper proposal for inclusion in the Proxy Materials for our next annual meeting may do so by submitting such PROPOSAL in writing to our offices located at 1990 Main St. Suite 750 Sarasota, Florida 34236, Attn: Corporate Secretary. To be eligible for inclusion, shareholder proposals must be received by us not less than 120 days before the one year anniversary on which the Company first mailed its Proxy Statement to shareholders in connection with the previous year's annual meeting of shareholders, which will be December 1, 2025 for next annual meeting, and must otherwise comply with the requirements of Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), provided, however, that in the event that the date of the annual meeting has been changed more than 30 days from the one year anniversary of the date of the previous year's meeting, then the deadline for receipt of notice by the shareholder is within a reasonable time before the Company begins to distribute its Proxy Materials in order to be eligible for inclusion in the Company's Proxy Statement and Proxy relating to that meeting.

Requirements for shareholder business or nominations to be brought before Oragenics' annual meetings. Our bylaws do not establish an advance notice procedure for shareholders who wish to present certain matters, including nominations of persons for election to the Board and shareholder proposals not included in our Proxy Statement, to be brought before an annual meeting of shareholders. Shareholder proposals, including the nomination of a person for election to the Board, brought before the Annual Meeting should consider including, among other things: information as follows: (i) a description of the business desired to be brought before the Annual Meeting and the reasons for conducting the business at the Annual Meeting, (ii) the name and address, as they appear on the Company's books, of the shareholder submitting the proposal, (iii) the number of shares that are beneficially owned by such shareholder, (iv) the dates on which the shareholder acquired the shares, (v) documentary support for any claim of beneficial ownership, (vi) any material interest of the shareholder in the proposal, (vii) a statement in support of the proposal, and (viii) any other information that may be required by applicable rules and regulations of the SEC.

Shareholders may also submit a recommendation (as opposed to a formal nomination) for a candidate for membership on our Board by following the procedures set forth in "Corporate Governance —Meetings of the Board of Directors — Shareholder Recommendation of Nominees"

How are votes counted?

Votes will be counted by an inspector of election appointed for the Annual Meeting, who will separately count, for the proposal to elect directors, votes "For," "Withhold" and broker non-votes; with respect to the other proposals, votes "For" and "Against," abstentions and, if applicable, broker non-votes.

With respect to the election of Directors, shareholders may (i) vote "For" each of the nominees, (ii) withhold authority for each of such nominees, or (iii) withhold authority for specific nominees but vote "For" the other nominees. Votes that are withheld or a broker non-vote will have no effect on the outcome of the election of Directors.

With regard to all proposals other than Proposal 1 (the election of directors), abstentions will be counted towards the vote total and will have the same effect as "Against" votes.

6

Broker non-votes on Proposal 2 (the Frequency of Executive Compensation Proposal), on Proposal 3 the Executive Compensation Proposal), on Proposal 4 (the Reverse Stock Split Proposal), Proposal 5 (the Increase Authorized Shares Proposal) and Proposal 6 (the Incentive Plan Increase Proposal) will have no effect on the outcome of such proposals, as these are not routine matters and, accordingly, a broker or other nominee is not empowered to vote in the absence of voting instructions from the beneficial owner. Proposal 7 (the ratification of accountants) is routine proposals on which a broker or other nominee is generally empowered to vote in the absence of voting instructions from the beneficial owner, so broker non-votes are unlikely to result from these proposals, but if you do not provide voting instructions and your broker or nominee fails to vote your shares, this will have the same effect as a vote "Against" the proposal. A broker non-vote is when a brokerage firm or bank holding shares of record for their customers in street name does not receive specific instructions from their customers, as the beneficial owners, and the brokerage firm or bank advises that it lacks discretionary voting authority on a particular proposal and has not received instructions from the beneficial owner.

How many votes are needed to approve each proposal?

Proposal 1, the election of five Directors by the holders of Common Stock, requires a plurality of the votes cast by the shares of Common Stock represented and entitled to vote in the election at the Annual Meeting. As such, because the Directors are elected by a plurality of the votes cast by the shares represented and entitled to vote and are running unopposed, any nominee can be elected upon any affirmative vote regardless of whether such nominee receives more than 50% of the shareholder vote. Votes that are withheld or a broker non-vote will have no effect on the outcome of the election of Directors.

Proposal 2 (the Frequency of Executive Compensation Proposal), Proposal 3 (the Executive Compensation Proposal), Proposal 6 (the Incentive Plan Increase), Proposal 7 (the ratification of the selection of Cherry Bekaert LLP as the Company's independent auditors for the year ending December 31, 2025) and Proposal 8 (the Adjournment Proposal) require the affirmative vote of the majority of the shares represented in person or by Proxy at the Annual Meeting and entitled to vote on such proposals.

Each of Proposal 4 (the Reverse Stock Split Proposal) and Proposal 5 (the Increase Authorized Proposal) requires affirmative vote of a majority of the shares represented in person or by Proxy and entitled to vote on such proposals at a meeting at which a quorum exists consisting of at least a majority of the shares entitled to be cast on such proposals.

What is the quorum requirement?

Except as otherwise set forth herein or by law, the holders of record of one-third of the votes of Common Stock entitled to be voted at the Annual Meeting, present in person or by Proxy, are required to establish a quorum for the Annual Meeting and for voting on each matter.

How can I find out the results of the voting at the Annual Meeting?

Preliminary voting results will be announced at the Annual Meeting. In addition, final voting results will be published in a Current Report on Form 8-K that we expect to file within four business days after the Annual Meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the Annual Meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

THIS QUESTION AND ANSWER SECTION IS ONLY MEANT TO GIVE AN OVERVIEW OF THE PROXY STATEMENT. FOR MORE INFORMATION, PLEASE REFER TO THE MATERIAL CONTAINED IN THE SUBSEQUENT PAGES.

CAUTIONARY INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

This proxy statement, and the documents incorporated by reference into this proxy statement, contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, but not limited to, statements regarding: the impact on the Company of failure to approve the proposals and the Company's future performance, business prospects, events and product development plans. These forward-looking statements are based on management's beliefs and assumptions and information currently available. The words "believe," "expect," "anticipate," "intend," "estimate," "project" and similar expressions that do not relate solely to historical matters identify forward-looking statements. You should be cautious in relying on forward-looking statements because they are subject to a variety of risks, uncertainties, and other factors that could cause actual results to differ materially from those expressed in any such forward-looking statements. These factors include, but are not limited to: the Company's ability to control its expenses and to obtain additional financing; the Company's ability to advance the development of its product candidates under the timelines and in accord with the milestones it projects; the Company's ability to obtain funding, non-dilutive or otherwise, whether through its own cash on hand, or another alternative source; the regulatory application process, research and development stages, and future clinical data and analysis relating to its product candidates, including any meetings, decisions by regulatory authorities, such as the FDA and investigational review boards, whether favorable or unfavorable; the Company's ability to obtain, maintain and enforce necessary patent and other intellectual property protection; the nature of competition and development relating the Company's product candidates; the Company's expectations as to administration, manufacturing, storage and distribution; other potential adverse impacts due to global pandemics, such as d

0

PROPOSAL 1 ELECTION OF DIRECTORS

The Board of Directors currently is comprised of five Board members, consisting of Dr. Alan Dunton, John P. Gandolfo, Robert C. Koski, Charles L. Pope, and Dr. Frederick W. Telling. All of our existing Directors are nominated for re-election at the Annual Meeting. If elected, each of the Directors will hold office until the next annual meeting of shareholders and until their successor is elected and qualified, or as otherwise provided by the Company's Bylaws or by Florida law.

If any of the nominees should be unavailable to serve for any reason, the Board of Directors may:

- designate a substitute nominee, in which case the persons named as proxies will vote the shares represented by all valid Proxies for the election of such substitute nominee;
- allow the vacancy to remain open until a suitable candidate is located and nominated; or
- adopt a resolution to decrease the authorized number of Directors.

Each director to be elected and qualified will hold office until the next annual meeting of shareholders and until his or her successor is elected, or, if sooner, until the director's death, resignation or removal. Each of the nominees listed below is currently a director of the Company who was previously elected by the shareholders.

It is our policy to invite and encourage nominees for directors to attend the Annual Meeting. All of our directors attended the 2023 annual meeting.

Directors are elected by a plurality of the votes of the holders of shares present at the Annual Meeting or represented by Proxy and entitled to vote on the election of directors. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the five nominees named below. If any nominee becomes unavailable for election as a result of an unexpected occurrence, shares that would have been voted for that nominee will instead be voted for the election of a substitute nominee that we propose. Each person nominated for election has agreed to serve if elected. We have no reason to believe that any nominee will be unable to serve.

Information About Nominees

The following is a brief biography, as of the date of this Proxy Statement, of each nominee for director and a discussion of the specific experience, qualifications, attributes or skills of each nominee that led the Nominating and Corporate Governance Committee (the "Nominating Committee") to recommend that person as a nominee for director, as of the date of this Proxy Statement.

The Nominating Committee believes that the collective skills, experiences and qualifications of our directors provide our Board with the expertise and experience necessary to advance the interests of our shareholders. In selecting directors, the Nominating Committee considers candidates that possess qualifications and expertise that will enhance the composition of the Board, including the considerations set forth herein. These considerations are not meant as minimum qualifications, but rather as guidelines in weighing all of a candidate's qualifications and expertise. The Nominating Committee seeks to assemble a Board that, as a whole, possesses the appropriate balance of professional and industry knowledge at the policy-making level, financial expertise and high-level management experience necessary to oversee and direct the Company's business. The nominees should exhibit commitment to enhancing shareholder value and have sufficient time to carry out their duties and to provide insight and practical wisdom based on their past experience. To that end, the Nominating Committee has identified and evaluated nominees in the broader context of the Board's overall composition, with the goal of recruiting members who complement and strengthen the skills of other members and who also exhibit integrity, collegiality, sound business judgment and other qualities that the Nominating Committee views as critical to effective functioning of the Board. In addition to the individual attributes of each of our current Board members described below, the Nominating Committee believes that our Board members should have the highest professional and personal ethics and values, consistent with the Company's longstanding values and standards. To provide a mix of experience and perspective on the Board, the Nominating Committee also takes into account gender, age, and ethnic diversity.

9

The brief biographies below include information, as of March 21, 2025, regarding the specific and particular experience, qualifications, attributes or skills of each director or nominee that led the Nominating Committee to believe that that nominee should continue to serve on the Board. However, each of the members of the Nominating Committee may have a variety of reasons why he believes a particular person would be an appropriate nominee for the Board, and these views may differ from the views of other members.

Name	Age	Position		
Charles L. Pope	73	Executive Chairman and Director		
Frederick W. Telling, Ph.D.	73	Director		

Robert C. Koski	66	Director
Alan W. Dunton, M.D.	70	Director
John P. Gandolfo	64	Director

Directors of the Company

Charles L. Pope. Mr. Pope was elected Chairman on December 16, 2022, and has served as a Director since June 2010. Mr. Pope served as the Chief Financial Officer of Palm Bancorp, Inc. from June 2009 to June 2012. From September 2007 through June 2009, Mr. Pope served as the Chief Financial Officer of Aerosonic Inc., a manufacturer of aviation products. Mr. Pope served as the Chief Financial Officer of Reptron Inc., a manufacturer of electronic products, from March 2005 through June 2007. From March 2002 to March 2005, Mr. Pope served as Chief Financial Officer of SRI/Surgical Express, Inc. From February 2001 to March 2002, Mr. Pope served as Chief Financial Officer of Innovaro, Inc. (formerly UTEK Corporation NYSE American: INV) a public company. Mr. Pope served as a Director for Trxade Health, Inc. (NASDAQ: MEDS). Mr. Pope served as a Director of Innovaro, Inc. from March 2010 to August 2012. Mr. Pope also served as a director of Inuvo, Inc. from July 2008 through July 2018. Prior to this time, Mr. Pope served as a Partner in the Audit and Financial Advisory Consulting Divisions of PricewaterhouseCoopers LLP, and he was also a Partner in the Accounting and SEC Directorate in PricewaterhouseCoopers LLP's New York City office. Mr. Pope holds a B.S. degree in Economics and Accounting from Auburn University and is a Certified Public Accountant in Florida.

Mr. Pope brings to our Board over three decades of experience in the finance and accounting fields. In addition, Mr. Pope also has experience serving as a director of public companies.

Dr. Frederick W. Telling. Dr. Telling has served as a Director since June 2010. Dr. Telling served as Chairman of the Board of Directors from February 4, 2011, through December 16, 2022 and as Executive Chairman from May 2, 2021 through December 16, 2022. Dr. Telling retired from Pfizer Inc. in June 2007 after 30 years of service. At Pfizer Dr. Telling served as its Corporate Vice President and Vice President of Corporate Strategic Planning and Policy. Dr. Telling also serves on the boards of various civic and non-profit organizations. Dr. Telling holds a B.A. degree in History and Economics from Hamilton College and a MA degree in Industrial and Labor Relations and a PhD in Economics and Public Policy from Cornell University.

Dr. Telling brings to our Board an extensive array of business and industry experience as well as experience as a director of public companies.

Dr. Alan W. Dunton. Dr. Dunton has served as a Director of Oragenics, Inc. since April 2011. He is the principal owner of Danerius, LLC, a biotechnology consulting company which he founded in 2006. In addition to Oragenics, he is currently a Director of the public biotechnology company, Palatin, Inc. (AMEX: PTN), CorMedix (NASDAQ: CRMD) and Recce Pharmaceuticals (ASX: RCE). Dr. Dunton has held significant senior positions in major pharmaceutical companies. Most recent was from November 2015 through March 2018 as the Senior Vice President of Research, Development and Regulatory Affairs of Purdue Pharma L.P., a private pharmaceutical company. From January 2007 until March 2009, Dr. Dunton served as President and Chief Executive Officer of Panacos Pharmaceuticals, Inc. In 2005, Dr. Dunton served as the Non-Executive Chairman of the Board of Directors of ActivBiotics, Inc., a private biopharmaceutical company. Previously, he was the President and Chief Executive Officer of Metaphore Pharmaceuticals, Inc. from 2003 until 2006, when it merged with ActivBiotics. From 2004 until 2005, Dr. Dunton served as a member of the Board of Directors of Vicuron Pharmaceuticals until it was acquired by Pfizer, Inc. In 2002, Dr. Dunton served as President, Chief Operating Officer and a Director of Emisphere Technologies, Inc., a biopharmaceutical company. From 1994 to 2001, Dr. Dunton was a senior executive in various capacities in the Pharmaceuticals Group of Johnson & Johnson. From 1999 to 2001, Dr. Dunton was President and Managing Director of The Janssen Research Foundation, a Johnson & Johnson company. From 1998 to 1999, he served as Group Vice President of Global Clinical Research and Development at the R. W. Johnson Pharmaceutical Research Institute, also a Johnson & Johnson company. Prior to joining Johnson & Johnson, Dr. Dunton held positions in clinical research and development at Syntex Corporation, CIBA-GEIGY Corporation and Hoffmann La Roche Inc. Dr. Dunton holds a MD degree from New York University Medical Center.

10

Dr. Dunton brings to our Board a significant depth of experience in the pharmaceutical industry that will be invaluable to the Company as we continue to develop biotechnology assets.

Robert C. Koski. Mr. Koski has served as a Director since June 2009. Mr. Koski has practiced as an attorney with the Koski Firm, a sole proprietorship located in Atlanta, Georgia since 1992, where his practice includes litigation and tax law. Mr. Koski has also served as a partner in the Koski Family Limited Partnership, which beneficially owns an interest in the Company, and as a Director of the Koski Family Foundation since December 1996. Mr. Koski holds a B.A. degree in Philosophy and English from Colgate University, a JD from Emory School of Law and an LLM degree in Taxation and Litigation from Emory University.

Mr. Koski brings to our Board over two decades of experience in the legal field as a practicing attorney. In addition to his legal experience, Mr. Koski's educational background provides a foundation for leadership and consensus-building.

John P. Gandolfo. Mr. Gandolfo has served as Director since October, 2023. Mr. Gandolfo has approximately 33 years of experience as a Chief Financial Officer ("CFO") of multiple rapidly growing private and publicly held companies with a primary focus in the life sciences, healthcare and medical device areas. Mr. Gandolfo has had direct responsibility over capital raising, including five public offerings, financial management, mergers and acquisition transactions and SEC reporting throughout his professional career. Mr. Gandolfo served as CFO of Eyenovia, Inc., (EYEN) a late-stage ophthalmic biopharmaceutical company, from January 2018 to present. Prior to this, Mr. Gandolfo was CFO of Xtant Medical Holdings, Inc., a biologics company, from July 2010 through September 2017. Prior to this, he served as the CFO for Progenitor Cell Therapy LLC from January 2009 to June 2010 and, before that, as CFO of Power Medical Interventions, Inc. from January 2007 to January 2009. Mr. Gandolfo was the CFO of Bioject Medical Technologies, Inc. prior to this. He was also the CFO of Capital Access Network, Inc., from 2000 through September 2001, and Xceed, Inc. from 1999 to 2000. From 1994 to 1999, Mr. Gandolfo was CFO and COO of Impath, Inc. From 1987 through 1994, he was CFO of Medical Resources, Inc. Mr. Gandolfo previously served on the Board of Directors and was chair of the Audit Committee of Odyssey Health, Inc. fk/a Odyssey Group International, Inc., (ODDY) from 2019 until 2023. Mr. Gandolfo is currently a member of the Board of Directors of Electrocore, Inc. (ECOR) and is chair of the Compensation Committee and sits on their audit committee. Mr. Gandolfo received his B.A. degree in Business Administration from Rutgers University.

We believe that Mr. Gandolfo possesses specific attributes that qualify Mr. Gandolfo to serve on the Board of Directors, including Mr. Gandolfo's extensive experience in the life sciences and pharmaceutical industries, as well as John P. Gandolfo's management experience. Mr. Gandolfo has management experience in a publicly-traded company.

See "Corporate Governance" below for additional information regarding the Board.

We believe that each nominee for director displays: personal and professional integrity; satisfactory levels of education and/or business experience; broad-based business acumen; an appropriate level of understanding of our business and its industry and other industries relevant to our business; the ability and willingness to devote adequate time to the work of our Board and its committees; skills and personality that complement those of our other directors that helps build a board that is effective, collegial and responsive to the needs of our company; strategic thinking and a willingness to share ideas; a diversity of experiences, expertise and background; and the ability to represent the interests of all of our shareholders. The information presented regarding each nominee for director and continuing director also sets forth specific experience, qualifications, attributes and skills that led our Nominating Committee to the conclusion that such individual should serve as a director in light of our business and structure.

There are no family relationships between or among any of our directors or executive officers. The principal occupation and employment during the past five years of each of our directors was carried on, in each case except as specifically identified above, with a corporation or organization that is not a parent, subsidiary or other affiliate of

us. There is no arrangement or understanding between any of our directors and any other person or persons pursuant to which he or she is to be selected as a director.

There are no material legal proceedings to which any of our directors is a party adverse to us or any of our subsidiaries or in which any such person has a material interest adverse to us or our subsidiary.

Vote Required and Board of Directors' Recommendation

If a choice is specified on the Proxy by the shareholder, the shares will be voted as specified. If no specification is made, the shares will be voted FOR the Director nominees. Election of each Director nominee will require the affirmative vote of a plurality of the votes cast by shares of Common Stock represented and entitled to vote at the Annual Meeting.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF EACH NAMED NOMINEE.

11

PROPOSAL 2

ADVISORY VOTE ON THE FREQUENCY OF FUTURE ADVISORY VOTES ON EXECUTIVE COMPENSATION

Summary

Section 14A of the Securities and Exchange Act of 1934, as amended (the "Exchange Act") requires us to submit a non-binding, advisory vote to shareholders at least once every six years to allow shareholders to express their opinion as to whether advisory votes on executive compensation should be held every one, two or three years. In 2019, our shareholders voted in favor of holding the advisory votes on executive compensation every year, and the Company adopted this standard. In accordance with the SEC requirement, shareholders are again being asked to vote, on a non-binding basis, on the frequency of future advisory votes on executive compensation in 2025.

After careful consideration of this proposal, our Board has determined that an advisory vote on executive compensation that occurs every year is the most appropriate alternative for us, and, therefore, our Board recommends that you vote for a one-year interval for the advisory vote on our named executive officers' compensation.

In formulating its recommendation, our Board considered that an annual advisory vote on named executive officer compensation will allow our shareholders to provide us with their direct and timely input on our compensation philosophy, policies and practices as disclosed in the proxy statement every year. You may cast your vote on your preferred voting frequency by choosing the option of one year, two years, three years or you may abstain from voting.

The option of one year, two years or three years that receives the highest number of votes cast by shareholders will be the frequency for the advisory vote on named executive officer compensation that has been selected by shareholders. However, because this vote is advisory and not binding on the Company, the Board may decide that it is in the best interests of the Company and our shareholders to hold an advisory vote on executive compensation more or less frequently than the option approved by our shareholders.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE FOR "EVERY 1 YEAR" IN PROPOSAL 2 AS THE FREQUENCY WITH WHICH SHAREHOLDERS ARE PROVIDED AN ADVISORY VOTE ON EXECUTIVE COMPENSATION.

12

PROPOSAL 3 ADVISORY VOTE ON EXECUTIVE COMPENSATION

As provided in the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the 'Dodd-Frank Act') and as required by Section 14A of the Exchange Act, we provided our shareholders the opportunity to advise our Compensation Committee and Board of Directors regarding the compensation of our named executive officers as described in our Proxy Statement pursuant to the compensation disclosure rules of the Securities and Exchange Commission ("Say on Pay"). Our shareholders also were asked to indicate how frequently we should seek a "say on pay" advisory vote. The shareholders were able to indicate whether they would prefer an advisory vote on named executive officer compensation once every one, two, or three years. In 2019, our shareholders voted in favor of holding the advisory votes on executive compensation every year, and the Company adopted this standard. Therefore, we provide our shareholders the opportunity to advise our Compensation Committee and Board of Directors regarding the compensation of our named executive officers as described in this Proxy Statement. In accordance with that policy, this year, the Company is again asking the shareholders to approve, on an advisory basis, the compensation of the Company's named executive officers as disclosed in this Proxy Statement in accordance with SEC rules.

This vote is not intended to address any specific item of compensation, but rather the overall compensation of the Company's named executive officers and the philosophy, policies and practices described in this Proxy Statement. The compensation of the Company's named executive officers subject to the vote is disclosed in the compensation tables and the related narrative disclosure contained in this Proxy Statement. As discussed in those disclosures, the Company believes that its compensation policies and decisions are strongly aligned with our shareholders' interests and consistent with current market practices for similarly situated companies. Compensation of the Company's named executive officers is designed to enable the Company to attract and retain talented and experienced executives to lead the Company successfully in a competitive environment.

Accordingly, the Board is asking the shareholders to indicate their support for the compensation of the Company's named executive officers as described in this Proxy Statement by casting a non-binding advisory vote "FOR" the following resolution:

"RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including compensation tables and narrative discussion, is hereby APPROVED."

Because the vote is advisory, it is not binding on the Board of Directors or the Company. Nevertheless, the views expressed by the shareholders, whether through this vote or otherwise, are important to management and the Board and, accordingly, the Board and the Compensation Committee intend to consider the results of this vote in making determinations in the future regarding executive compensation arrangements.

Vote Required and Board of Directors' Recommendation

Advisory approval of this proposal requires the affirmative vote of the majority of the shares represented in person or by Proxy at the Annual Meeting and entitled to vote on the matter. Unless the Board decides to modify its policy regarding the frequency of soliciting say-on-pay votes, the next scheduled say-on-pay vote will be at the 2025 annual meeting of shareholders.

13

PROPOSAL 4

APPROVAL OF REVERSE STOCK SPLIT PROPOSAL

Our Board approved, and is hereby soliciting shareholder approval of, an amendment to our articles of incorporation to effect a reverse stock split (the **Reverse Stock Split**") at a ratio of not less than one-for-five and not more than one-for-one fifty in the form set forth in **Appendix A** to this proxy statement (the "**Reverse Stock Split Amendment**"). A vote FOR this Proposal 4 will constitute approval of the Reverse Stock Split Amendment providing for the combination of any whole number of shares of Common Stock between five and fifty into one share of Common Stock and will grant our Board of Directors the authority to select which of the approved exchange ratios within that range will be implemented. In addition, our Board may determine to effect the Reverse Stock Split even if the trading price of our common stock is at or above the Minimum Bid Price Requirement (as defined below) or the Low Price Requirement (as defined below).

If shareholders approve this proposal, our Board will have the authority, but not the obligation, in its sole discretion and without further action on the part of the shareholders, to select one of the approved Reverse Stock Split ratios and effect the approved Reverse Stock Split by filing the Reverse Stock Split Amendment with the Secretary of State of the State of Florida at any time after the approval of the Reverse Stock Split Amendment. Even if our shareholders approve this proposal, our Board may determine in its discretion to abandon and not to effectuate the Reverse Stock Split. If the Reverse Stock Split Amendment has not been filed with the Department of State of the State of Florida by the close of business on May 2, 2026, the Board will abandon the Reverse Stock Split Amendment. If the Reverse Stock Split is implemented, there would be no change to the par value of a share of our Common Stock. The Reverse Stock Split will also affect then outstanding options and warrants.

Our Board believes that shareholder approval of an exchange ratio range (rather than an exact exchange ratio) provides the board with maximum flexibility to achieve the purposes of the Reverse Stock Split. The Reverse Stock Split will be effected, if at all, only upon a determination by the Board that the Reverse Stock Split is in the company's and the shareholders' best interests at that time. In connection with any determination to effect the Reverse Stock Split, the Board will set the time for such a split and select a specific ratio within the range. These determinations will be made by the Board with the intention to create the greatest marketability for our Common Stock based upon prevailing market conditions at that time.

Background

Our common stock is currently listed on the NYSE American under the symbol "OGEN." The continued listing requirements of the NYSE American provide, among other things, that our common stock must maintain a closing bid price in excess of \$1.00 per share (the "Minimum Bid Price Requirement"). Moreover, if the closing bid price of our common stock is \$0.10 or less for ten consecutive trading days (the "Low Price Requirement"), the NYSE American will provide notice that our common stock will be subject to delisting as set forth in Listing Rule 5810(c)(3)(A)(iii). We would then be entitled to appeal NYSE's determination, but there can be no assurance that the NYSE would grant our request for continued listing.

Our Board determined that the continued listing of our common stock on the NYSE American is beneficial for our shareholders. The delisting of our common stock from the NYSE American would likely have very serious consequences for us and our shareholders. If our common stock is delisted from the NYSE American, our Board believes that the trading market for our common stock could become significantly less liquid, which could reduce the trading price of our common stock and increase the transaction costs of trading in shares of our common stock.

Purpose and Effect of the Reverse Stock Split

The primary purpose for implementing the proposed Reverse Stock Split Amendment would be to increase the per share trading price of our Common Stock and decrease the number of outstanding shares of our Common Stock which our Board of Directors believes would help us:

- attract new investors who are reluctant to invest in shares with low prices;
- attract investment from certain institutional investors and investment funds who are presently prevented under their guidelines from investing in our stock at its current price levels; and

14

attract and retain employees who may be less likely to work for a company with a low stock price.

We are planning for our future financing needs, and the ability to attract such institutional investors may be important to the success of any capital raising efforts.

We believe that a higher per share price of our Common Stock will increase interest in our stock within the financial community and broaden the pool of investors that may consider investing in our stock. Both of these factors can potentially increase the trading volume and liquidity of our Common Stock. The Board has been advised that our low stock price actually prohibits some institutional investors from purchasing our stock because of minimum price per share requirements they observe.

Other Considerations.

In addition to the foregoing considerations, the Board considered that, as a matter of policy, many institutional investors will not purchase stocks trading below certain minimum price levels, and brokers often discourage their customers from purchasing such stocks. We believe that these concerns will be reduced if the price per share of our Common Stock increases.

A Reverse Stock Split may also reduce the relatively high transaction costs and commissions incurred by our shareholders due to our currently low per share trading price. The structure of trading commissions, when they are set at a fixed price per share, can have an adverse impact on holders of lower-priced securities because the brokerage commissions generally represent a higher percentage of the sales prices of lower-priced securities than they do on higher-priced issues, which may discourage trading in such lower-priced securities. If the price of our shares is higher, then the adverse impact of these commissions could be reduced.

Any increase in the liquidity of our Common Stock due to a higher price per share may be partially or entirely offset by a reduction in liquidity due to the fewer number of shares issued and outstanding after the Reverse Stock Split. Furthermore, the Reverse Stock Split will likely increase the number of Common Stock holdings that are not divisible by 100 (often referred to as "odd lots"), which may make these shares more difficult to sell and could result in higher selling costs for shareholders who hold odd

The Board believes that the potential positive effects of a Reverse Stock Split can outweigh the potential negative effects and intends to implement the proposed split only if they conclude that to be the case. In making that evaluation the Board will take into account various negative factors including: (i) the negative perception of Reverse Stock Splits held by some stock market participants; (ii) the adverse effect on liquidity that might be caused by a reduced number of shares outstanding; and (iii) the costs associated with implementing a Reverse Stock Split. The effect of the Reverse Stock Split upon the market price of our Common Stock cannot be predicted with any certainty,

and the history of similar stock splits for companies in similar circumstances to ours is varied. It is also possible that a Reverse Stock Split may not increase the per share price of our Common Stock in proportion to the reduction in the number of shares of our Common Stock outstanding or result in a permanent increase in the per share price, which depends on many factors.

After considering the foregoing factors, the Board determined that having the flexibility to implement a Reverse Stock Split is in our best interests and that of our shareholders. The Board reserves the right not to implement the Reverse Stock Split if the Board does not deem it to be in our best interests or that of our shareholders.

Our Board, in its sole discretion, may elect to effect any one (but not more than one) of the reverse split ratios within the range indicated after receipt of shareholder approval, or none of them if our Board of Directors determines in its sole discretion not to proceed with the Reverse Stock Split. We believe that the availability of the alternative reverse split ratios will provide the Board of Directors with the flexibility to implement the Reverse Stock Split in a manner designed to maximize the anticipated benefits for the Company and its shareholders. In determining which of the alternative Reverse Stock Split ratios to implement, if any, following the receipt of shareholder approval, our Board may consider, among other things, factors such as the trading price and trading volume of our Common Stock and the anticipated impact of the Reverse Stock Split on the trading market for our Common Stock.

The Board of Directors reserves its right to elect to abandon the Reverse Stock Split if it determines, in its sole discretion, that this proposal is no longer in the best interests of the company and its shareholders.

15

Impact of the Reverse Stock Split Amendment if Implemented

The Reverse Stock Split will not affect the number of authorized shares of common stock, which will remain 350,000,000, or preferred stock, which will remain at 50,000,000 Although the Reverse Stock Split will not, by itself, have any immediate dilutive effect on shareholders, the proportion of shares owned by shareholders relative to the number of shares authorized for issuance will decrease because the number of authorized shares of common stock would remain unchanged. As a result, additional authorized shares of common stock would become available for issuance at such times and for such purposes as our Board may deem advisable without further action by shareholders, except as required by applicable law or stock exchange rules. To the extent that additional authorized shares of common stock are issued in the future, such shares could be dilutive to our existing shareholders by decreasing such shareholders' percentage of equity ownership in us.

If implemented by our Board, the Reverse Stock Split will be realized simultaneously and in the same ratio for all of our outstanding Common Stock. The Reverse Stock Split will affect all holders of our Common Stock uniformly and will not affect any shareholder's percentage ownership interest in the company. We will not issue fractional shares in connection with the Reverse Stock Split. Instead, shareholders who otherwise would be entitled to receive fractional shares because they hold a number of shares not evenly divisible by the Reverse Stock Split ratio implemented will automatically be entitled to receive an additional fraction of a share of our Common Stock to round up to the next whole share. In addition, the Reverse Stock Split will not affect any shareholder's proportionate voting power (subject to the treatment of fractional shares).

The principal effects of the Reverse Stock Split Amendment will be that:

- depending on the ratio for the Reverse Stock Split selected by our Board, each five to fifty shares of Common Stock owned by a shareholder, or any whole number of shares of Common Stock between five and fifty as determined by the Board, will be combined into one new share of Common Stock;
- the number of authorized shares of Common Stock will remain at 350 million.
- based upon the Reverse Stock Split ratio selected by our Board of Directors, proportionate adjustments will be made to the per share exercise price and/or the number of shares issuable upon the exercise or conversion of all outstanding options, warrants, convertible or exchangeable securities entitling the holders to purchase, exchange for, or convert into, shares of Common Stock, which will result in approximately the same aggregate price being required to be paid for such options and warrants upon exercise immediately preceding the Reverse Stock Split;
- pursuant to the terms of the Certificates of Designation and Rights of the Company's Series F (the "Series F Preferred Stock"), the conversion price at which the issued and outstanding shares of Series F Preferred Stock may be converted into shares of Common Stock will be proportionately adjusted to reflect the Reverse Stock Split; and
- the number of shares reserved for issuance or pursuant to the securities or plans described in the immediately preceding bullet will be reduced proportionately based upon the Reverse Stock Split ratio selected by our Board.

The table below illustrates the effect, as of March 21, 2025, of a Reverse Stock Split at certain ratios:

	Current ⁽¹⁾	1:5	1:30	1:50
Common Stock Authorized	350,000,000	350,000,000	350,000,000	 350,000,000
Common Stock Issued and Outstanding	21,475,289	4,295,058	715,843	429,506
Number of Shares of Common Stock Reserved for Issuance ⁽²⁾	9,219,019	1,843,804	307,301	184,380
Number of Shares of Common Stock Authorized but Unissued				
and Unreserved	319,305,692	343,861,138	348,976,856	349,386,114
Price per share, based on the closing price of our Common				
Stock on March 21, 2025 ⁽³⁾	\$ 0.26	\$ 1.30	\$ 7.80	\$ 13.00

- (1) Data provided is as of March 21, 2025.
- (2) Includes (i) 993,753 stock options (ii) 736,574 warrants and (iii) 7,488,692 Series F Preferred Stock convertible into 7,488,692 shares of common stock.
- (3) The price per share indicated reflects solely the application of the applicable reverse split ratio to the closing price of the common stock on March 21, 2025.

16

Other principal effects of the Reverse Stock Split will include proportional adjustments to the per share exercise price and the number of shares issuable upon the exercise of all outstanding options and warrants and a proportional reduction in the number of shares reserved for issuance under our existing stock incentive plans.

Immediately following the effective time of the Reverse Stock Split, we will continue to have 50,000,000 authorized shares of preferred stock. Authorized but unissued shares will be available for issuance, and we may issue such shares in the future. If we issue additional shares of Common Stock, the percentage ownership interest of holders of our Common Stock will be diluted.

We do not intend for this Reverse Stock Split to constitute, or be the first step in a series of plans or proposals for, a "going private" transaction pursuant to Rule 13e-3 under the Securities Exchange Act of 1934. Following the Reverse Stock Split, we intend for our Common Stock to remain registered under the Securities Exchange Act of 1934 and to continue to comply with the reporting requirements of such Act.

Certain Risks Associated with the Reverse Stock Split

There are risks associated with the Reverse Stock Split including the following:

- If the Reverse Stock Split is effected and the market price of our Common Stock declines, the percentage decline may be greater than would occur in the absence of a Reverse Stock Split. The market price of our Common Stock will, however, also be based on performance and other factors, which are unrelated to the number of shares outstanding.
- There can be no assurance that the Reverse Stock Split will result in any particular price for our Common Stock. As a result, the trading liquidity of our Common Stock may not necessarily improve.
- There can be no assurance that the market price per share of our Common Stock after a Reverse Stock Split will increase in proportion to the reduction in the number of shares of our Common Stock outstanding before the Reverse Stock Split. For example, based on the closing price of our Common Stock on March 21, 2025 of \$0.26 per share, if the Reverse Stock Split were implemented and approved for a Reverse Stock Split ratio of one-for-ten, there can be no assurance that the post-split market price of our Common Stock would be \$2.70 or greater. Accordingly, the total market capitalization of our Common Stock after the Reverse Stock Split may be lower than the total market capitalization before the Reverse Stock Split. Moreover, in the future, the market price of our Common Stock following the Reverse Stock Split may not exceed or remain higher than the market price prior to the Reverse Stock Split.
- There can be no assurance the Reverse Stock Split would result in a price per share that will attract brokers and investors that do not trade in lower priced shares.
- There can be no assurance that the Reverse Stock Split would result in a per share price that would increase our ability to attract and retain employees.
- Because the number of issued and outstanding shares of Common Stock would decrease as result of the Reverse Stock Split, the number of authorized but unissued shares of Common Stock will increase on a relative basis. If we issue additional shares of Common Stock, the ownership interest of our current shareholders would be diluted, possibly substantially.
- The proportion of unissued authorized shares to issued shares could, under certain circumstances, have an anti-takeover effect. For example, the issuance of a large block of Common Stock could dilute the stock ownership of a person seeking to effect a change in the composition of the Board of Directors or contemplating a tender offer or other transaction for the combination of the company with another company.
- The Reverse Stock Split may result in some shareholders owning "odd lots" of less than 100 shares of Common Stock. Odd lot shares may be more difficult to sell, and brokerage commissions and other costs of transactions in odd lots are generally somewhat higher than the costs of transactions in "round lots" of even multiples of 100 shares.

17

Our Board of Directors intends to effect the Reverse Stock Split only if it believes that a decrease in the number of shares is likely to improve the trading price of our Common Stock and if the implementation of the Reverse Stock Split is determined by the Board of Directors to be in the best interests of the company and its shareholders.

Effective Time

If this proposal is approved and our Board determines to effect the Reverse Stock Split, the exact timing will be determined at the discretion of our Board and set forth in a public announcement. The proposed Reverse Stock Split would become effective as of 5:00 p.m., Eastern Time, (the "Effective Time") on the date of filing the Reverse Stock Split Amendment with the office of the Department of State of the State of Florida, which will be determined by our Board. Shares of our Common Stock issued and outstanding immediately prior thereto will be combined, automatically and without any action on the part of the shareholders, into one share of our Common Stock in accordance with the Reverse Stock Split ratio determined by our Board of Directors. Following the Reverse Stock Split, each certificate representing shares of our Common Stock will be deemed for all corporate purposes to evidence ownership of the number of whole shares into which the shares previously represented by the certificate were combined pursuant to the Reverse Stock Split.

After the Effective Time, our Common Stock will have new committee on uniform securities identification procedures ("CUSIP") numbers, which is a number used to identify our equity securities, and stock certificates with the older CUSIP numbers will need to be exchanged for stock certificates with the new CUSIP numbers by following the procedures described below.

After the Effective Time, we will continue to be subject to periodic reporting and other requirements of the Exchange Act.

Board Discretion to Implement the Reverse Stock Split Amendment

If the Reverse Stock Split is approved by our shareholders, it will be effected, if at all, only upon a determination by our Board of Directors that a Reverse Stock Split (at a ratio determined by the Board of Directors as described above) is in the best interests of the company and the shareholders. The Board of Director's determination as to whether the Reverse Stock Split will be effected and, if so, at what ratio, will be based upon certain factors, including existing and expected marketability and liquidity of our Common Stock, prevailing market conditions and the likely effect on the market price of our Common Stock. If our Board of Directors determines to effect the Reverse Stock Split, the Board of Directors will consider various factors in selecting the ratio including the overall market conditions at the time and the recent trading history of the Common Stock

Fractional Shares

Shareholders will not receive fractional post-Reverse Stock Split shares in connection with the Reverse Stock Split. Instead, shareholders who otherwise would be entitled to receive fractional shares because they hold a number of shares not evenly divisible by the Reverse Stock Split ratio implemented will automatically be entitled to receive an additional fraction of a share of our Common Stock to round up to the next whole share.

Effect on Beneficial Holders of Common Stock (i.e. shareholders who hold in "street name")

Upon the Reverse Stock Split, we intend to treat shares held by shareholders in "street name," through a bank, broker or other nominee, in the same manner as registered shareholders whose shares are registered in their names. Banks, brokers or other nominees will be instructed to effect the Reverse Stock Split for their beneficial holders holding our Common Stock in "street name". However, these banks, brokers or other nominees may have different procedures than registered shareholders for processing the Reverse Stock Split. If a shareholder holds shares of our Common Stock with a bank, broker or other nominee and has any questions in this regard, shareholders are encouraged to contact their bank, broker or other nominee.

Effect on Registered "Book-Entry" Holders of Common Stock (i.e. shareholders that are registered on the transfer agent's books and records but do not hold stock certificates)

Certain of our registered holders of Common Stock may hold some or all of their shares electronically in book-entry form with the transfer agent. These shareholders do not have stock certificates evidencing their ownership of the Common Stock. They are, however, provided with a statement reflecting the number of shares registered in their accounts.

If a shareholder holds registered shares in book-entry form with the transfer agent, no action needs to be taken to receive post-Reverse Stock Split shares. If a shareholder is entitled to post-Reverse Stock Split shares, a transaction statement will automatically be sent to the shareholder's address of record indicating the number of shares of Common Stock held following the Reverse Stock Split.

Effect on Certificated Shares

Shareholders holding shares of our Common Stock in certificate form will be sent a transmittal letter by the transfer agent after the Effective Time. The letter of transmittal will contain instructions on how a shareholder should surrender his or her certificate(s) representing shares of our Common Stock ("Old Certificates") to the transfer agent in exchange for certificates representing the appropriate number of whole shares of post-Reverse Stock Split Common Stock ("New Certificates"). No New Certificates will be issued to a shareholder until such shareholder has surrendered all Old Certificates, together with a properly completed and executed letter of transmittal, to the transfer agent. No shareholder will be required to pay a transfer or other fee to exchange his, her or its Old Certificates.

Shareholders will then receive a New Certificate(s) representing the number of whole shares of Common Stock which they are entitled as a result of the Reverse Stock Split. Until surrendered, we will deem outstanding Old Certificates held by shareholders to be cancelled and only to represent the number of whole shares of post-Reverse Stock Split Common Stock to which these shareholders are entitled.

Any Old Certificates submitted for exchange, whether because of a sale, transfer or other disposition of stock, will automatically be exchanged for new certificates. If an Old Certificate has a restrictive legend on the back of the Old Certificate(s), the New Certificate will be issued with the same restrictive legends that are on the back of the Old Certificate(s).

Shareholders should not destroy any stock certificate(s) and should not submit any stock certificate(s) until requested to do so.

Accounting Matters

The Reverse Stock Split will not affect the par value of a share of our Common Stock. As a result, as of the Effective Time of the Reverse Stock Split, the stated capital attributable to Common Stock on our balance sheet will be reduced proportionately based on the Reverse Stock Split ratio (including a retroactive adjustment of prior periods), and the additional paid-in capital account will be credited with the amount by which the stated capital is reduced. Reported per share net income or loss will be higher because there will be fewer shares of Common Stock outstanding.

No Appraisal Rights

Under the Florida Business Corporation Act, shareholders are not entitled to appraisal rights or dissenters rights with respect to the Reverse Stock Split, and we will not independently provide shareholders with any such right.

Certain U.S. Federal Income Tax Considerations of the Reverse Stock Split

The following summary describes, as of the date of this proxy statement, certain U.S. federal income tax consequences of the Reverse Stock Split to holders of our common stock. This summary addresses the tax consequences only to a U.S. holder, which is a beneficial owner of our common stock that is either:

• an individual citizen or resident of the United States;

19

- a corporation, or other entity taxable as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States or any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if: (i) a court within the United States is able to exercise primary jurisdiction over its administration and one or more U.S. persons has the authority to control all of its substantial decisions or (ii) it was in existence before August 20, 1996 and a valid election is in place under applicable Treasury regulations to treat such trust as a U.S. person for U.S. federal income tax purposes.

This summary is based on the provisions of the Internal Revenue Code of 1986, as amended (the **Code**"), U.S. Treasury regulations, administrative rulings and judicial authority, all as in effect as of the date of this proxy statement. Subsequent developments in U.S. federal income tax law, including changes in law or differing interpretations, which may be applied retroactively, could have a material effect on the U.S. federal income tax consequences of the Reverse Stock Split. We have not sought, and will not seek, an opinion of counsel or a ruling from the Internal Revenue Service regarding the U.S. federal income tax consequences of the Reverse Stock Split, and there can be no assurance that the Internal Revenue Service will not challenge the statements and conclusions set forth below or that a court would not sustain any such challenge.

This summary does not address all of the tax consequences that may be relevant to any particular investor, including tax considerations that arise from rules of general application to all taxpayers or to certain classes of taxpayers or that are generally assumed to be known by investors. This summary also does not address the tax consequences to (i) persons that may be subject to special treatment under U.S. federal income tax law, such as banks, insurance companies, thrift institutions, regulated investment companies, real estate investment trusts, tax-exempt organizations, certain former U.S. citizens and lawful permanent residents of the United States, persons subject to the alternative minimum tax, persons whose functional currency is not the U.S. dollar, partnerships or other pass-through entities (including S-corporations), traders in securities that elect to mark-to-market and dealers in securities or currencies, (ii) persons that hold our common stock as part of a position in a "straddle" or as part of a "hedging transaction," "conversion transaction" or other integrated investment transaction for federal income tax purposes, (iii) persons that do not hold our common stock as "capital assets" (generally, property held for investment), (iv) persons liable for the alternative minimum tax, (v) persons that directly, indirectly or constructively, own 5% or more of the total combined voting power of our stock or of the total value of our equity interests or (vi) persons that will hold shares of common stock in connection with a permanent establishment or fixed base outside the United States. This summary does not address backup withholding and information reporting. This summary does not address U.S. holders who beneficially own common stock through a "foreign financial institution" (as defined in Code Section 1471(d)(4)) or certain other non-U.S. entities specified in Code Section 1472. This summary does not address U.S. federal tax considerations arising under any U.S. state or local or non-U.S. laws. In a

If a partnership (or other entity classified as a partnership for U.S. federal income tax purposes) is the beneficial owner of our common stock, the U.S. federal income tax treatment of a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. **Partnerships that hold our common stock**,

and partners in such partnerships, should consult their own tax advisors regarding the U.S. federal income tax consequences of the Reverse Stock Split.

Each holder should consult his, her or its own tax advisors concerning the particular tax consequences of the Reverse Stock Split to them.

General Tax Treatment of the Reverse Stock Split

The Reverse Stock Split is intended to qualify as a "reorganization" under Section 368 of the Code that should constitute a "recapitalization" for U.S. federal income tax purposes. Assuming the Reverse Stock Split qualifies as a reorganization and other than with respect to a U.S. holder that receives a full share in lieu of a fractional share, as described below, a U.S. holder generally will not recognize gain or loss upon the exchange of our ordinary shares for a lesser number of ordinary shares, based upon the Reverse Stock Split ratio. A U.S. holder's aggregate tax basis in the lesser number of ordinary shares received in the Reverse Stock Split will be the same as such U.S. holder's aggregate tax basis in the shares of our common stock that such U.S. holder owned immediately prior to the Reverse Stock Split. The holding period for the ordinary shares received in the Reverse Stock Split will include the period during which a U.S. holder held the shares of our common stock that were surrendered in the Reverse Stock Split. The United States Treasury regulations provide detailed rules for allocating the tax basis and holding period of the shares of our common stock surrendered to the shares of our common stock received pursuant to the Reverse Stock Split. U.S. holders of shares of our common stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares.

20

As noted above, we will not issue fractional shares in connection with the Reverse Stock Split. Instead, shareholders who would be entitled to receive fractional shares because they hold a number of shares of common stock not evenly divisible by the Reverse Stock Split ratio will automatically be entitled to receive an additional fraction of a share of common stock to round up to the next whole share of common stock. The U.S. federal income tax consequences of the receipt of such an additional fraction of a share are not clear. A U.S. holder that receives a full share in lieu of a fractional share may recognize income as a deemed distribution or gain in an amount not to exceed the excess of the fair market value of such share over the fair market value of the fractional share to which such shareholder was otherwise entitled. We are not making any representations as to whether the receipt of one whole share in lieu of a fractional share will result in income as a deemed distribution or gain to any shareholder. U.S. holders are urged to consult their own tax advisors as to the possible tax consequences of receiving an additional fraction of a share in the Reverse Stock Split.

THE FOREGOING IS INTENDED ONLY AS A SUMMARY OF CERTAIN FEDERAL INCOME TAX CONSEQUENCES OF THE REVERSE STOCK SPLIT AND DOES NOT CONSTITUTE A TAX OPINION. EACH HOLDER OF OUR COMMON SHARES SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF THE REVERSE STOCK SPLIT TO THEM AND FOR REFERENCE TO APPLICABLE PROVISIONS OF THE CODE.

Required Vote and Recommendation

Proposal 4 (the Reverse Stock Split Proposal) requires affirmative vote of a majority of the shares represented in person or by Proxy and entitled to vote on such proposals at a meeting at which a quorum exists consisting of at least a majority of the shares entitled to be cast on such proposals. As discussed elsewhere in the Proxy Statement, the shares of Common Stock and Series G Mirroring Preferred Stock vote as a single class on this proposal. Since the Series G Mirroring Preferred Stock has 1,000 votes per share on the proposal and votes of the shares of Series G Mirroring Preferred Stock, when cast, are automatically voted in the same proportion as the shares of Common Stock that are voted on this proposal, shares of Common Stock affirmatively voted for the proposal will have the effect of causing the proportion of Series G Preferred Stock voted for the proposal to increase accordingly and, conversely, shares of Common Stock affirmatively voted against the proposal will have the effect of a vote against the Proposal, and broker non-votes will not be counted as a vote in favor of or a vote against the Proposal. If you sign and submit your proxy card without properly marking your voting instructions, your shares will be voted "FOR" this Proposal.

The Board of Directors unanimously recommends a vote "FOR" approval of this Proposal 4 to grant our Board of Directors authority to amend our Articles of Incorporation to effect a Reverse Stock Split prior to May 2, 2026 at a ratio between one-for-five and one-for-fifty.

2

PROPOSAL 5

INCREASE AUTHORIZED SHARES PROPOSAL

In the event our common stock falls below the Low Price Requirement prior to shareholder approval of the Reverse Stock Split Proposal, or in the event we are unable to obtain shareholder approval of the Reverse Stock Split Proposal, our Board may effect a Reverse Stock Split of our common stock pursuant to Florida Business Corporation Act Section 607.10025 (the "Board Reverse Stock Split") to regain compliance with the Low Price Requirement or the Minimum Bid Price Requirement. In the event that the Board Reverse Stock Split is effectuated by the Board prior to the date of the Annual Meeting, we would be required to promptly file with the Secretary of State of Florida an amendment to the Company Amended and Restated Articles of Incorporation, which would effectuate the Board Reverse Stock Split and also have the effect of amending our Articles of Incorporation to decrease the number of authorized shares of our common stock set forth therein, depending on the ratio approved by the Board for the Board Reverse Stock Split (the "Board Reverse Stock Split Ratio"), as follows:

	Current (1)	1:5	1:30	1:50
Common Stock Authorized	350,000,000	70,000,000	11.666.667	7.000.000

(1) Data provided is as of March 21, 2025.

In the event of a Board Reverse Stock Split as described above, our Board has approved, subject to shareholder approval, an amendment to our Articles of Incorporation to increase our authorized shares of common stock back up to 350,000,000 (the "Amendment"). The increase in our authorized shares of common stock would become effective upon the filing of the Amendment with the Florida Secretary of State. Approval of this proposal will grant our Board the authority, at its discretion, without further action by our shareholders, to file the Amendment. Even if our shareholders approve this proposal, our Board may determine in its discretion not to file the amendment to our Articles of Incorporation; however, if the Amendment is approved and we have effected a Board Reverse Stock Split prior to such approval, we intend to file the Amendment as soon as practicable following the Annual Meeting.

The form of the text of the Amendment (which would be filed with the Florida Secretary of State on its then prescribed form of Amendment to the Amended and Restated Articles of Incorporation) is set forth as **Appendix B** to this proxy statement (subject to any changes required by applicable law).

Outstanding Shares and Purpose of the Proposal

Our Articles of Incorporation currently authorizes us to issue a maximum of 350,000,000 shares of Common Stock, par value \$0.001 per share, and 50,000,000 shares of preferred stock. Our issued and outstanding securities, as of the Record Date and as adjusted for various potential Board Reverse Stock Split Ratios are as follows:

	Current ⁽¹⁾	1:5	1:30	1:50
Common Stock Authorized	350,000,000	70,000,000	11,666,667	7,000,000

Common Stock Issued and Outstanding	21,475,289	4,295,058	715,843	429,506
Number of Shares of Common Stock Reserved for Issuance ⁽²⁾	9,219,019	1,843,804	307,301	184,380
Number of Shares of Common Stock Authorized but Unissued				
and Unreserved	319,305,692	63,861,138	10,643,523	6,386,114
Price per share, based on the closing price of our Common				
Stock on March 21, 2025 ⁽³⁾	\$ 0.26	\$ 1.30	\$ 7.80	\$ 13.00

- (1) Data provided is as of March 21, 2025.
- (2) Includes (i) 993,753 stock options (ii) 736,574 warrants and (iii) 7,488,692 Series F Preferred Stock convertible into 7,488,692 shares of common stock.
- (3) The price per share indicated reflects solely the application of the applicable reverse split ratio to the closing price of the common stock on March 17, 2025.

The approval of the Amendment in the event of a Board Reverse Stock Split is important for the ongoing business of the Company. Without additional authorized shares of common stock, (i) the Company may not be able to raise additional financing which is needed to fund our ongoing clinical and research programs, (ii) the Company may not be able to attract and retain key employees, officers and directors, and (iii) the Company may not be able to make strategic acquisitions, although no such acquisitions are currently contemplated.

22

The increase in the number of authorized shares of common stock may be available for our Board to issue in future financings, to provide equity incentive to employees, officers and directors, to make stock-based acquisitions and for other general corporate purposes, and we intend to use the additional shares of common stock that will be available to undertake any such issuances. We have no specific plan, commitment, arrangement, understanding or agreement, either oral or written, regarding the issuance of common stock subsequent to this proposed increase in the number of authorized shares at this time, and we have not allocated any specific portion of the proposed increase in the authorized number of shares to any particular purpose. The Company is therefore requesting its shareholders approve this proposal to amend its Articles of Incorporation to increase the authorized shares of common stock in the event of a Board Reverse Stock Split.

Rights of Additional Authorized Shares

Any authorized shares of common stock, if and when issued, would be part of our existing class of common stock and would have the same rights and privileges as the shares of common stock currently outstanding. Our shareholders do not have pre-emptive rights with respect to the common stock, nor do they have cumulative voting rights. Accordingly, should the Board issue additional shares of common stock, existing shareholders would not have any preferential rights to purchase any of such shares, and their percentage ownership of our then outstanding common stock could be reduced.

Potential Adverse Effects of Increase in Authorized Common Stock

Future issuances of common stock or securities convertible into common stock could have a dilutive effect on our earnings per share, book value per share and the voting power and ownership interest of current shareholders. The additional shares of common stock for which authorization is sought in this proposal would be part of the existing class of common stock and, if and when issued, would have the same rights and privileges as the shares of common stock presently outstanding. We could also use the additional shares of common stock that will become available for issuance to oppose a hostile takeover attempt or to delay or prevent changes in control or management of the Company. For example, it may be possible for the Board of Directors to delay or impede a takeover or transfer of control of the Company by causing such additional authorized shares to be issued to holders who might side with the Board of Directors in opposing a takeover bid that the Board of Directors determines is not in the best interests of the Company or its shareholders. The proposed increase in authorized shares of common stock therefore may have the effect of discouraging unsolicited takeover attempts. By potentially discouraging initiation of any such unsolicited takeover attempts, the proposed increase in authorized shares of common stock may limit the opportunity for the Company's shareholders to dispose of their shares at the higher price generally available in takeover attempts or that may be available under a merger proposal. The proposed increase in authorized shares of common stock may have the effect of permitting the Company's current management, including the current Board of Directors, to retain its position, and place it in a better position to resist changes that shareholders may wish to make if they are dissatisfied with the conduct of the Company's business. The Board is not aware of any attempt, or contemplated attempt, to acquire control of the Company, nor is this proposal being presented with the intent that it be use

Vote Required and Board Recommendation

Proposal 5 (the Increase in Authorized Shares Proposal) requires affirmative vote of a majority of the shares represented in person or by Proxy and entitled to vote on such proposals at a meeting at which a quorum exists consisting of at least a majority of the shares entitled to be cast on such proposals. As discussed elsewhere in the Proxy Statement, the shares of Common Stock and Series G Mirroring Preferred Stock vote as a single class on this proposal. Since the Series G Mirroring Preferred Stock has 1,000 votes per share on the proposal and votes of the shares of Series G Mirroring Preferred Stock, when cast, are automatically voted in the same proportion as the shares of Common Stock that are voted on this proposal, shares of Common Stock affirmatively voted for the proposal will have the effect of causing the proportion of Series G Preferred Stock voted against the proposal to increase accordingly and, conversely, shares of Common Stock affirmatively voted against the proposal will have the effect of a vote against the Proposal, and broker non-votes will not be counted as a vote in favor of or a vote against the Proposal. If you sign and submit your proxy card without properly marking your voting instructions, your shares will be voted "FOR" this Proposal.

The Board unanimously recommends a vote "FOR" Proposal 5 to Increase Authorized Shares of Common Stock.

23

PROPOSAL 6 INCENTIVE PLAN AMENDMENT PROPOSAL

Our Board of Directors, based on the recommendation of our Compensation Committee, has approved a second amendment to the Company's 2021 Equity Incentive Plan (the "2021 Equity Incentive Plan"), subject to approval by our shareholders at the Annual Meeting, to increase the number of common shares available for issuance under the 2021 Equity Incentive Plan from 3,166,667 shares of Common Stock, as reduced by any Reverse Stock Split, back up to 3,166,667 shares of Common Stock after the implementation and contingent on the effectuation of the Reverse Stock Split (the "Plan Amendment").

Why We Are Asking Our Shareholders to Approve the Plan Amendment to Increase the Number of Shares of Common Stock Available Under the 2021 Equity Incentive Plan?

We maintain the 2021 Equity Incentive Plan to grant equity awards to our employees, non-employee directors and consultants. Currently, the total number of shares available for grant under the 2021 Equity Incentive Plan is 3,166,667 new shares, plus (ii) the number of shares remaining available for the grant of new awards under the 2012 Plan as of immediately prior to the effective date of the 2021 Equity Incentive Plan, and plus (iii) certain shares subject to outstanding awards granted under the 2012 Plan that may become available for issuance under the 2021 Equity Incentive Plan, as such shares become available from time to time.

If a Reverse Stock Split is enacted, the number of shares issued and the number of shares reserved for issuance under the 2021 Equity Incentive Plan will be reduced

proportionately based upon the Reverse Stock Split ratio selected by our Board of Directors"), as follows:

	Current (1)	1:5	1:30	1:50
Common Stock Authorized under 2021 Plan	3,166,667	633,333	105,556	63,333

Thus, we are seeking shareholder approval of the Plan Amendment to increase the number of shares available for the grant of stock options, restricted stock unit awards and other awards back up to 3,166,667, which will enable us to have a competitive equity incentive program to compete with our peer group for key talent. Approval of the Plan Amendment by our shareholders will allow us to grant stock options, restricted stock unit awards and other awards at levels determined appropriate by the Board of Directors or Compensation Committee. The 2021 Equity Incentive Plan will also allow us to utilize a broad array of equity incentives in order to secure and retain the services of our employees, non-employee directors and consultants, and to provide long-term incentives that align the interests of our employees, non-employee directors and consultants with the interests of our shareholders.

If a Reverse Stock Split is not enacted, the Company will not seek to increase the shares available for issuance under the 2021 Equity Incentive Plan.

Requested Shares

If this PROPOSAL 6 is approved by our shareholders, then subject to adjustment for certain changes in our capitalization, the aggregate number of shares of our Common Stock that may be issued under the 2021 Equity Incentive Plan will not exceed the sum of (i) 3,166,667 new shares, (ii) the number of shares remaining available for the grant of new awards under the 2012 Plan as of immediately prior to the effective date of the 2021 Equity Incentive Plan, and (iii) certain shares subject to outstanding awards granted under the 2012 Plan that may become available for issuance under the 2021 Equity Incentive Plan, as such shares become available from time to time (as further described below in "Description of the 2021 Equity Incentive Plan—Shares Available for Awards").

Shareholder Approval

If this PROPOSAL 6 is approved by our shareholders, the Plan Amendment will become effective after the Reverse Stock Split is enacted. In the event that our shareholders do not approve this PROPOSAL 6, or the Reverse Stock Split is not enacted, the Plan Amendment will not become effective.

24

Why You Should Vote to Approve the Plan Amendment

Equity Awards Are an Important Part of Our Compensation Philosophy

The Board of Directors believes that the grant of equity awards is a key element underlying our ability to attract, retain and motivate our employees, non-employee directors and consultants because of the strong competition for highly trained and experienced individuals among biopharmaceutical companies. Therefore, the Board of Directors believes that the 2021 Equity Incentive Plan and the Plan Amendment is in the best interests of our business and our shareholders and recommends a vote in favor of this PROPOSAL 6.

The 2021 Equity Incentive Plan, as amended by the Plan Amendment, will allow us to continue to utilize equity awards as long-term incentives to secure and retain the services of our employees, non-employee directors and consultants, consistent with our compensation philosophy and common compensation practice for our industry. To date, equity awards have been a key aspect of our program to attract and retain key employees, non-employee directors and consultants. We believe the use of equity awards strongly aligns the interests of our employees with those of our shareholders by placing a considerable proportion of our employees' total compensation "at risk" because it is contingent on the appreciation in value of our Common Stock. In addition, we believe equity awards encourage employee ownership of our Common Stock and promote retention through the reward of long-term Company performance.

We Carefully Manage the Use of Equity Awards and Dilution is Reasonable

We recognize that equity awards dilute existing shareholders, and, therefore, we are mindful to responsibly manage the growth of our equity compensation program. We are committed to effectively monitoring our equity compensation share reserve, including our "burn rate," to ensure that we maximize shareholders' value by granting the appropriate number of equity awards necessary to attract, reward, and retain employees, non-employee directors and consultants.

The Size of Our Share Reserve Request Is Reasonable

If this PROPOSAL 6 is approved by our shareholders, we will have up to 3,103,334 new shares available for grant after the Annual Meeting, depending on the Reverse Stock Split ratio selected by our Board of Directors, subject to adjustment for certain changes in our capitalization.

The 2021 Equity Incentive Plan Combines Compensation and Governance Best Practices

The 2021 Equity Incentive Plan includes provisions that are designed to protect our shareholders' interests and to reflect corporate governance best practices, including:

Shareholder approval is required for additional shares. The 2021 Equity Incentive Plan does not contain an annual "evergreen" provision. The 2021 Equity Incentive Plan authorizes a fixed number of shares, so that shareholder approval is required to issue any additional shares.

Fungible share counting. The 2021 Equity Incentive Plan contains a "fungible share counting" structure, whereby the number of shares of our Common Stock available for issuance under the 2021 Equity Incentive Plan will be reduced by (i) one share for each share issued pursuant to a stock option or stock appreciation right with an exercise price that is at least 100% of the fair market value of our Common Stock on the date of grant (an "Appreciation Award") granted under the 2021 Equity Incentive Plan and (ii) 1.20 shares for each share issued pursuant to an award that is not an Appreciation Award (a "Full Value Award") granted under the 2021 Equity Incentive Plan. As part of such fungible share counting structure, the number of shares of our Common Stock available for issuance under the 2021 Equity Incentive Plan subject to an Appreciation Award and (ii) 1.20 shares for each share that becomes available again for issuance under the terms of the 2021 Equity Incentive Plan subject to a Full Value Award.

Repricing is not allowed. The 2021 Equity Incentive Plan prohibits the repricing of outstanding stock options and stock appreciation rights, and the cancellation of any outstanding stock options or stock appreciation rights that have an exercise or strike price greater than the then-current fair market value of our Common Stock in exchange for cash or other stock awards under the 2021 Equity Incentive Plan, without prior shareholder approval.

Limit on non-employee director compensation. The aggregate value of the equity awards which will be granted to any individual for service as a non-employee director under the 2021 Equity Incentive Plan during any single calendar year will not exceed equity awards with a value of \$300,000 or, for the first year a non-employee director is appointed or elected to the Board of Directors, equity awards not exceeding \$500,000 in total value. For purposes of these limitations, the value of any equity awards is calculated based on the grant date fair value of such awards for financial reporting purposes.

Restrictions on dividends and dividend equivalents. The 2021 Equity Incentive Plan provides that (i) no dividends may be paid with respect to any shares of our Common Stock subject to an award before the date such shares have vested, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of the applicable award agreement (including any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to us on the date such shares are forfeited to or repurchased by us due to a failure to vest.

Awards subject to forfeiture/clawback. Awards granted under the 2021 Equity Incentive Plan will be subject to recoupment in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law, and any other clawback policy that the Company adopts. In addition, the Board may impose other clawback, recovery or recoupment provisions in an award agreement, including a reacquisition right in respect of previously acquired shares or other cash or property upon the occurrence of cause.

Termination of stock options and stock appreciation rights on a participant's termination for cause. If a participant's service is terminated for cause, as defined under the 2021 Equity Incentive Plan, the participant's stock options and stock appreciation rights terminate immediately, and the participant is prohibited from exercising his or her stock options and stock appreciation rights.

No liberal change in control definition. The change in control definition in the 2021 Equity Incentive Plan is not a "liberal" definition. A change in control transaction must actually occur in order for the change in control provisions in the 2021 Equity Incentive Plan to be triggered.

No accelerated vesting of assumed awards upon change in control. The 2021 Equity Incentive Plan does not provide for accelerated vesting of awards that are assumed by an acquirer upon a change in control.

Material amendments require shareholder approval. Consistent with the applicable stock exchange rules, the 2021 Equity Incentive Plan requires shareholder approval of any material revisions to the 2021 Equity Incentive Plan. In addition, certain other amendments to the 2021 Equity Incentive Plan require shareholder approval.

Description of the 2021 Equity Incentive Plan

The material features of the 2021 Equity Incentive Plan are described below. The following description of the 2021 Equity Incentive Plan is a summary only and is qualified in its entirety by reference to the complete text of the 2021 Equity Incentive Plan. Shareholders are urged to read the actual text of the 2021 Equity Incentive Plan in its entirety, which was filed as Exhibit 10.16 to our Annual Report on Form 10-K for the year ended December 31, 2024 and which we filed with the SEC on March 14, 2025.

Purpose

The 2021 Equity Incentive Plan is designed to secure and retain the services of our employees, non-employee directors and consultants, to provide incentives for such persons to exert maximum efforts for the success of the Company and our affiliates, and to provide a means by which such persons may be given an opportunity to benefit from increases in the value of our Common Stock. The 2021 Equity Incentive Plan is also designed to align employees' interests with shareholder interests.

26

Successor to Prior Plans

The 2021 Equity Incentive Plan is the successor to the Company's 2012 Equity Incentive Plan, as amended to date.

Types of Awards

The terms of the 2021 Equity Incentive Plan provide for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance awards, and other awards.

${\it Shares\ Available\ for\ Awards}$

Subject to adjustment for certain changes in our capitalization, as amended by the Plan Amendment, the aggregate number of shares of our Common Stock that may be issued under the 2021 Equity Incentive Plan will not exceed the sum of (i) 3,166,667 shares, (ii) the number of shares remaining available for the grant of new awards under the 2012 Plan as of immediately prior to the effective date of the 2021 Equity Incentive Plan and (iii) the 2012 Plan's Returning Shares (as defined below), as such shares become available from time to time.

The "2012 Plan's Returning Shares" are shares of our Common Stock subject to outstanding awards granted under the Prior Plan that on or following the effective date of the 2021 Equity Incentive Plan: (i) are not issued because such award or any portion thereof expires or otherwise terminates without all of the shares covered by such award having been issued; (ii) are not issued because such award or any portion thereof is settled in cash; (iii) are forfeited back to or repurchased by us because of the failure to meet a contingency or condition required for the vesting of such shares, (iv) are withheld or reacquired by us to satisfy the exercise, strike or purchase price; or (v) are withheld or reacquired by us to satisfy a tax withholding obligation.

The number of shares of our Common Stock available for issuance under the 2021 Equity Incentive Plan will be reduced by (i) one share for each share of our Common Stock issued pursuant to an Appreciation Award (i.e., a stock option or stock appreciation right with an exercise or strike price of at least 100% of the fair market value of the underlying Common Stock on the date of grant), and (ii) 1.20 shares for each share of our Common Stock issued pursuant to a Full Value Award (i.e., an award that is not an Appreciation Award).

The following actions will not result in an issuance of shares of our Common Stock under the 2021 Equity Incentive Plan and accordingly will not reduce the number of shares of our Common Stock available for issuance under the 2021 Equity Incentive Plan: (i) the expiration or termination of any portion of an award granted under the 2021 Equity Incentive Plan without the shares covered by such portion of the award having been issued; (ii) the settlement of any portion of an award granted under the 2021 Equity Incentive Plan in cash; (iii) the withholding of shares to satisfy the exercise or strike price of an Appreciation Award; or (iv) the withholding of shares to satisfy a tax withholding obligation in connection with an Appreciation Award.

If any shares of our Common Stock issued pursuant to an award granted under the 2021 Equity Incentive Plan are (i) forfeited back to or repurchased by us because of the failure to meet a contingency or condition required for the vesting of such shares or if any shares; (ii) reacquired by us to satisfy the exercise or strike price of an Appreciation Award; or (iii) reacquired by us to satisfy a tax withholding obligation in connection with an Appreciation Award, then such shares will become available again for issuance under the 2021 Equity Incentive Plan. For each share subject to a Full Value Award, the number of shares of our Common Stock available for issuance under the 2021 Equity Incentive Plan will increase by 1.20 shares.

Any shares of our Common Stock reacquired or withheld (or not issued) by us to satisfy the purchase price of a Full Value Award will no longer be available for issuance under the 2021 Equity Incentive Plan, including any shares subject to a Full Value Award that are not delivered to a participant because such Full Value Award is settled through a reduction of shares subject to such Full Value Award. In addition, any shares reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with a Full Value Award, or any shares repurchased by us on the open market with the proceeds from the purchase price of a Full Value Award will no longer be available for issuance under the Plan.

27

Eligibility

All of our employees (including our affiliates), non-employee directors and consultants are eligible to participate in the 2021 Equity Incentive Plan and may receive all types of awards other than incentive stock options. Incentive stock options may be granted under the 2021 Equity Incentive Plan only to our employees (including our affiliates).

Administration

The 2021 Equity Incentive Plan will be administered by the Compensation Committee of our Board of Directors, which may in turn delegate some or all of the administration of the 2021 Equity Incentive Plan to a committee or committees composed of members of the Board of Directors. Our Board of Directors has assigned the authority to administer the 2021 Equity Incentive Plan to our Compensation Committee, but may, at any time, re-vest in itself some or all of the power delegated to our Compensation Committee. Our Compensation Committee is considered to be a Plan Administrator for purpose of this PROPOSAL 6.

Subject to the terms of the 2021 Equity Incentive Plan, the Plan Administrator may determine the recipients, the types of awards to be granted, the number of shares of our Common Stock subject to or the cash value of awards, and the terms and conditions of awards granted under the 2021 Equity Incentive Plan, including the period of their exercisability and vesting. The Plan Administrator also has the authority to provide for accelerated exercisability and vesting of awards. Subject to the limitations set forth below, the Plan Administrator also determines the fair market value applicable to an award and the exercise or strike price of stock options and stock appreciation rights granted under the 2021 Equity Incentive Plan.

The Plan Administrator may also delegate to one or more executive officers the authority to designate employees who are not executive officers to be recipients of certain awards and the number of shares of our Common Stock subject to such awards. Under any such delegation, the Plan Administrator will specify the total number of shares of our Common Stock that may be subject to the awards granted by such executive officer. The executive officer may not grant an award to himself or herself.

Repricing; Cancellation and Re-Grant of Stock Options or Stock Appreciation Rights

Under the 2021 Equity Incentive Plan, unless our shareholders have approved such an action within 12 months prior to such an event, the Plan Administrator does not have the authority to reprice any outstanding stock option or stock appreciation right by (1) reducing the exercise or strike price of the stock option or stock appreciation right or (2) cancelling any outstanding stock option or stock appreciation right that has an exercise or strike price greater than the then-current fair market value of our Common Stock in exchange for cash or other awards.

Dividends

The 2021 Equity Incentive Plan provides that (i) no dividends may be paid with respect to any shares of our Common Stock subject to an award before the date such shares have been issued, (ii) no dividend equivalents may be paid with respect to any shares of our Common Stock subject to a restricted stock unit award before the date such award has become vested, (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of the applicable award agreement (including any vesting conditions), and (iv) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to us on the date such shares are forfeited to or repurchased by us due to a failure to vest. Subject to the foregoing, the 2021 Equity Incentive Plan further provides that dividends or dividend equivalents may be paid or credited to shares of our Common Stock subject to a restricted stock award or restricted stock unit award granted under the 2021 Equity Incentive Plan, as determined by the Plan Administrator and specified in the applicable award agreement.

Limit on Non-Employee Director Compensation

The terms of the 2021 Equity Incentive Plan will permit annual equity awards to any individual for service as a non-employee director of the Company. As part of the Company's Director Compensation Program, each non-employee director receives an annual equity award. For this purpose, the value of any equity awards is calculated based on the grant date fair value of such awards for financial reporting purposes. Directors are subject to vesting provided that the recipient remains a director of the Company through the vesting date. The Board retains the discretion to modify the equity awards provided to non-employee directors under the terms of the Company's Director Compensation Program.

28

Stock Options

Stock options may be granted under the 2021 Equity Incentive Plan pursuant to stock option agreements. The 2021 Equity Incentive Plan permits the grant of stock options that are intended to qualify as incentive stock options, or ISOs, and nonstatutory stock options, or NSOs.

The exercise price of a stock option granted under the 2021 Equity Incentive Plan may not be less than 100% of the fair market value of the Common Stock subject to the stock option on the date of grant and, in some cases (see "Limitations on Incentive Stock Options" below), may not be less than 110% of such fair market value.

The term of stock options granted under the 2021 Equity Incentive Plan may not exceed ten years from the date of grant and, in some cases (see—Limitations on Incentive Stock Options" below), may not exceed five years from the date of grant. Except as otherwise provided in a participant's stock option agreement or other written agreement with us or one of our affiliates, if a participant's service relationship with us or any of our affiliates (referred to in this PROPOSAL 6 as "continuous service") terminates (other than for cause or the participant's death or disability, as defined in the 2021 Equity Incentive Plan), the participant may exercise any vested stock options for up to three months following the participant's termination of continuous service. Except as otherwise provided in a participant's stock option agreement or other written agreement with us or one of our affiliates, if a participant's continuous service terminates due to the participant's disability, the participant's stock option agreement or other written agreement with us or one of our affiliates, if a participant's continuous service terminates due to the participant's death (or the participant dies within a specified period following termination of continuous service), the participant's beneficiary may exercise any vested stock options for up to 18 months following the participant's death.

Except as explicitly provided otherwise in a participant's stock option agreement or other written agreement with us or one of our affiliates, if a participant's continuous service is terminated for cause, all stock options held by the participant will terminate upon the participant's termination of continuous service and the participant will be prohibited from exercising any stock option from and after such termination date. For this purpose, the term "cause" is defined in the 2021 Equity Incentive Plan to mean any event which would qualify as cause for termination under the participant's employment agreement with the Company, or, if there is no such employment agreement, any of the following (i) the commission of an act of fraud, embezzlement, theft or proven dishonesty, or any other illegal act or practice (whether or not resulting in criminal

prosecution or conviction), including theft or destruction of property of the Company or a subsidiary, or any other act or practice which the Committee shall, in good faith, deem to have resulted in the recipient's becoming unbondable under the Company or any subsidiary's fidelity bond; (ii) the willful engaging in misconduct which is deemed by the Committee, in good faith, to be materially injurious to the Company or any subsidiary, monetarily or otherwise, including, but not limited to, improperly disclosing trade secrets or other confidential or sensitive business information and data about the Company or any subsidiaries and competing with the Company or any subsidiaries, or soliciting employees, consultants or customers of the Company or any subsidiaries in violation of law or any employment or other agreement to which the recipient is a party; (iii) the continued failure or habitual neglect by a person who is an participant to perform his or her duties with the Company or any subsidiary; or (iv) other disregard of rules or policies of the Company or any subsidiary, or conduct evidencing willful or wanton disregard of the interests of the Company or any subsidiary.

Except as otherwise provided in a participant's stock option agreement or other written agreement with us or one of our affiliates, the term of a stock option may be extended if a participant's continuous service terminates for any reason other than for cause and, at any time during the last 30 days of the applicable post-termination exercise period, the exercise of the stock option would be prohibited by applicable laws or the sale of any Common Stock received upon such exercise would violate our insider trading policy. In no event, however, may a stock option be exercised after its original expiration date.

Acceptable forms of consideration for the purchase of our Common Stock pursuant to the exercise of a stock option under the 2021 Equity Incentive Plan will be determined by the Plan Administrator and may include payment: (i) by cash, check, bank draft or money order payable to us; (ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board; (iii) by delivery to us of shares of our Common Stock (either by actual delivery or attestation); (iv) by a net exercise arrangement (for NSOs only); or (v) in other legal consideration approved by the Plan Administrator.

29

Stock options granted under the 2021 Equity Incentive Plan may become exercisable in cumulative increments, or "vest," as determined by the Plan Administrator at the rate specified in the stock option agreement. Shares covered by different stock options granted under the 2021 Equity Incentive Plan may be subject to different vesting schedules as the Plan Administrator may determine.

The Plan Administrator may impose limitations on the transferability of stock options granted under the 2021 Equity Incentive Plan in its discretion. Generally, a participant may not transfer a stock option granted under the 2021 Equity Incentive Plan other than by will or the laws of descent and distribution or, subject to approval by the Plan Administrator, pursuant to a domestic relations order. However, the Plan Administrator may permit transfer of a stock option in a manner that is not prohibited by applicable tax and securities laws. Options may not be transferred to a third party financial institution for value.

Limitations on Incentive Stock Options

In accordance with current federal tax laws, the aggregate fair market value, determined at the time of grant, of shares of our Common Stock with respect to ISOs that are exercisable for the first time by a participant during any calendar year under all of our stock plans may not exceed \$100,000. The stock options or portions of stock options that exceed this limit or otherwise fail to qualify as ISOs are treated as NSOs. No ISO may be granted to any person who, at the time of grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power unless the following conditions are satisfied:

- the exercise price of the ISO must be at least 110% of the fair market value of the Common Stock subject to the ISO on the date of grant; and
- the term of the ISO must not exceed five years from the date of grant.

Subject to adjustment for certain changes in our capitalization, the aggregate maximum number of shares of our Common Stock that may be issued pursuant to the exercise of ISOs under the 2021 Equity Incentive Plan is 3,166,667 shares.

Stock Appreciation Rights

Stock appreciation rights may be granted under the 2021 Equity Incentive Plan pursuant to stock appreciation right agreements. Each stock appreciation right is denominated in Common Stock share equivalents. The strike price of each stock appreciation right will be determined by the Plan Administrator, but will in no event be less than 100% of the fair market value of the Common Stock subject to the stock appreciation right on the date of grant. The term of stock appreciation rights granted under the 2021 Equity Incentive Plan may not exceed ten years from the date of grant. The Plan Administrator may also impose restrictions or conditions upon the vesting of stock appreciation rights that it deems appropriate. The appreciation distribution payable upon exercise of a stock appreciation right may be paid in shares of our Common Stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the stock appreciation right agreement. Stock appreciation rights will be subject to the same conditions upon termination of continuous service and restrictions on transfer as stock options under the 2021 Equity Incentive Plan.

Restricted Stock Awards

Restricted stock awards may be granted under the 2021 Equity Incentive Plan pursuant to restricted stock award agreements. A restricted stock award may be granted in consideration for cash, check, bank draft or money order payable to us, the participant's services performed for us, or any other form of legal consideration acceptable to the Plan Administrator. Shares of our Common Stock acquired under a restricted stock award may be subject to forfeiture to or repurchase by us in accordance with a vesting schedule to be determined by the Plan Administrator. Rights to acquire shares of our Common Stock under a restricted stock award may be transferred only upon such terms and conditions as are set forth in the restricted stock award agreement. Upon a participant's termination of continuous service for any reason, any shares subject to restricted stock awards held by the participant that have not vested as of such termination date may be forfeited to or repurchased by us.

30

Restricted Stock Unit Awards

Restricted stock unit awards may be granted under the 2021 Equity Incentive Plan pursuant to restricted stock unit award agreements. Payment of any purchase price may be made in any form of legal consideration acceptable to the Plan Administrator. A restricted stock unit award may be settled by the delivery of shares of our Common Stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the restricted stock unit award agreement. Restricted stock unit awards may be subject to vesting in accordance with a vesting schedule to be determined by the Plan Administrator. Except as otherwise provided in a participant's restricted stock unit award agreement or other written agreement with us, restricted stock units that have not vested will be forfeited upon the participant's termination of continuous service for any reason.

Performance Awards

The 2021 Equity Incentive Plan allows us to grant performance awards. A performance award is an award that may vest or may be exercised, or that may become earned and paid, contingent upon the attainment of pre-determined performance goals during a performance period. A performance award may require the completion of a specified period of continuous service. The length of any performance period, the performance goals to be achieved during the performance period, and the measure of whether and to what degree such performance goals have been attained will be determined by the Plan Administrator in its discretion. In addition, to the extent permitted by applicable law and the applicable award agreement, the Plan Administrator may determine that cash may be used in payment of performance awards.

Performance goals under the 2021 Equity Incentive Plan are, for a performance period, the one or more goals established by the Plan Administrator for the performance period based upon the performance criteria that the Plan Administrator will select.

Performance goals may be based on a Company-wide basis, with respect to one or more business units, divisions, affiliates or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Plan Administrator (i) in the award agreement at the time the award is granted or (ii) in such other document setting forth the performance goals at the time the performance goals are established, the Plan Administrator will appropriately make adjustments in the method of calculating the attainment of the performance goals for a performance period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated performance goals; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by us achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of our Common Stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common shareholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under our bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; and (12) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the U.S. Food and Drug Administration or any other regulatory body. In addition, the Plan Administrator retains the discretion to define the manner of calculating the performance criteria it selects to use for a performance period and to reduce or eliminate the compensation or economic benefit due upon the attainment of any performance goal.

Other Awards

Other forms of awards valued in whole or in part by reference to, or otherwise based on, our Common Stock may be granted either alone or in addition to other awards under the 2021 Equity Incentive Plan. Subject to the terms of the 2021 Equity Incentive Plan, the Plan Administrator will have sole and complete authority to determine the persons to whom and the time or times at which such other awards will be granted, the number of shares of our Common Stock to be granted and all other terms and conditions of such other awards.

31

Clawback Policy

Awards granted under the 2021 Equity Incentive Plan will be subject to recoupment in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law, and any other clawback policy that the Company adopts. In addition, the Board of Directors may impose other clawback, recovery or recoupment provisions in an award agreement, including a reacquisition right in respect of previously acquired shares or other cash or property upon the occurrence of cause.

Changes to Capital Structure

In the event of certain capitalization adjustments, the Plan Administrator will appropriately and proportionately adjust: (i) the class(es) and maximum number of shares of our Common Stock subject to the 2021 Equity Incentive Plan; (ii) the class(es) and maximum number of shares of our Common Stock that may be issued pursuant to the exercise of ISOs; and (iii) the class(es) and number of shares of our Common Stock and the exercise, strike or purchase price per share of our Common Stock subject to outstanding awards.

Corporate Transaction

The following applies to each outstanding award under the 2021 Equity Incentive Plan in the event of a corporate transaction (as defined in the 2021 Equity Incentive Plan and described below), unless provided otherwise in the applicable award agreement, in any other written agreement between a participant and the Company, or in any director compensation policy of the Company. For purposes of this Proposal 6, the term "Transaction" will mean such corporate transaction.

In the event of a Transaction, any awards outstanding under the 2021 Equity Incentive Plan may be assumed, continued or substituted for by any surviving or acquiring corporation (or its parent company) (such entity, the "acquiring entity"), and any reacquisition or repurchase rights held by us with respect to the award may be assigned to the acquiring entity. If the acquiring entity does not assume, continue or substitute for such awards, then with respect to any such awards that are held by participants who are employees or non-employee directors and, in each case, whose continuous service has not terminated prior to the effective time of the Odyssey Asset Purchase (such participants, the "current employee and director participants"), the vesting (and exercisability, if applicable) of such awards will be accelerated in full (and with respect to any such awards that are subject to performance-based vesting conditions or requirements, vesting will be deemed to be satisfied at the target level of performance as of the date of the Odyssey Asset Purchase) to a date prior to the effective time of the Odyssey Asset Purchase (contingent upon the effectiveness of the Odyssey Asset Purchase), and such awards will terminate if not exercised (if applicable) at or prior to the effective time of the Odyssey Asset Purchase, and any reacquisition or repurchase rights held by us with respect to such awards will terminate if not exercised (if applicable) at or prior to the effective time of the Odyssey Asset Purchase, except that any reacquisition or repurchase rights held by us with respect to such awards will not terminate and may continue to be exercised notwithstanding the Odyssey Asset Purchase.

In the event an award will terminate if not exercised at or prior to the effective time of a Transaction, the Plan Administrator may provide that the holder of such award may not exercise such award but instead will receive a payment equal in value to the excess, if any, of (i) the value of the property the participant would have received upon the exercise of the award, over (ii) any exercise price payable by such holder in connection with such exercise.

Under the 2021 Equity Incentive Plan, a "corporate transaction" generally means the consummation of any one or more of the following events: (1) a sale or other disposition of all or substantially all of our assets; (2) a sale or other disposition of at least 50% of our outstanding securities; (3) a merger, consolidation or similar transaction where the Company does not survive the transaction; or (4) a merger, consolidation or similar transaction where the Company does survive the transaction but the shares of our Common Stock outstanding immediately before such transaction are converted or exchanged into other property by virtue of the transaction.

32

Under the 2021 Equity Incentive Plan, a "change in control" generally means the occurrence of any one or more of the following events: (1) the acquisition by any person, entity or group of our securities representing more than 50% of the combined voting power of our then outstanding securities, other than by virtue of a merger, consolidation, or similar transaction; (2) a merger, consolidation or similar transaction in which our shareholders immediately before such transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity) in substantially the same proportions as their ownership immediately prior to such transaction; (3) our shareholders approve or our Board of Directors approves our complete dissolution or liquidation, or our complete dissolution or liquidation otherwise occurs; (4) a sale, lease, exclusive license or other disposition of all or substantially all of our assets, other than to an entity, more than 50% of the combined voting power of which is owned by our shareholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to

such transaction; or (5) when a majority of our Board of Directors becomes comprised of individuals who were not serving on our Board of Directors on the date the 2021 Equity Incentive Plan was adopted by our Compensation Committee (the "incumbent Board of Directors"), or whose nomination, appointment, or election was not approved by a majority of the incumbent Board of Directors still in office.

Plan Amendments and Termination

The Plan Administrator will have the authority to amend or terminate the 2021 Equity Incentive Plan at any time. However, except as otherwise provided in the 2021 Equity Incentive Plan, no amendment or termination of the 2021 Equity Incentive Plan may materially impair a participant's rights under his or her outstanding awards without the participant's consent. We will obtain shareholder approval of any amendment to the 2021 Equity Incentive Plan as required by applicable law and listing requirements.

U.S. Federal Income Tax Consequences

The following is a summary of the principal United States federal income tax consequences to participants and us with respect to participation in the 2021 Equity Incentive Plan. This summary is not intended to be exhaustive and does not discuss the income tax laws of any local, state or foreign jurisdiction in which a participant may reside. The information is based upon current federal income tax rules and therefore is subject to change when those rules change. Because the tax consequences to any participant may depend on his or her particular situation, each participant should consult the participant's tax adviser regarding the federal, state, local and other tax consequences of the grant or exercise of an award or the disposition of stock acquired the 2021 Equity Incentive Plan. The 2021 Equity Incentive Plan is not qualified under the provisions of Section 401(a) of the Internal Revenue Code of 1986, as amended, (the "Code") and is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974. Our ability to realize the benefit of any tax deductions described below depends on our generation of taxable income as well as the requirement of reasonableness and the satisfaction of our tax reporting obligations.

Nonstatutory Stock Options

Generally, there is no taxation upon the grant of an NSO if the stock option is granted with an exercise price equal to or higher than the fair market value of the underlying stock on the grant date. Upon exercise, a participant will recognize ordinary income equal to the excess, if any, of the fair market value of the underlying stock on the date of exercise of the stock option over the exercise price. If the participant is employed by us, that income will be subject to withholding taxes. The participant's tax basis in those shares will be equal to his or her fair market value on the date of exercise of the stock option, and the participant's capital gain holding period for those shares will begin on that date.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the participant.

Incentive Stock Options

The 2021 Equity Incentive Plan authorizes the grant of stock options that are intended to qualify as "incentive stock options," as defined in Section 422 of the Code. Under the Code, a participant generally is not subject to ordinary income tax upon the grant or exercise of an ISO. If the participant holds a share received upon exercise of an ISO for more than two years from the date the stock option was granted and more than one year from the date the stock option was exercised, which is referred to as the required holding period, the difference, if any, between the amount realized on a sale or other taxable disposition of that share and the participant's tax basis in that share will be long-term capital gain or loss.

33

If, however, a participant disposes of a share acquired upon exercise of an ISO before the end of the required holding period, which is referred to as a disqualifying disposition, the participant generally will recognize ordinary income in the year of the disqualifying disposition equal to the excess, if any, of the fair market value of the share on the date of exercise of the stock option over the exercise price. However, if the sales proceeds are less than the fair market value of the share on the date of exercise of the stock option, the amount of ordinary income recognized by the participant will not exceed the gain, if any, realized on the sale. If the amount realized on a disqualifying disposition exceeds the fair market value of the share on the date of exercise of the stock option, that excess will be short-term or long-term capital gain, depending on whether the holding period for the share exceeds one year.

For purposes of the alternative minimum tax, the amount by which the fair market value of a share of stock acquired upon exercise of an ISO exceeds the exercise price of the stock option generally will be an adjustment included in the participant's alternative minimum taxable income for the year in which the stock option is exercised. If, however, there is a disqualifying disposition of the share in the year in which the stock option is exercised, there will be no adjustment for alternative minimum tax purposes with respect to that share. In computing alternative minimum taxable income, the tax basis of a share acquired upon exercise of an ISO is increased by the amount of the adjustment taken into account with respect to that share for alternative minimum tax purposes in the year the stock option is exercised.

We are not allowed a tax deduction with respect to the grant or exercise of an ISO or the disposition of a share acquired upon exercise of an ISO after the required holding period. If there is a disqualifying disposition of a share, however, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the participant, subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and provided that either the employee includes that amount in income or we timely satisfy our reporting requirements with respect to that amount.

Restricted Stock Awards

Generally, the recipient of a restricted stock award will recognize ordinary income at the time the stock is received equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. If, however, the stock is not vested when it is received (for example, if the employee is required to work for a period of time in order to have the right to sell the stock), the recipient generally will not recognize income until the stock becomes vested, at which time the recipient will recognize ordinary income equal to the excess, if any, of the fair market value of the stock on the date it becomes vested over any amount paid by the recipient in exchange for the stock. A recipient may, however, file an election with the Internal Revenue Service, within 30 days following his or her receipt of the restricted stock award, to recognize ordinary income, as of the date the recipient receives the restricted stock award, equal to the excess, if any, of the fair market value of the stock on the date the restricted stock award is granted over any amount paid by the recipient for the stock.

The recipient's basis for the determination of gain or loss upon the subsequent disposition of shares acquired from a restricted stock award will be the amount paid for such shares plus any ordinary income recognized either when the stock is received or when the stock becomes vested.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock award.

Restricted Stock Unit Awards

Generally, the recipient of a restricted stock unit award structured to comply with the requirements of Section 409A of the Code or an exception to Section 409A of the Code will recognize ordinary income at the time the stock is delivered equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. To comply with the requirements of Section 409A of the Code, the stock subject to a restricted stock unit award may generally only be delivered upon one of the following events: a fixed calendar date (or dates), separation from service, death, disability or a change in control. If delivery occurs on another date, unless the restricted stock unit award otherwise complies with or qualifies for an exception to the requirements of Section 409A of the Code (including delivery upon

The recipient's basis for the determination of gain or loss upon the subsequent disposition of shares acquired from a restricted stock unit award will be the amount paid for such shares plus any ordinary income recognized when the stock is delivered.

Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock unit award.

Stock Appreciation Rights

Generally, if a stock appreciation right is granted with an exercise price equal to or greater than the fair market value of the underlying stock on the grant date, the recipient will recognize ordinary income equal to the fair market value of the stock or cash received upon such exercise. Subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation, we will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the stock appreciation right.

Section 162(m) Limitations

Under Section 162(m) of the Code, compensation paid to any publicly held corporation's "covered employees" that exceeds \$1 million per taxable year for any covered employee is generally non-deductible. Awards granted under the 2021 Equity Incentive Plan will be subject to the deduction limit under Section 162(m) of the Code. These awards will not qualify for the performance-based compensation exception under Section 162(m) of the Code pursuant to the transition relief provided by the Tax Cuts and Jobs Act.

Effects of failure to approve Proposal 6

If the Company's shareholders do not approve Proposal 6, to increase the number of shares of Common Stock available under the 2021 Equity Incentive Plan, after a Reverse Stock Split, the Company will not have enough shares of Common Stock available to grant incentive awards to employees, non-employee directors and consultant, which could be detrimental to the Company.

Vote Required and Board of Directors' Recommendation

Approval of this proposal requires the affirmative vote of the majority of the shares represented in person or by Proxy at the Annual Meeting and entitled to vote on the proposal. In the event the shareholders fail to approve the Plan Amendment, attached hereto as **Appendix C**, the existing 2021 Equity Incentive Plan will continue in operation pursuant to its terms. Because each of our Directors and executive officers are eligible to participate in the 2021 Equity Incentive Plan, the approval of the Plan Amendment to the 2021 Equity Incentive Plan impacts each of our Directors and executive officers and thus each of our Directors and executive officers has a personal interest in this proposal and its approval by our shareholders.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 6.

35

PROPOSAL 7 RATIFICATION OF THE SELECTION OF CHERRY BEKAERT LLP AS THE COMPANY'S INDEPENDENT AUDITORS

Summary

Mayer Hoffman McCann P.C. ("MHM") served as the Company's independent auditors and independent registered public accounting firm for the completion of the Company's audit for the year ended December 31, 2022.

As previously reported, on August 15, 2023, we informed MHM of our decision to engage Cherry Bekaert LLP (*Cherry Bekaert*). On August 18, 2023, upon the completion of a comprehensive selection process, the Audit Committee (the "Audit Committee") of the Company's Board of Directors approved the dismissal, effective immediately, of MHM and engaged Cherry Bekaert as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2023. The Company believes the appointment of Cherry Bekaert is in the best interest of its shareholders.

The audit report of MHM relating to the Company's financial statements as of and for the year ended December 31, 2022 did not contain any adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope, or accounting principles, except for the following: The report included an explanatory paragraph regarding substantial doubt about the Company's ability to continue as a going concern as result of its recurring operating losses, negative operating cash flows and accumulated deficit.

During the fiscal year ended December 31, 2022 and the subsequent interim period through June 30, 2023, there were: (i) no disagreements within the meaning of Item 304(a)(1)(iv) of Regulation S-K between the Company and MHM on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which, if not resolved to MHM's satisfaction, would have caused MHM to make reference thereto in MHM's reports; and (ii) no "reportable events" within the meaning of Item 304(a)(1)(v) of Regulation S-K, except that as disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2022, the Company reported that its internal control over financial reporting was not effective as of December 31, 2022 due to a material weakness in its internal controls related to the review of research and development contracts. The material weakness resulted in material errors in the unaudited financial statements for the three-month periode ended March 31, 2022, the three- and six- month periods ended June 30, 2022, and the three- and nine- month periods ended September 30, 2022. As a result, the Company restated certain information contained in its previously issued unaudited interim consolidated financial statements for its Q1 2022 10-Q, the Q2 2022 10-Q, and the Q3 2022 10-Q. All such amendments were filed with the SEC on April 14, 2023. Management has been implementing and continues to implement measures designed to ensure that control deficiencies contributing to the material weakness are remediated, such that these controls are designed, implemented and operating effectively.

The Company provided MHM with a copy of the foregoing disclosures and requested that MHM furnish a letter addressed to the SEC stating whether it agrees with the foregoing disclosures. A copy of MHM's letter, dated August 18, 2023, was filed as Exhibit 16.1 to the Company's Form 8-K filed with the SEC on August 18, 2023.

The audit report of Cherry Bekaert relating to the Company's financial statements as of and for the years ended December 31, 2023 and December 31, 2024 did not contain any adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope, or accounting principles, except for the following: The report included an explanatory paragraph regarding substantial doubt about the Company's ability to continue as a going concern as result of its recurring operating losses, negative operating cash flows and accumulated deficit.

36

Independent Auditors' Fees and Services

The following table provides the aggregate fees billed for professional services rendered by the MHM, the Company's prior principal accountants, and Cherry Bekaert, the Company's current principal accountants, in the categories indicated during each of the past two fiscal years ended December 31:

MHM Fees

Services Rendered	2024		20	23
Audit Fees (1)	\$	176,956	\$	275,255
Audit-Related Fees (2)		_		_
Tax Fees (3)		_		8,750
All Other Fees (4)		_		_
	\$	176,956	\$	284,005

Cherry Bekaert Fees

Services Rendered	2024		2023
Audit Fees (1)	\$	231,513	\$ 125,725
Audit-Related Fees (2)		_	_
Tax Fees (3)		11,223	_
All Other Fees (4)		_	_
	\$	242,736	\$ 125,725

- (1) Audit Fees. This category includes fees for professional services provided in conjunction with the audit of the Company's financial statements and with the audit of management's assessment of internal control over financial reporting and the effectiveness of internal control over financial reporting, review of the Company's quarterly financial statements, assistance and review of documents filed with the Securities and Exchange Commission, consents, and comfort letters and attestation services provided in connection with statutory and other regulatory filings and engagements.
- (2) Audit-Related Fees. This category includes fees for assurance and related professional services associated with due diligence related to mergers and acquisitions, consultation on accounting standards or transactions, internal control reviews and assistance with internal control reporting requirements, services related to the audit of employee benefit plans, and other attestation services not required by statute or regulation.
- (3) Tax Fees. This category includes fees for professional services provided related to tax compliance, tax planning and tax advice.
- (4) All Other Fees. There were no other fees paid to Mayer Hoffman McCann P.C. or Cherry Bekaert.

Substantially all MHM's personnel, who work under the control of MHM shareholders, are employees of wholly owned subsidiaries of CBIZ, Inc., which provides personnel and various services to MHM in an alternative practice structure. Substantially all of Cherry Bekaert LLP's personnel, who work under the control of Cherry Bekaert LLP partners, are employees of Cherry Bekaert Advisory, LLC, which provides personnel and other services to Cherry Bekaert LLP in an alternative practice structure.

Pre-Approval Policy

The Audit Committee approves in advance all audit and non-audit services to be performed by the Company's independent registered public accounting firm. The Audit Committee considers whether the provision of any proposed non-audit services is consistent with the Securities and Exchange Commission rules on auditor independence and has pre-approved certain specified audit and non-audit services to be provided by Cherry Bekaert, LLP for up to twelve (12) months from the date of the pre-approval. If there are any additional services to be provided, a request for pre-approval must be submitted by management to the Audit Committee for its consideration.

Vote Required and Board of Directors' Recommendation

Approval of this proposal requires the affirmative vote of the majority of the shares represented in person or by Proxy at the Annual Meeting and entitled to vote on the proposal.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 7.

37

PROPOSAL 8

APPROVAL OF THE ADJOURNMENT PROPOSAL

(BUT ONLY IF THE NUMBER OF SHARES OF COMMON STOCK AND SERIES G MIRRORING PREFERRED STOCK PRESENT OR REPRESENTED BY PROXY AT THE ANNUAL MEETING AND VOTING "FOR" THE ADOPTION OF PROPOSAL 4 OR PROPOSAL 5 ARE INSUFFICIENT)

Adjournment of the Annual Meeting

In the event that the number of shares of Shares of Common Stock and Series G Mirroring Preferred Stock present or represented by proxy at the Annual Meeting and voting "FOR" the adoption of Proposal 4 or Proposal 5 are insufficient to approve such proposals, we may move to adjourn the Annual Meeting in order to enable us to solicit additional proxies in favor of the adoption of Proposal 4 or Proposal 5 and the other proposals. In that event, we will ask shareholders to vote only upon the Adjournment Proposal or Proposal 4 and Proposal 5, and not on any other proposal discussed in this Proxy Statement.

For the avoidance of doubt, any proxy authorizing the adjournment of the Annual Meeting shall also authorize successive adjournments thereof, at any meeting so adjourned, to the extent necessary for us to solicit additional proxies in favor of the adoption of any such proposal.

Vote Required and Board of Directors' Recommendation

Approval of this proposal requires the affirmative vote of the majority of the shares represented in person or by proxy at the Annual Meeting and entitled to vote on the proposal. As discussed elsewhere in the Proxy Statement, the shares of Common Stock and Series G Mirroring Preferred Stock vote as a single class on this proposal. Since the Series G Mirroring Preferred Stock has 1,000 votes per share on the proposal and votes of the shares of Series G Mirroring Preferred Stock, when cast, are automatically voted in the same proportion as the shares of Common Stock that are voted on this proposal, shares of Common Stock affirmatively voted for the proposal will have the effect of causing the proportion of Series G Preferred Stock voted for the proposal to increase accordingly and, conversely, shares of Common Stock affirmatively voted against the proposal will have the effect of causing the proportion of Series G Preferred Stock voted against the proposal to increase accordingly.

THE BOARD RECOMMENDS A VOTE "FOR" PROPOSAL 8.

38

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The information contained in this report shall not be deemed to be "soliciting material" or to be "filed" with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that we specifically incorporate it by reference in such filing.

The following is the report of the Audit Committee with respect to our audited financial statements for the fiscal year ended December 31, 2024, and the notes thereto.

Review with Management

The Audit Committee reviewed and discussed with management our audited financial statements for the fiscal year ended December 31, 2024, and the notes thereto. Management represented to the Audit Committee that our financial statements were prepared in accordance with generally accepted accounting principles.

Review and Discussions with Independent Registered Public Accounting Firm

The Audit Committee discussed with Cherry Bekaert LLP the matters required to be discussed by applicable standards of the Public Company Accounting Oversight Board (the "PCAOB") and the SEC, which includes, among other items, matters related to the conduct of the audit of our financial statements.

The Audit Committee also received and reviewed written disclosures and the letter from Cherry Bekaert LLP as required by applicable requirements of the PCAOB and has discussed with Cherry Bekaert LLP their independence from us.

Conclusion

Based on the review and discussions referred to above, the Audit Committee recommended to our Board of Directors that our audited financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2024, for filing with the Securities and Exchange Commission.

Submitted by the Audit Committee:

Charles L. Pope (Chair) Dr. Alan Dunton Dr. Frederick Telling John Gandolfo (from March 2024)

30

CORPORATE GOVERNANCE

The Company's current corporate governance practices and policies are designed to promote shareholder value. We are committed to the highest standards of corporate ethics and diligent compliance with financial accounting and reporting rules. Our Board provides independent leadership in the exercise of its responsibilities. Our management oversees a system of internal controls and compliance with corporate policies and applicable laws and regulations, and our employees operate in a climate of responsibility, candor and integrity. You can access information regarding our corporate governance practices on our web site at: https://ir.oragenics.com/governance-docs.

Board of Directors Corporate Governance Policy

Our Board has adopted the Board of Directors Corporate Governance Policy, which sets forth the principles that guide the Board's exercise of its responsibility to oversee corporate governance, maintain its independence, evaluate its own performance and the performance of our executive officers and set corporate strategy. Our Corporate Governance Policy, states that currently different individuals fill the roles of Chairman and Chief Executive Officer. Our Board may refine our Corporate Governance Policy from time to time. You can access our Corporate Governance Policy on our website at: https://ir.oragenics.com/governance-docs.

Code of Ethics/Standards of Business Conduct

It is our policy to conduct our operations in compliance with all applicable laws and regulations and to operate our business under the fundamental principles of honesty, integrity and ethical behavior. We have adopted a code of ethics known as the Company Operating Principles, which is applicable to all of our Directors and employees, including our principal executive officer and our principal financial officer. A copy of the Company Operating Principles can be found on our website at www.oragenics.com. Any future amendments to, or waivers from, the Company Operating Principles will be posted on our website.

Our Company Operating Principles are designed to promote honest and ethical conduct and compliance with all applicable laws, rules and regulations and to deter wrongdoing. Our Company Operating Principles are also aimed at ensuring that information we provide to the public (including our filings with and submissions to the Securities and Exchange Commission) is accurate, complete, fair, relevant, timely and understandable. Our Company Operating Principles can be accessed on our web site at www.oragenics.com/governance. We intend to disclose amendments to certain provisions of our Company Operating Principles, or waivers of such provisions granted to Directors and executive officers, on our web site in accordance with applicable Securities and Exchange Commission requirements.

Independence of Directors

Our Common Stock is listed on a national securities exchange, the NYSE American. Accordingly, in determining whether our Directors are independent, we are required to comply with the rules of the NYSE American. We also expect to continue to comply with securities and other laws and regulations regarding the independence of Directors, including those adopted under Section 301 of the Sarbanes-Oxley Act and Rule 10A-3 under the Securities and Exchange Act of 1934 with respect to the independence of Audit Committee members. The NYSE American listing standards define an "independent director" generally as a person, other than an officer of a company, who does not, in the view of the company's Board of Directors, have a relationship with the company that would interfere with the Director's exercise of independent judgment. The Board has affirmatively determined that each of the following Directors, constituting a majority of the Board, is independent within the meaning of the NYSE American listing standards:

Charles L. Pope Dr. Frederick W. Telling Dr. Alan Dunton Robert Koski John P. Gandolfo

40

Such independence definition includes a series of objective tests, including that the Director is not an executive officer employee of the company and has not engaged in various types of business dealings with the company. In addition, as further required by the NYSE American listing standards, the Board has made a subjective determination as to each independent director that no relationships exist which, in the opinion of the Board, would interfere with the exercise of independent judgment in carrying out the responsibilities of a Director.

Board Leadership Structure

We currently separate the positions of Chief Executive Officer and Chair of the Board. Since December 16, 2022, Mr. Charles Pope, one of our independent Directors, has served our non-executive Chairman. The responsibilities of the Chair of the Board include: setting the agenda for each Board meeting, in consultation with the Chief Executive Officer; presiding at executive sessions; facilitating and conducting, with the Nominating Committee, the annual self-assessments by the Board and each standing committee of the Board, including periodic performance reviews of individual Directors; and conducting, with the Compensation Committee, a formal evaluation of the Chief Executive Officer and other executive officers in the context of the annual compensation review.

Separating the positions of Chief Executive Officer and Chair of the Board allows our Chief Executive Officer to focus on our day-to-day business, while allowing the Chair of the Board to lead the Board in its fundamental role of providing advice to and independent oversight of management. The Board believes that having an independent Director serve as Chair of the Board is the appropriate leadership structure for the Company at this time and demonstrates our commitment to good corporate governance.

In addition, as described in more detail below, our Board has three standing committees, each chair and each member of which is an independent Director. Our Board delegates substantial responsibility to each Board committee, which reports their activities and actions back to the Board. We believe that our independent Board committees and their chairs are an important aspect of our Board leadership structure.

Risk Oversight

Our Board, as a whole and through its committees, has responsibility for the oversight of risk management. With the oversight of our Board, our officers are responsible for the day-to-day management of the material risks the Company faces. In its oversight role, our Board has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed. The involvement of the Board in setting our business strategy at least annually is a key part of its oversight of risk management, its assessment of management's appetite for risk and its determination of what constitutes an appropriate level of risk for the Company. The Board regularly receives updates from management and outside advisors regarding certain risks the Company faces, including potential litigation and various operating risks.

In addition, our Board committees each oversee certain aspects of risk management. For example, our Audit Committee is responsible for overseeing risk management of financial matters, financial reporting, the adequacy of our risk-related internal controls, and internal investigations; our Compensation Committee oversees risks related to compensation policies and practices; and our Nominating Committee oversees governance related risks, such as Board independence and conflicts of interest, as well as management and Director succession planning. Our Board committees report their findings to the Board.

Senior management attends Board and Board committee meetings and is available to address any questions or concerns raised by the Board on risk management-related and any other matters. The Board holds periodic strategic planning sessions with senior management to discuss strategies, key challenges, and risks and opportunities for the Company.

41

Meetings of the Board of Directors and Committees

Board of Directors. Our property, affairs and business are under the general management of our Board of Directors as provided by the laws of the State of Florida and our Bylaws. The Board of Directors conducts its business through meetings of the full Board and through committees of the Board. The Board of Directors has appointed standing Audit, Compensation and Nominating and Governance Committees of the Board of Directors. The Board periodically reviews the size of the Board and recommends any changes it determines to be appropriate given our needs. Under our Bylaws, the number of members on the Board may be increased or decreased by resolution of the Board.

The Board currently consists of five members. The Board has no formal policy regarding board member attendance at the Annual Meeting. All of our existing Director attended the prior year's annual meeting and all of our Directors are expected to attend the Annual Meeting either in person or electronically. The Board of Directors met or unanimously consented to resolutions 7 times during the year ended December 31, 2024 ("Fiscal 2024"). All Directors attended at least 75% of the aggregate number of meetings of the Board of Directors and Committees during Fiscal 2024. In conjunction with regularly scheduled meetings, our "independent" Directors met in separate executive sessions.

Audit Committee: The Audit Committee members currently consist of Mr. Charles Pope, Dr. Frederick Telling, Dr. Alan Dunton and Mr. John Gandolfo, with Mr. Pope serving as Chairman. The Board has affirmatively determined that each such person met the independence requirements for audit committee purposes based on the more stringent independence standards imposed by applicable NYSE American and SEC rules. In addition, the Board of Directors has determined that Mr. Pope is an "audit committee financial expert" as that term is defined in Item 407(d)(5) of Regulation S-K promulgated under the Securities and Exchange Act of 1934. In March 2004, the Audit Committee adopted a written charter which was modified on April 24, 2007 and on December 29, 2009. The Company believes that its Audit Committee Charter complies with the requirements related to Sarbanes-Oxley and a current copy of the Audit Committee Charter is available on our website http://ir.oragenics.com/governance-docs. The Audit Committee met or unanimously consented to resolutions 4 times during Fiscal 2024.

The Audit Committee has the sole authority to engage and discharge, review the independence, qualifications, activities and compensation of the Company's independent registered certified public accountants. The Audit Committee reports to the Board the appointment of the independent registered certified public accountants. The Audit Committee must assure regular rotation of the lead and concurring audit partners. The Audit Committee is responsible for the oversight of the Company's financial

policies, control procedures, accounting staff, and reviews and approves the Company's financial statements. The Audit Committee is responsible for the review of transactions between the Company and any Company officer, Director or entity in which a Company officer or Director has a material interest. The Audit Committee must develop and maintain procedures for the submission of complaints and concerns about accounting and auditing matters. The Audit Committee must assure CEO and CFO certifications meet their obligations by performing a review and evaluation of the Company's disclosure controls and procedures. The Audit Committee has the authority to engage the services of an outside advisor when required. The Audit Committee must receive reports from the independent registered certified public accountants on critical accounting policies, significant accounting judgments and estimates, off-balance sheet transactions and non-Generally Accepted Accounting Principles financial measures.

Compensation Committee: The Compensation Committee consists of Directors Dr. Alan Dunton, Dr. Frederick Telling, Mr. Charles Pope and Mr. John Gandolfo, with Dr. Dunton serving as Chairman. The Board has determined that each current member of the Compensation Committee meets the applicable requirements for independence. None of the Compensation Committee members has ever been an officer or employee of the Company. The Compensation Committee is responsible for establishing the compensation of the Company's Directors, Chief Executive Officer and all other executive officers, including salaries, bonuses, severance arrangements, and other executive officer benefits. The Compensation Committee also administers the Company's various incentive and stock option plans and designates both the persons receiving awards and the amounts and terms of the awards. The Compensation Committee adopted a charter in March 2004 to outline its compensation, benefits and management development philosophy and to communicate to shareholders the Company's compensation policies and the reasoning behind such policies as required by the Securities and Exchange Commission. The Charter was modified on April 24, 2007, on December 29, 2009 and on June 6, 2013 and December 2019. A current copy of the Compensation Committee's charter is available on our website at www.oragenics.com. The Compensation Committee meet or unanimously consented to resolutions 2 times during Fiscal 2024.

42

Nominating Committee: The Nominating Committee consists of Directors Mr. Robert Koski, Dr. Alan Dunton and Dr. Frederick Telling with Dr. Telling serving as Chairman. The Board has determined that each current member of the Nominating Committee meets the applicable requirements for independence. The Nominating Committee meet three times during Fiscal 2024. The Board adopted a nominating committee charter. The charter was updated on February 12, 2014 and December 2019. A current copy of the Nominating Committee's charter is available on our website. In addition to recommending candidates to the Board for election at annual meetings of shareholders, the Nominating Committee oversees the evaluation of the Board as a whole and its committees, as well as individual evaluations of those Directors who are being considered for possible re-nomination to the Board. The evaluation process occurs annually and has, to date, been informal.

The Nominating Committee has not established specific minimum age, education, and years of business experience or specific types of skills for potential Director candidates, but, in general, expects qualified candidates will have ample experience and a proven record of business success and leadership. The Nominating Committee also believes it is appropriate for a member of the Company's management to participate as a member of the Board of Directors, although at present no such management member serves on the Board of Directors. The Nominating Committee will consider as candidates for Director individuals who possess a high level of ethics, integrity and values, and who are committed to representing the long-term interests of our shareholders. Such candidates must be able to make a significant contribution to the governance of the Company by virtue of their business and financial expertise, educational and professional background. The business discipline that may be sought at any given time will vary depending on the needs and strategic direction of the Company, and the disciplines represented by incumbent Directors. In evaluating candidates for nomination as a Director, the Nominating Committee will also consider other criteria, including geographical representation, independence, practical wisdom, mature judgment and having sufficient time to devote to the affairs of the Company in order to carry out the responsibilities of a Director. One or more of our Directors is required to possess the education or experience required to qualify as an audit committee financial expert as defined in the applicable rules of the Securities and Exchange Commission. The Nominating Committee does not have a formal policy with respect to diversity; however, the Board of Directors and the Nominating Committee believe that it is essential that the members of the Board of Directors represent diverse viewpoints and a diverse mix of the specific criteria above. The entire Board of Directors is polled for suggestions as to individuals

Shareholder Recommendation of Nominees. The Board does not currently have a policy with regard to the consideration of any Director candidates recommended by security holders. Given the Company's current size, stage of development, and size of the Board, the Board believes that it is not currently appropriate to establish a separate policy for security holders to submit such recommendations. Notwithstanding the lack of a formal policy regarding security holder nominations, the Board may from time to time consider candidates proposed for consideration for service on the Company's Board by security holders. The Nominating Committee will consider qualified Director nominees recommended by shareholders when such recommendations are submitted in accordance with applicable law, rule or regulation regarding Director nominations. Shareholders may submit candidates for nomination to our Board of Directors by writing to: Nominating Committee of the Board of Directors, Oragenics, Inc., 1990 Main St. Suite 750, Sarasota, Florida 34236.

When submitting a nomination to us for consideration, a shareholder must provide certain information about each person whom the shareholder proposes to nominate for election as a Director, including: (i) the name, age, business address and residence address of the person; (ii) the principal occupation or employment of the person; (iii) the class or series and number of shares of our capital stock owned beneficially or of record by the person; and (iv) any other information relating to the person that would be required to be disclosed in a Proxy statement or other filings required to be made in connection with solicitations of proxies for election of Directors pursuant to Section 14 of the Securities Exchange Act of 1934, or the Exchange Act, and the rules and regulations promulgated thereunder. Such notice must be accompanied by the proposed nominee's written consent to be named as a nominee and to serve as a Director if elected. The Board has not set any specific minimum qualifications that must be met by a nominee presented for consideration to the Board by a security holder. A Board member may become aware of a potential nominee and present such nominee to the full Board for consideration at a Board meeting. The Board would evaluate the candidate and determine whether such person should be considered for Board service based on a variety of criteria including but not limited to, whether the individual has experience in the Company's industry, potential conflicts, and the person's ability to work with existing Board members and expected contributions. The Board would evaluate a nominee submitted by a security holder in the same or similar manner as one recommended by the Nominating Committee.

43

Direct Shareholder Communication to Board Members

The Company does not currently have a formal process for direct shareholder communications to the Board. The basis for the Board's view that it is appropriate for the Company to not have such a formal process includes but is not limited to the following: the Company's limited financial and personnel resources, the Company's stage of operations and development and the ability for shareholders to communicate with Board members informally.

Shareholders with questions about the Company are encouraged to contact the Company's Corporate Secretary. However, if shareholders feel their questions have not been addressed, they may communicate with the Company's Board of Directors by sending their communications to an individual Director(s) or to the Company's Board of Directors, c/o Corporate Secretary, Oragenics, Inc., 1990 Main St. Suite 750, Sarasota, Florida 34236. All shareholder communications received by the Company's Corporate Secretary in this manner will be delivered to the individual Director(s) or to the Company's Board of Directors.

The Chairman of the Board of Directors, Mr. Charles Pope, is an independent Director and has been designated by the Board of Directors to preside at the executive sessions of the independent Directors. If interested parties wish to make a concern known to the independent Directors, they may do so in a writing addressed to the Chairman of the Board, Oragenics, Inc., 1990 Main St. Suite 750, Sarasota, Florida 34236

Director Compensation

Non-employee directors

Cash Compensation. The Director compensation program for 2024 provided that all non-employee Directors would receive an annual base fee for service on the Board of \$45,000. In addition, the Chairperson of the Board and of our Audit Committee, Compensation Committee and Nominating Committee would also receive annual fees of \$40,000, \$20,000, \$15,000 and \$10,000 respectively. All non-employee Directors serving on our Audit Committee, Compensation Committee and Nominating Committee (other than as the Chairperson) would receive an annual fee of \$10,000, \$7,500, and \$5,000, respectively, in connection with such committee service. In addition, from time to time, the Board may establish special committees and in connection therewith determine the cash compensation that would be paid to the Directors serving on a special committee at the time of the establishment of such committee. All fees for Board service are generally paid on or before the last business day of each quarter.

The Board expects to meet in-person for a minimum of four meetings each year. To the extent, the Board meets in excess of six in-person meetings an additional per meeting fee would also be considered to be paid to each Director by the Board for such additional in-person meeting. To the extent the Board determines to establish a special committee or a special committee was previously established and continues to function, the Board would determine the cash compensation payable to each Director serving on any such special committee.

Our Compensation Committee and our Board of Directors use market data as one means of evaluating and establishing Board remuneration. From time to time the Compensation Committee seeks the advice for compensation consultants on matters related to executive compensation, board remuneration and related governance matters.

Equity Compensation-New Director: Equity compensation is issued to Directors upon joining our Board. Non-employee Directors receive a stock option for the purchase of shares of Company's Common Stock equating to \$60,000 with an exercise price set as the Closing price of the Company's Common Stock on the day immediately prior to the appointment to the Board, which will immediately vest and be exercisable for ten years, subject to early termination under the terms of the 2021 Equity Incentive Plan. If new Directors join the Board before July 1 of the calendar year, they would receive 100% of the value; 50% of such total value if they join between July 1 and October 1; 25% of such total value if they join after October in a calendar year.

44

Annual Equity Compensation Awards. As part of the Director Compensation Program each non-employee director receives equity awards under the 2021 Equity Incentive Plan. In August 2023, the Board considered and made annual equity awards to non-employee Directors of 25,000 shares of restricted stock each which were awarded under the Company's 2021 Equity Incentive Plan. 20,000 shares of restricted stock vested immediately and the remaining 5,000 vested on the six month anniversary of the grant date.

Discretionary Awards. As part of the Director Compensation Program, the Board may also make discretionary equity-based awards from time to time under our 2021 Equity Incentive Plan.

Minimum dollar value stock ownership requirements. Each non-employee Director receiving the above equity-based awards will be subject to a minimum dollar value stock ownership holding requirement with respect to the awards received as well as all prior equity awards under the 2021 Equity Incentive Plan which requirement is intended to align the ability to sell shares with the performance of the Company's stock price. The non-employee Directors will each be subject to a minimum dollar value stock ownership requirement equal to six times the annual Board retainer (\$270,000) which dollar threshold they would be precluded from selling shares of Company stock acquired from the Company under its 2021 Equity Incentive Plan.

Reimbursement of Expenses. Non-employee Directors are also reimbursed for expenses incurred in connection with their attendance at Board or committee meetings and reasonable out-of-pocket business expenses associated with their Board service.

Long-term Incentive Compensation. The Company did not have a Long-Term Incentive Compensation plan in place performance in 2024 for its Non-Employee Directors.

The following table sets forth the compensation of our non-employee Directors in 2024.

Non-Employee Director Compensation Table

	Fo	ees earned		
	C	r paid in	Option	
Name		cash (1)	awards (2)	Total
Dr. Frederick W. Telling	\$	72,500	\$ 39,000	\$ 111,500
Robert C. Koski	\$	50,000	\$ 25,350	\$ 75,350
Charles L. Pope	\$	112,500	\$ 25,350	\$ 137,850
Dr. Alan W. Dunton	\$	75,000	\$ 25,350	\$ 100,350
Bruce Cassidy	\$	56,250	\$ 17,550	\$ 73,800
John Gandolfo	\$	45,000	\$ 17,550	\$ 62,550
Kimberly Murphy	\$	14,456	\$ 10,562	\$ 25,018

- (1) Amounts represent cash compensation earned by our Non-employee Directors during 2024 in connection with their Board service including any service on committees or service in connection with special committees established by the Board.
- (2) The amounts in this column represent the aggregate grant date fair value computed in accordance with Financial Accounting Standards Board Accounting Standards Codification, Topic 718, Compensation—Stock Compensation (ASC 718). See Notes 2 and 8 of Notes to Consolidated Financial Statements. On September 19, 2024, Mr. Pope received 100,000 options at a grant price of \$0.48 per share. Mssrs. Koski, Telling and Dunton received 65,000 options at a grant price of \$0.48 per share. Mssrs. Gandolfo and Cassidy received 45,000 options at a grant price of \$0.48. Ms. Murphy received 27,083 options at a grant price of \$0.48 per share. According to the terms of the grants, the options vested immediately.
- (3) Mr. Cassidy resigned from the Board in January 2025.
- (4) Ms. Murphy is a former Director who resigned from the Board in December 2024.

Employee Directors

The Director Compensation Program provides that employee Directors receive no additional compensation in connection with their board service. There was one employee Director in 2024, Ms. Murphy, our former President and Chief Executive Officer for a portion of the year, and no separate compensation is paid for her service as a Director after she became an executive officer of the Company. For a summary of Ms. Murphy's compensation as a named executive officer, see the Summary Compensation Table.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

This section explains the objectives of our named executive officer compensation program, the compensation decisions we made with respect to compensation for our fiscal year ended December 31, 2024, and the factors we considered in making those decisions, and focuses on the compensation of officers who are listed below as our "named executive officers" and Key Employees:

- Kimberly Murphy, our former Chief Executive Officer;
- Janet Huffman, Chief Financial Officer, Interim Chief Executive Officer; and
- Michael Redmond, our former President.

The Compensation Committee of our Board of Directors is responsible for establishing and evaluating our policies governing the compensation of our executive officers, including our named executive officers. The Compensation Committee reviews and proposes recommendations to the Board of Directors regarding the compensation to be paid to the Chief Executive Officer. In addition, the Compensation Committee reviews and approves the compensation to be paid to all other executive officers. The Compensation Committee ensures that the total compensation paid to our executive officers is fair, reasonable, and competitive. The Compensation Committee has, in the past, at times included the other members of our Board of Directors in its deliberations regarding the salaries of our named executive officers.

At our 2023 Annual Meeting of Shareholders, on an advisory basis, a majority of the shareholders who voted on this matter, approved the compensation of our named executive officers as disclosed in our Proxy Statement. The Compensation Committee believes the views of our shareholders are an important consideration when making decisions regarding our compensation program and will continue to take the views of our shareholders into consideration when assessing our compensation program and making decisions related to the structure and amount of pay.

Business Highlights

During 2024, we paused the development of our immunization product candidate to combat the novel coronavirus pandemic and focused on the development of our Neurology Assets. Our compensation program continues to reflect the challenges associated with designing a compensation program at the beginning of the year that addresses our preclinical work and our strategy of acquiring additional product-development assets. Despite such challenges, the Compensation Committee remains committed to a philosophy which strongly aligns pay with demonstrated performance and is confident that the decisions made are reflective of this overarching philosophy.

Compensation Objective

Our named executive officer compensation programs are designed to achieve the following objectives:

- Attract, motivate and reward named executive officers whose knowledge, skills, performance and business relationships are critical to our success;
- Align the interests of our named executive officers and stockholders by motivating named executive officers to ultimately increase stockholder value as well as facilitate retention;
- . Motivate our named executive officers to manage our business to meet our short-term and long-range goals and reward accomplishment of these goals; and
- Provide a competitive compensation package which includes some pay for performance factors.

46

Compensation Determination Process

We conduct an annual review of named executive officer compensation, generally in December or January. At the Compensation Committee's direction, our Chief Executive Officer prepares an executive compensation review for each named executive officer, other than their self, which may include recommendations for:

- a proposed year-end bonus, if any, based on the achievement of individual and/or corporate objectives;
- a proposed increase, if any, in base salary and target annual incentive opportunity for the upcoming year; and
- an award, if any, of stock options or stock awards for the year under review.

As part of the compensation review, our Compensation Committee also considers changes to a named executive officer's employment agreement, compensation arrangements and benefits, responsibilities, or severance arrangements.

In accordance with NYSE American requirements, the Compensation Committee also meets in an executive session without the Chief Executive Officer to consider and make recommendations to our Board of Directors regarding the Chief Executive Officer's compensation, including base salary, cash bonus and year-end annual stock options. The Compensation Committee also grants year-end stock options to other named executive officers based on, among other factors, recommendations by our Chief Executive Officer.

In conjunction with the year-end annual compensation review, or as soon as practicable after the fiscal year-end, our Chief Executive Officer recommends to the Compensation Committee the corporate objectives and other criteria to be utilized for purposes of determining cash bonuses (i) for each named executive officer for the upcoming year (in accordance with that named executive officer's employment agreement), and (ii) for all other employees as a group. The Compensation Committee in its discretion may revise our Chief Executive Officer's recommendations or make its own recommendations to our Board of Directors, which may in turn suggest further revisions. At the end of the year, the Compensation Committee, in consultation with our Chief Executive Officer, reviews performance and determines the extent to which any established goals were achieved.

Setting Compensation for Named Executive Officers - Compensation Committee, Board of Directors and Chief Executive Officer or Principal Executive Officer

The Compensation Committee of our Board of Directors has the primary responsibility for determining the compensation of our named executive officers. Our Compensation Committee recommends the compensation of our Chief Executive Officer or Principal Executive Officer and determines all compensation matters for our named executive officers, including base salary, bonuses, and equity compensation. Our Board of Directors, after considering the recommendations of the Compensation Committee, makes the final determination with respect to the compensation of our Chief Executive Officer or Principal Executive Officer. Utilizing input from our Chief Executive Officer or Principal Executive Officer, the Compensation Committee makes an independent decision on compensation for each other named executive officers, although our Compensation Committee has, on occasion, submitted its compensation determinations for named executive officers to our full Board of Directors for its approval.

Role of Compensation Consultant

Our Compensation Committee is authorized to engage compensation consultants or other advisors to review our executive officers' compensation, including a benchmarking analysis against the compensation of executive officers at comparable companies, to ensure that our compensation is market competitive, with the goal of retaining and adequately motivating our senior management. In March 2019 and January of 2020, our Compensation Committee retained Korn Ferry as a compensation consultant ("Korn Ferry") to assess our current compensation programs and provide recommendations for continued improved alignment of the programs with our compensation philosophy and goals and to review and make recommendations regarding our executive and Director compensation for 2019 and 2020.

Our Compensation Committee evaluates the performance of its compensation consultant, considers alternative compensation consultants, and has the final authority to engage and terminate such services. The Compensation Committee assessed the independence of Korn Ferry pursuant to SEC rules and the applicable listing standards of the NYSE American and concluded that no conflict of interest exists that would prevent Korn Ferry from serving as an independent consultant to our Compensation Committee. This Korn Ferry assessment has not been formally updated, nor has the engagement continued as the Compensation Committee believes, based on a variety of factors, including the small number of employees, that an updated assessment was not warranted

47

Benchmarking in the Context of Our Other Executive Compensation Principles

From time to time, our Compensation Committee reviews the compensation of similarly situated executive officers at companies that we consider to be our peers, taking into consideration the experience, position and functional role, level of responsibility and uniqueness of applicable skills of both our executive officers and those of our peers, and the demand and competitiveness for attracting and retaining an individual with each executive officer's specific expertise and experience. While this analysis is helpful in determining market-competitive compensation for senior management, it is only one factor in determining our executive officers' compensation, and our Compensation Committee exercises its judgment in determining the nature and extent of its use.

For purposes of comparing our executive compensation against the competitive market, our Compensation Committee reviews and considers the compensation levels and practices of a group of comparable biotechnology companies known to the members of the Compensation Committee. This information was then used as a reference point for our Compensation Committee to assess our current compensation levels in the course of its deliberations on forms and amounts of compensation. Given our objective of attracting, retaining, motivating, and rewarding a highly-skilled team of executive officers and other employees, we aim to deliver a total compensation package that is within a competitive range around the median as compared to peers, with an emphasis on equity incentive compensation so as to more effectively tie our named executive officers and employees' interests to those of our shareholders. In light of this, when undertaking such analysis, our Compensation Committee has reviewed data pertaining to the 25th, 50th and 75th percentiles for base salary, total cash compensation (base salary plus annual bonus) and equity compensation. This competitive analysis is one factor, among others, taken into account by our Compensation Committee in assessing current compensation levels and recommending changes to compensation or additional awards of equity. Our Compensation Committee expects to review such compensation data as it believes necessary to make adjustments to its composition, taking into account changes in both our business and the businesses of the companies in the peer group. Due to the small number of employees and executive officers we have, among other factors, our Compensation Committee did not undertake an update to the peer group in 2024.

Our Compensation Committee believes that, given the competitiveness of our industry and our culture, our base compensation, annual cash bonuses and equity programs are flexible enough to reward the achievement of clearly defined corporate goals and are sufficient to retain our existing executive officers and to hire new executive officers with the appropriate qualifications and experience.

Elements of Named Executive Officer Compensation

For 2024, the principal components of compensation for our named executive officers consisted of:

- Annual base salary;
- Annual bonus incentives; and
- Equity Incentive Awards / Option Awards.

Annual Base Salary

We provide our named executive officers with a base salary to compensate them for services rendered during the year. Generally, the base salaries reflect the experience, skills, knowledge, and responsibilities required of each executive officer, and reflect our executive officers' overall performance and contributions to our business.

During its review of base salaries for executives, the Compensation Committee primarily considers:

- the negotiated terms of each named executive officer's employment agreement, if any;
- · an internal review of the named executive officer's compensation, both individually and relative to other named executive officers; and
- base salaries paid by comparable companies in the biopharmaceutical industry that have a similar business and financial profile.

48

Salary levels are considered annually as part of our performance review process. Merit-based increases to salaries are based on management's assessment of the individual's performance, the recommendations made by the Chief Executive Officer to the Compensation Committee, and the comparative compensation at peer companies. The factors used in determining increases in base salary include individual performance, changes in role and/or responsibility and changes in the competitive market environment. The Compensation Committee periodically reviews the base salary for each executive officer.

Annual Incentive Bonuses

We provide an opportunity for each of our named executive officers to receive an annual incentive bonus based on the satisfaction of individual and company objectives established by the Compensation Committee and/or our Board of Directors, or if no objectives are established at the discretion of the Committee. These incentives are paid in cash. For any given year, these objectives may include individualized goals or company-wide goals that relate to operational, strategic or financial factors such as progress in developing our product candidates, achieving certain manufacturing, intellectual property, clinical and regulatory objectives, and managing our capital requirements.

2024 Bonus Plan

The Company established performance-based bonus targets for its named executive officers in 2024 (the "2024 Bonus Plan"). The percentages were weighted for purposes of determining bonuses, if any, for the Company's executive officers with respect to 2024 performance. Under such a cash bonus program, Ms. Huffman and Mr. Redmond were eligible for cash bonuses of up to 35% and 50%% of their respective base salaries, or \$87,500 and \$198,000 respectively, (each a "Bonus Target").

The bonuses payable to Mr. Redmond were to be based upon the achievement of the following objectives:

- (i) Up to 30% of the Bonus Target for Phase II clinical trial patient milestones;
- (ii) Up to 40% of the Bonus Target for the Company's overseeing the Company's capital raising efforts;
- (iii) Up to 30% of the Bonus Target for the Company's strategic planning initiatives.

The bonuses payable to Ms. Huffman were to be based upon the achievement of the following objectives:

- (i) Up to 10% of the Bonus Target for the Company's annual meeting planning initiatives;
- (ii) Up to 5% of the Bonus Target for strategic talent acquisition in the Company's finance department;
- (iii) Up to 40% of the Bonus Target for the Company's overseeing the Company's capital raising efforts;
- (iv) Up to 15% of the Bonus Target for the Company's strategic planning initiatives; and
- (v) Up to 30% of the Bonus Target for the Company's strategy and initiatives related to risk management and internal controls.

The executive officers' actual bonuses for fiscal year 2024 were eligible to exceed 100% of their 2024 Bonus Target percentage in the event performance exceeds the predetermined goals and/or upon the achievement of other specified goals, including stretch goals. Payment of bonuses to the Company's executive officers under the 2024 Bonus Program and the actual amount of such bonus, if any, are at the discretion of the Compensation Committee.

Equity Incentive Compensation

We believe that successful long-term corporate performance is more likely to be achieved with a corporate culture that encourages a long-term focus by our named executive officers and other employees through the use of equity awards, the value of which depends on our stock performance. We established our 2021 Equity Incentive Plan to provide all of our employees, including our named executive officers, with incentives to help align our employees' interests with the interests of our stockholders and to enable them to participate in the long-term appreciation of our stockholder value. Additionally, equity awards provide an important retention tool for all employees, as the awards generally are subject to vesting over an extended period of time based on continued service with us.

We typically grant equity awards in connection with hiring a new employee. In addition, equity awards may also be granted for performance annually at, or soon after, the end of each year, depending on position, performance and tenure at the Company.

49

The determination of whether to grant stock options, as well as the size of such grants, to our named executive officers involves assessments by the Compensation Committee and our Board of Directors and, with respect to named executive officers other than herself, our Chief Executive Officer. Generally, annual equity awards are driven by our desire to retain and motivate our named executive officers, and we consider individual performance and contributions during the preceding year to the extent the Compensation Committee and our Board of Directors believe such factors are relevant. As with base salary and cash bonuses, in evaluating and determining stock option grants to our named executive officers, the Compensation Committee and our Board of Directors also considers publicly available data from other similar clinical stage companies identified by the Compensation Committee.

We currently grant stock options or stock awards to new employees when they join our Company based upon their position with us and their relevant prior experience. The awards granted by the Compensation Committee generally vest over time during the ten-year option term (although some previously granted awards vest immediately), or upon the achievement of certain milestones. Unless otherwise agreed to by us with respect to a termination without "cause" or for "good reason," vesting and exercise rights generally cease upon termination of employment, except in the case of death (subject to a one-year limitation), disability or retirement. Prior to the exercise of an option, the holder has no rights as a stockholder with respect to the shares subject to such option, including voting rights or the right to receive dividends or dividend equivalents. In addition to the initial option grants, our Compensation Committee may grant additional options to retain our employees and reward, or provide incentive for, the achievement of corporate goals and strong individual performance. Our Board of Directors has not granted our Chief Executive Officer the discretion to grant options to non-executive employees upon joining our Company, or to make grants during each annual non-executive employee review cycle.

It is our policy to award stock options at an exercise price equal to the closing price on the NYSE American Market of our common stock on the date of the grant. For purposes of determining the exercise price of stock options, the grant date generally based upon the later of the first day of employment for newly hired employees, or the date and time on which the Compensation Committee or Board approves the stock option grant.

We have no program, practice, or plan to grant stock options, in coordination with the release of material nonpublic information. We also have not timed the release of material nonpublic information for the purpose of affecting the value of stock options or other compensation, and we have no plan to do so. We do, however, have a policy regarding the adjustment or recovery of stock option awards in connection with the restatement of our financial statements, as our stock option awards have not been tied to the achievement of specific financial statement goals.

Other Compensation

Other aspects of compensation applicable to our named executive officers consist of the following:

Retirement Benefits. We maintain a Simple Individual Retirement Arrangement plan in which all full-time employees, including our named executive officers, are eligible to participate. We provide this plan to help its employees save some amount of their cash compensation for retirement in a tax efficient manner. We do not provide an option for its employees to invest in our stock under the 401k plan. We match 100% of the employee's contribution up to a maximum of 3% of the employee's compensation.

Health and Welfare Benefits. All full-time employees, including our named executive officers, may participate in our health and welfare benefit programs, including medical, dental and vision care coverage as may be provided and applicable to all employees.

Perquisites. We do not provide perquisites or other personal benefits to our named executive officers other than those that we provide to our employees.

Employment Agreements. During 2024, we had employment agreements in effect with Ms. Kimberly Murphy, Ms. Huffman and Mr. Redmond. We entered into employment agreements with these officers and key employees to ensure that they would perform their respective roles with us for an extended period of time. In addition, we also considered the critical nature of each of their positions and our need to retain them when we committed to these agreements.

2024 Named Executive Officer Compensation Decisions

We believe that the total compensation paid to our named executive officers for the fiscal year ended December 31, 2024, achieved the overall objectives of our executive compensation program. In accordance with our overall objectives, we believe executive compensation for 2024 was competitive with other similarly sized companies. The Compensation Committee took the following key compensation actions in 2024:

Base Salaries

During 2024, the annual base salary for named Executive Officers and key employees remained the same as for 2023.

	Annual Salary				Annual Salary	
Name	For 2023		Increase		For 2024	
Kimberly Murphy	\$	430,000	\$	_	\$	430,000(1)
Janet Huffman	\$	250,000	\$	-	\$	250,000
Joseph Michael Redmond	\$	396,000	\$	-	\$	396,000(2)

(1) Ms. Murphy resigned from her role as President and Chief Executive Officer in February of 2024 and, as a result, effective February 2024, Mr. Redmond, the Company's President, began also serving as the Company's Interim Principal Executive Officer and Mr. Pope began serving, on an interim basis, as Executive Chairman.

(2) The Company elected not to renew Mr. Redmond's Employment Agreement dated December 28, 2023 and on December 16, 2024, we terminated the employment of Mr. Redmond and appointed the Company's Chief Financial Officer, Janet Huffman, to serve as the new Interim Principal Executive Officer and President until such time as the Company retains a new Chief Executive Officer and President.

Determination of Cash Bonus-2024

Our Board of Directors determined that Ms. Huffman's 2024 performance-based cash bonus award to be \$75,000, which was paid in February 2025.

Determination of Equity Awards

On September 19, 2024, Ms. Huffman received a stock option grant pursuant to our 2021 Equity Incentive Plan (the "2021 Plan") to purchase 80,000 shares of our common stock at an exercise price of \$0.48 per share, the closing price of our common stock on the grant date. This award vested immediately.

On September 19, 2024, Mr. Redmond received a stock option grant pursuant to the 2021 Plan to purchase 100,000 shares of our common stock at an exercise price of \$0.48 per share, the closing price of our common stock on the grant date. This award vested immediately.

Other Policies and Considerations - Employment Contracts and Change in Control Arrangements

We entered into employment agreements with our former Chief Executive Officer, Ms. Murphy, our Chief Financial Officer, Ms. Huffman, and our former President, Mr. Redmond (the "Employment Agreements").

Employment Agreements—Ms. Murphy, our former Chief Executive Officer

On June 23, 2022, Ms. Murphy entered into an Executive Employment Agreement with us under terms substantially similar to the employment agreements of existing executives. Under the terms of her Executive Employment Agreement, Ms. Murphy's employment with us became effective June 23, 2022, On February 12, 2024, we entered into a mutually agreeable Separation Agreement (the "Separation Agreement"), with Ms. Murphy pursuant to which her employment with the Company terminated effective February 12, 2024. The Separation Agreement provided Ms. Murphy with the benefits under her employment agreement with the Company for a separation without cause. Ms. Murphy's resignation was not due to any disagreement with the Company on any matter related to its operations, policies, or practices.

In the Executive Employment Agreement Ms. Murphy agreed to duties of non-disclosure of Confidential Information, non-competition and non-solicitation and our ownership of development provisions. Ms. Murphy continued to serve as a member of the Company's board of directors (the "Board") until her term ended on December 11, 2024.

51

Employment Agreements—Mr. Michael Redmond, our former President

In connection with the purchase of the Neurology Assets we entered into an Executive Employment Agreement with Mr. Redmond with terms substantially similar to existing employment agreements with executives.

Under the terms of the Executive Employment Agreement, Mr. Redmond's employment with the Company became effective December 28, 2023. The Executive Employment Agreement provided that he would receive an annual base salary of \$396,000, Mr. Redmond was also eligible for a Performance Bonus with a target of 50% of his annual salary based on appropriate Company based and individual based targets in the discretion of the Compensation Committee as approved by the full Board of Directors. Mr. Redmond was also eligible to participate in the medical insurance and other benefits available to all employees except his annual vacation which was set at four (4) weeks.

In connection with Mr. Redmond's employment, he was awarded stock options to acquire 75,000 shares of common stock under the 2021 Plan at an exercise price of \$5.40 per share, which was the Company's closing price on the date of his employment agreement. 37,500 of the options vested immediately, 18,750 options vest on June 24, 2024, and 18,750 options vest on the first anniversary of the effective date, in each case provided Mr. Redmond had remained in continuous employment with the Company through such dates.

The Executive Employment Agreement was terminable at any time by the Company and upon 30 days' notice by Mr. Redmond. Upon separation for any reason Mr. Redmond shall receive his base salary accrued through the date of termination, and any vested rights and benefits provided under employee benefit plans and programs of the Company. In addition, if Mr. Redmond's separation from employment is terminated by the Company without cause, for good reason by Mr. Redmond or for non-renewal by the Company after the end of the initial term and Mr. Redmond signs

On November 26, 2024, we notified Mr. Redmond that we were not renewing his Employment Agreement. The initial term of the Agreement was one year. However, pursuant to the Agreement, the initial term automatically renews for one additional year unless either party provides the other party with a notice of non-renewal at least 30 days prior to the expiration of the initial term. Subsequently, effective December 16, 2024, we terminated Mr. Redmond's employment without cause and appointed the Company's Chief Financial Officer, Janet Huffman, to serve as the new Interim Principal Executive Officer and President until such time as the Company retains a new Chief Executive Officer and President.

In the Executive Employment Agreement Mr. Redmond has agreed to duties of non-disclosure of Confidential Information, non-competition and non-solicitation and Company ownership of development provisions.

On March 6, 2023, Ms. Huffman entered into an Executive Employment Agreement with us under terms substantially similar to the employment agreements of existing executives. Under the terms of her Executive Employment Agreement, Ms. Huffman's employment with us became effective March 6, 2023, and she receives an annual base salary of \$250,000 and will be eligible for a Performance Bonus with a target of 35% of her annual salary based on appropriate Company based and individual based targets in the discretion of the Compensation Committee as approved by the full Board of Directors. Ms. Huffman will be eligible to participate in the medical insurance and other benefits available to all employees except her annual vacation will be set at four (4) weeks.

On January 16, 2025, the Board appointed Ms. Huffman to also serve as the Company's Interim Chief Executive Officer effective as of January 16, 2025, and in connection therewith, the Board determined that, effective January 16, 2025, Ms. Huffman's employment agreement would be modified to (i) include her new title of Interim Chief Executive Officer; (ii) require that as she report directly to the Company's Board of Directors and its Executive Chairman; (iii) increase her base salary by 10% to \$275,000; and (iv) change her location to Sarasota (given the Company relocation from Tampa to Sarasota). All other terms of Ms. Huffman's Employment Agreement remain in full force and effect

In connection with Ms. Huffman's employment, she was awarded stock options to acquire 7,000 shares of our common stock under our 2021 Plan, at an exercise price of \$4.00 per share, which was our closing price on the grant date. The options shall vest as follows: 1,400 options shall vest on the grant date, 1,400 options shall vest on September 6, 2023, 1,400 options shall vest on March 6, 2024, 1,400 options shall vest on March 6, 2025, in each case provided Ms. Huffman has remained in continuous employment with us through such dates.

52

The Executive Employment Agreement is terminable at any time by us and upon 60 days' notice by Ms. Huffman. Upon separation for any reason Ms. Huffman shall receive her base salary accrued through the date of termination, and any vested rights and benefits provided under our employee benefit plans and programs. In addition, if Ms. Huffman's separation from employment is terminated by us without Cause or for non-renewal by us after the end of the Initial Term and Ms. Huffman signs a full general release then we would be obligated to pay Ms. Huffman six months of her annual base salary as severance plus any earned but unpaid Performance Bonus.

If Ms. Huffman's employment is terminated by us without Cause during the period of 30 days following a Change in Control and Ms. Huffman signs a full general release then we would be obligated to pay Ms. Huffman six months of her annual base salary as severance, any earned, accrued but unpaid bonus Performance Bonus and Ms. Huffman's Performance Bonus for the year of the Change in Control at target level of performance. Additionally, with any such termination Ms. Huffman's stock options or other stock awards under our 2021 Equity Incentive Plan which are not vested shall vest as of her termination date. Under the Executive Employment Agreement, "Change in Control" is defined as a transaction or series of transactions which constitutes a sale of control of the Company, a change in effective control of the Company, or a sale of all or substantially all of our assets, or a transaction which qualifies as a "change in ownership" or "change in effective control" of the Company or a "change in ownership of substantially all of the assets" of the Company under the standards set forth in Treasury Regulation section 1.409A-3(i)(5).

In the Executive Employment Agreement Ms. Huffman has agreed to duties of non-disclosure of Confidential Information, non-competition and non-solicitation and Company ownership of developments provisions.

Tax and Accounting Implications

Deductibility of Executive Compensation

The Compensation Committee takes into consideration the tax consequences of compensation to the named executive officers, but tax considerations are not a significant part of our Company's compensation policy.

Accounting for Stock-Based Compensation

We account for stock-based compensation in accordance with the requirements of FASB ASC Topic 718. This accounting treatment has not significantly affected our executive compensation decisions.

Clawbacks

In order to further align management's interests with those of shareholders and to support the Company's governance practices, the Board of Directors adopted a recoupment policy applicable to annual bonuses and other short-term and long-term incentive compensation based on financial targets ("Incentive Compensation") received by current and former executive officers of the Company and such other senior executives/employees of the Company who may from time to time be deemed subject to the policy by the Board of Directors ("Covered Executive"). The policy provides that if, as a result of a restatement of the Company's financial statements due to the Company's material noncompliance with any financial reporting requirement under the securities laws, a Covered Executive received more Incentive Compensation than the Covered Executive would have received absent the incorrect financial statements, the Company shall recover said excess Incentive Compensation (defined as the excess of (i) the actual amount of Incentive Compensation paid to the Covered Executive over (ii) the Incentive Compensation that would have been paid based on the restated financial results during the three-year period preceding the date on which the Company is required to prepare such restatement). The policy also provides that if the Board of Directors makes a determination in its sole discretion that a Covered Executive engaged in Misconduct (as defined below), the Board of Directors may require reimbursement or forfeiture of all or part of the Incentive Compensation received by the Covered Executive. The Board of Directors may use its judgment in determining the amount to be recovered. Misconduct is defined as (i) conviction of a felony, (ii) material breach of any agreement with the Company, (iii) material breach of Directors has determined that recoupment is appropriate.

53

Consideration of Stockholder Advisory Vote on Executive Compensation

The Compensation Committee also expects to consider the results of our stockholder advisory vote on executive compensation. Our shareholders have historically voted in favor of the compensation of our named executive officers and, at our 2024 Annual Shareholder Meeting, 81.1% of the shares represented in person or by proxy voted in favor of the program. In light of these results, the Compensation Committee has determined to substantially continue the executive compensation program. The Board of Directors determined that shareholder advisory votes on executive compensation will be submitted to our shareholders annually until the next required advisory vote on the frequency of conducting advisory votes on executive compensation.

Summary Compensation Table

The following table sets forth the aggregate compensation in 2024 and 2023 for services in all capacities paid or accrued by the Company to our most highly compensated officer who earned more than \$100,000 in total salary and bonus during the fiscal year ended December 31, 2024, as well as two former executive officers (the "Named Executive Officers").

Name and principal position				Stock Awards	Option Awards	All Other Compensation	
Name and principal position	Year	Salary	Bonus(1)	(2)	(2)	(3)	Total
Kimberly Murphy	2024	\$ 53,750	\$ -	\$ -	\$ 10,562	\$ 216,612	\$ 280,924
Former Chief Executive Officer and President	2023	\$ 430,000	\$ 65,000	\$ 84,250	\$ -	\$ 12,900	\$ 592,150
Janet Huffman	2024	\$ 250,000	\$ 75,000	\$ -	\$ 31,200	\$ 7,500	\$ 363,700
Chief Financial Officer, Interim Chief Executive Officer	2023	\$ 208,333	\$ 130,000	\$ 50,550	\$ 27,400	\$ 4,063	\$ 420,346
Joseph Redmond	2024	\$ 397,126	\$ -	\$ -	\$ 39,000	\$ 28,015	\$ 464,141
Former President and Interim Principal Executive Officer	2023	\$ -	\$ -	\$ -	\$ 343,800	\$ -	\$ 343,800

- 1) The amounts in this column represent amounts earned pursuant to our Performance-Based Bonus plans. Amounts earned in 2023 were paid in January 2024 and the amount earned in 2024 was paid in February 2025.
- (2) The amounts in this column represent the aggregate grant date fair value computed in accordance with Financial Accounting Standards Board Accounting Standards Codification, Topic 718, Compensation—Stock Compensation (ASC 718). See Notes 2 and 8 of Notes to Consolidated Financial Statements for additional information. On August 8, 2023, Ms. Murphy and Ms. Huffman received restricted stock awards, under the Company's 2021 Equity Incentive Plan, of 25,000 and 15,000 shares, respectively, with a grant price of \$3.37. The restricted stock awards vested at 20,000 shares immediately for Ms. Murphy with the remaining 5,000 shares to vest over six months. The restricted stock awards vested at 10,000 shares immediately for Ms. Huffman with the remaining 5,000 shares to vest over six months.
- (3) Amounts in this column for Ms. Murphy, Ms. Huffman and Mr. Redmond represent our matching contributions to our Simple IRA retirement plan of \$1,612, \$7,500 and \$11,515, respectively. In addition, the amounts in this column reflect severance payments. In 2024, Ms. Murphy and Mr. Redmond received severance of \$215,000 and \$16,500 respectively.

The Compensation Committee believes that our future success depends, in large part, upon our ability to maintain a competitive position in attracting, retaining and motivating key personnel. The Compensation Committee utilizes the 2021 Equity Incentive Plan to provide incentives to employees. We do not have any separate long-term incentive plans that provide compensation intended to serve as incentives for performance other than awards contemplated under, or pursuant to, our 2021 Equity Incentive Plan.

54

Outstanding Equity Awards

The following table provides information concerning outstanding equity awards as of December 31, 2024:

	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option	exercise price (s)	Option expiration date
Kim Murphy Former President and Chief Executive Officer	27,083		\$	0.48(3)	3/11/2025
Janet Huffman, Chief Financial	80,500		\$.048	9/19/2034
Officer and Interim Principal Executive Officer	5,600	1,400(2)	\$	4.00	3/7/2023
Joseph Redmond, Former	100,000		\$	0.48(3)	3/16/2025
President	56,250		\$	5.37(3)	3/16/2025

- 1) Represents awards that are time vested with each award vesting evenly on an annual basis over three years, subject to earlier vesting upon a change in control as defined in the award agreements.
- 2) Represents awards that are time vested with each award vesting evenly on a semi-annual basis over two years, subject to earlier vesting upon a change in control as defined in the award agreements.
- 3) Ms. Murphy and Mr. Redmond's vested options will expire 90 days from their employment termination dates -3/11/25 and 3/16/25, respectively.

55

Pay Versus Performance Table

As required by Section 953(a) of the Dodd-Frank Act and Item 402(v) of Regulation S-K, we are providing the following information about the relationship between executive compensation and certain financial performance of our Company. The disclosure included in this section is prescribed by SEC rules and does not necessarily align with how the Company or our Compensation Committee view the link between the Company's performance and the pay of our principal executive officers ("**PEOs**") and our non-PEO named executive officers ("**NEOs**").

The following table sets forth information concerning the compensation of our PEOs and our non-PEO NEOs in comparison to certain performance metrics for each of the fiscal years ending December 31, 2024 and December 31, 2023. The use of the term "compensation actually paid" ("CAP") is required by the SEC's rules. Per SEC rules, CAP was calculated by adjusting the Summary Compensation Table Total values for the applicable year as described in the footnotes to the table.

Year(1)	Con Tabl PEO Mu Micha	ummary npensation e Total for (Kimberly urphy and el Redmond) () (1) (2)	actu	mpensation ally Paid to EO (\$)(3)	Cor Tab Non-	nge Summary mpensation le Total for PEO Named titive Officers (\$) ⁽²⁾	Cor Actu Non-	Average mpensation ally Paid to PEO Named ative Officers (\$)(3)	Fix Investm Total	ne of Initial xed \$100 nent Based on Shareholder rurn (\$)(4)	Income(\$)(in ousands) (5)
2024	\$	745,065	\$	279,699	\$	275,947	\$	128,500	\$	(18)	\$ (1,056,792)
2023	\$	592.150	\$	180 483	S	140 115	\$	276 620	S	14	\$ (2.065.570)

- (1) Kimberly Murphy previously served as our PEO. Our NEOs for 2024 were, Redmond and Janet Huffman.
- (2) Amounts in this column represent the "Total" column set forth in the Summary Compensation Table ("SCT"). See the footnotes to the SCT for further detail regarding the amounts in these columns.

- (3) The dollar amounts reported in these columns represent the amounts of "compensation actually paid." These amounts are computed in accordance with Item 402(v) of Regulation S-K by deducting and adding the following amounts from the "Total" column of the SCT (pursuant to SEC rules, fair value at each measurement date is computed in a manner consistent with the fair value methodology used to account for share-based payments in our financial statements under GAAP).
- (4) The shareholder return is based on comparing the stock price from the end of one fiscal period to the end of the subsequent fiscal period and determining the percentage that the initial investment has increased or decreased over that period.
- (5) The net income is derived from the GAAP approach of subtracting net expenses from net revenues to arrive at net income.

56

The following tables set forth the adjustments made during each year represented in the Pay Versus Performance Table to arrive at compensation "actually paid" to our NEO's during each of the years in question:

	PEO: Redmond				Non-PEO NEOs			
		2024		2023	2024		2023	
Summary Compensation Table	\$	464,141	\$	592,150	\$ 322,312	\$	314,702	
Deduct: Amounts Reported Under the "Stock Awards"		-		(84,250)	-		(16,833)	
Deduct: Amounts Reported Under the "Option Awards"		(39,000)		-	(20,881)		(123,407)	
Add: Fair Value of Awards that Remain Unvested as of year end		-		-	(10,942)		69,492	
Add: Fair Value of Awards Granted during year that vest during year		(6,454)		9,337	2,087		67,013	
Add/(Deduct): Change in Fair Value from Prior Year-end to current Year-end of Awards Granted prior to year that were Outstanding and Unvested as of								
year end		(202,378)		-	(10,942)		-	
Add/(Deduct): Change in Fair Value from Prior Year-end to vesting date of Awards granted prior to year that were Outstanding and Unvested as of year								
end		(96,533)		-	(6,591)		-	
Deduct: Fair Value of Awards Granted Prior to year that were Forfeited during								
year		(4,663)		-	-		-	
Add: Dividends or Other Earnings Paid during year prior to Vesting Date of								
Award		-		-	-		-	
Total Compensation Actually Paid	\$	115,114		517,237	\$ 275,043	\$	310,966	

Pay Versus Performance Narrative Disclosure

In accordance with Item 402(v) of Regulation S-K, we are providing the following descriptions of the relationships between information presented in the Pay Versus Performance table and each of total shareholder return ("TSR") and net loss.

We utilize several performance measures to align executive compensation with our performance. As described in more detail above in the section"Other Policies and Considerations - Employment Contracts and Change in Control Arrangements," part of the compensation our NEOs are eligible to receive consists of annual performance-based bonuses that are designed to provide appropriate incentives to our executives to achieve defined annual corporate goals and to reward our executives for individual achievement towards these goals. Performance measures with respect to the performance bonuses include the Company's share performance.

With respect to net income, specifically, because we are not a commercial-stage company, we did not have any revenue during the periods presented, other than revenue associated with grants. Consequently, we do not consider net loss as a performance measure for our executive compensation program.

57

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS

The following table sets forth information about beneficial ownership of our Common Stock as of March 21, 2025 (unless otherwise noted) by (i) each shareholder that has indicated in public filings that the shareholder beneficially owns more than five percent of the Common Stock, (ii) each of the Company's directors and named officers and (iii) all directors and officers as a group. Except as otherwise noted, each person listed below, either alone or together with members of the person's family sharing the same household, had, to our knowledge, sole voting and investment power with respect to the shares listed next to the person's name.

Name and address (1)	Number of shares beneficially owned	Percentage of ownership (2)
Directors and officers		3 11 11 12 11 P
Robert C. Koski (3)	134,401	*
Charles L. Pope (4)	143,565	*
Dr. Alan Dunton (5)	109,054	*
Dr. Frederick W. Telling (6)	121,067	*
Bruce Cassidy (7)	404,830	1.8%
Janet Huffman (8)	102,000	*
Kimberly Murphy (9)	25,000	*
John Gandolfo (10)	50,102	*
(All Directors and officers as a group 6 persons)	1,090,019	4.9%

- * Beneficial ownership percentage is less than 1%.
- (1) Except as indicated, the address of the person named in the table is c/o Oragenics, Inc., 1990 Main Street Suite 750, Sarasota, Florida 34236.
- (2) In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options or warrants held by that person that are currently exercisable or will become exercisable within 60 days after March 21, 2025, are deemed outstanding, while the shares are not deemed outstanding for purposes of computing percentage ownership of any other person. Except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock held by them. Applicable percentage ownership is based on 21,475,289 shares of common stock outstanding as of March 21, 2025, an admission of beneficial ownership of those shares.
- (3) The share amounts include: (i) 14,334 shares held by the Koski Family Limited Partnership ("KFLP") of which Mr. Koski is a general partner; (ii) 5,000 shares acquired by the KFLP upon conversion of Series B Convertible Preferred Stock; (iii) 4,033 shares able to be acquired by the KFLP upon exercise of warrants; (iv) 27,940 shares owned directly by Mr. Koski; and (v) 83,094 shares able to be acquired pursuant to stock options.

- (4) Includes: 118,094 shares able to be acquired pursuant to stock options.
- (5) Includes: (i) 83,094 shares able to be acquired pursuant to stock options, and (ii) 337 shares able to be acquired upon the exercise of warrants.
- (6) Includes: (i) 84,652 shares able to be acquired pursuant to stock options, and (ii) 1,667 shares able to be acquired upon the exercise of warrants.
- (7) Includes 50,102 shares able to be acquired upon the exercise of stock options. Excel Family Partners, LLLP ("Excel") acquired 354,728 shares in a private placement on August 4, 2023. Fortress Holdings, LLC ("Fortress") serves as manager for Excel and Mr. Cassidy serves as a manager for Fortress.
- (8) Includes: 15,000 shares owned directly by Ms. Huffman; and 87,000 shares able to be acquired upon the exercise of stock options.
- (9) Includes: 25,000 shares owned directly by Ms. Murphy.
- (10) Represents shares able to be acquired upon the exercise of stock options.

58

Securities Authorized for Issuance under Equity Compensation Plans

The following table sets forth certain information as of December 31, 2024 with respect to the 2021 Equity Incentive Plan as amended (the "2021 Plan"):

	Number of Securities to be Issued Upon Exercise of Outstanding	Exe	Veighted- Average rcise Price of utstanding	Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in
Plan Category	Options (A)	0	ptions (B)	Column (A)) (C)
Equity compensation plans approved by stockholders:				
2021 Equity Incentive Plan (1)	993,753	\$	4.65	2,032,914
Equity compensation plans not approved by stockholders	_		_	_
Total:	993,753	\$	4.65	2,032,914

Number of

(1) Our shareholders approved an amendment to our 2021 Equity Incentive Plan (the "2021 Plan") at our 2024 Annual Meeting in December 2024 which provided for an additional two million shares of our common stock to be added to the available shares, increasing the total number of common shares available for issuance under the 2021 Plan from 1,166,667 shares to 3,166,667 shares.

59

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

SEC rules require us to disclose any transaction or currently proposed transaction in which we are a participant and in which any related person has or will have a direct or indirect material interest involving an amount that exceeds the lesser of \$120,000 or one percent (1%) of the average of the Company's total assets as of the end of last two completed fiscal years. A related person is any executive officer, Director, nominee for Director, or holder of 5% or more of the Company's Common Stock, or an immediate family member of any of those persons.

The Audit Committee of the Board of Directors (or, to the extent applicable, our disinterested directors) is responsible for reviewing all transactions between the Company and any officer or Director of the Company or any entity in which an officer of Director has a material interest. Any such transactions must be on terms no less favorable than those that could be obtained on an arms-length basis from independent third parties.

Indemnification

The Company provides indemnification for its directors and officers so that they will be free from undue concern about personal liability in connection with their service to the Company. Under the Company's Bylaws, the Company is required to indemnify its directors and officers to the full extent provided by law then in effect.

DELINQUENT SECTION 16(a) REPORTS

Section 16(a) of the Securities Exchange Act of 1934 requires the Company's officers and Directors and any persons who beneficially own more than ten percent of the Company's Common Stock to file reports of ownership and changes in ownership of such securities with the Securities and Exchange Commission Officers, Directors and beneficial owners of more than ten percent of the Common Stock are required by applicable regulations to furnish the Company with copies of all Section 16(a) forms they file. Based solely on its review of copies of forms furnished to the Company and written representations from the executive officers, Directors and holders of ten percent or more of the Company's Common Stock, the Company believes, all person's subject to the reporting requirements with regard to the Common Stock complied with the applicable filing requirements during 2024.

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries, such as brokers, to satisfy the delivery requirements for Notices of Internet Availability of Proxy Materials or other Annual Meeting materials with respect to two or more shareholders sharing the same address by delivering a single Notice of Internet Availability of Proxy Materials or other Annual Meeting materials addressed to those shareholders. This process, which is commonly referred to as "householding," potentially means extra convenience for shareholders and cost savings for companies.

This year, a number of brokers with account holders who are Oragenics shareholders will be "householding" the Company's Proxy Materials. A single Notice of Internet Availability of Proxy Materials will be delivered to multiple shareholders sharing an address unless contrary instructions have been received from the affected shareholders. Once you have received notice from your broker that they 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 Notice of Internet Availability of Proxy Materials, please notify your broker or us. Direct your written request Oragenics, Inc., 1990 Main St. Suite 750, Sarasota, Florida 34236, Attention: Corporate Secretary. Shareholders who currently receive multiple copies of the Notices of Internet Availability of Proxy Materials at their addresses and would like to request "householding" of their communications should contact their brokers.

OTHER MATTERS

Interim Corporate Mailings

In accordance with National Instrument 54-101 of the Canadian Securities Administrators, registered and beneficial shareholders of the Company may elect annually to receive interim corporate mailings, including interim financial statements of the Company, if they so request at the address below.

Availability of Annual Report on Form 10-K

Accompanying this Proxy Statement is a copy of the Company's Annual Report on Form 10-K for 2024 Shareholders who would like additional copies of the Annual Report on Form 10-K should direct their requests in writing to:

Oragenics, Inc. 1990 Main St. Suite 750 Sarasota, Florida 34236 Attention: Janet Huffman, Secretary

Miscellaneous

Management does not know of any matters to be brought before the Annual Meeting of Shareholders other than as described in this Proxy Statement. Should any other matters properly come before the Annual Meeting of Shareholders, the persons designated as proxies will vote in accordance with their best judgment on such matters.

BY ORDER OF THE BOARD OF DIRECTORS.

Tampa, Florida April 1, 2025. JANET HUFFMAN
JANET HUFFMAN
Secretary

61

APPENDIX A

ARTICLES OF AMENDMENT TO THE AMENDED AND RESTATED ARTICLES OF INCORPORATION ORAGENICS, INC.

(Document Number P96000091949)

Oragenics, Inc. (the "Corporation"), does hereby certify that the Corporation's Articles of Incorporation originally filed with the Florida Department of State on November 6, 1996, as amended and restated on May 8, 2002, as further amended by those certain amendments filed October 28, 2009, September 22, 2010, August 30, 2011, June 2, 2014, January 10, 2017, May 8, 2017, November 8, 2017, December 5, 2017, December 29, 2017, January 16, 2018, June 22, 2018, July 13, 2018, February 25, 2022, January 11, 2023, July 21, 2023, December 4, 2023, December 14, 2023 and March 14, 2025 are hereby further amended pursuant to Section 607.1006 of the Florida Business Corporation Act of the State of Florida.

The Corpora	tion does hereby	further certify	that this amendment	was duly	adopted by th	e Corporation's	Board of	Directors and	by the	shareholders of the
Corporation in accordance	e with the applica	able provisions	of Section 607.0725	of the Flo	rida Business (Corporation Act	of the Sta	te of Florida.	The Cor	poration's Board of
Directors adopted this an	nendment on	, 2	2025 and recommend	ed that thi	s amendment l	be adopted by the	he Corpor	ation's shareho	olders. T	his amendment was
adopted by the sharehold	ers on May 2, 202	5, and the num	ber of votes cast for	he amendi	nent by the sha	areholders was s	ufficient f	or approval. T	his amen	dment shall become
effective on	, 2025 at	5:00 p.m. (the	'Effective Time").							

The Amended and Restated Articles of Incorporation of the Corporation, as amended, are amended as follows:

The first paragraph of Article II of the Amended and Restated Articles of Incorporation, as amended, shall be deleted in its entirety and replaced with the following:

"Capital Stock: The aggregate number of shares of all classes of capital stock which this Corporation shall have authority to issue is 400,000,000 shares, consisting of (i) 350,000,000 shares of common stock, par value \$0.001 per share ("Common Stock") and (ii) 50,000,000 shares of preferred stock, no par value ("Preferred Stock")."

At the Effective Time, each [___] ([_]) shares of the Corporation's common stock, par value \$0.001 per share, issued immediately prior to the Effective Time (the "Old Common Stock") (including the number of shares of common stock issuable upon exercise or conversion of all issued and outstanding, options, warrants and convertible securities of every kind, including all options, shares outstanding and authorized for issuance under the Corporation's 2021 Equity Incentive Plan) will automatically and without any action on the part of the respective holders thereof, be combined and reclassified into one (1) share of common stock, par value \$0.001 per share (the "New Common Stock") (and such combination and conversion, the "Reverse Stock Split"). Notwithstanding the immediately preceding sentence, no fractional shares of New Common Stock shall be issued to the holders of record of Old Common Stock in connection with the Reverse Stock Split and each fractional share resulting from the Reverse Stock Split shall be automatically rounded up to the nearest whole number. Each stock certificate that, immediately prior to the Effective Time, represented shares of Old Common Stock shall, from and after the Effective Time, automatically and without the necessity of presenting the same for exchange, represent that number of whole shares of New Common Stock into which the shares of Old Common Stock shall receive, upon surrender of such certificate, a new certificate representing the number of whole shares of New Common Stock into which the shares of Old Common Stock represented by such certificate shall have been reclassified.

The amendment to the Amended and Restated Articles of Incorporation does not adversely affect the rights or preferences of the holders of outstanding shares of any class or series. The remainder of the Amended and Restated Articles of Incorporation, as amended, shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the undersigned, the Chief Financial Officer of the Corporation, has executed these Articles of Amendment as of	, 202	25.
---	-------	-----

Janet Huffman,	Chief Financial Officer	

APPENDIX B

ARTICLES OF AMENDMENT TO THE AMENDED AND RESTATED ARTICLES OF INCORPORATION ORAGENICS, INC.

(Document Number P96000091949)

Oragenics, Inc. (the "Corporation"), does hereby certify that the Corporation's Articles of Incorporation originally filed with the Florida Department of State on November 6, 1996, as amended and restated on May 8, 2002, as further amended by those certain amendments filed October 28, 2009, September 22, 2010, August 30, 2011, June 2, 2014, January 10, 2017, May 8, 2017, November 8, 2017, December 5, 2017, December 29, 2017, January 16, 2018, June 22, 2018, July 13, 2018, February 25, 2022, January 11, 2023, July 21, 2023, December 4, 2023, December 14, 2023 and March 14, 2025 are hereby further amended pursuant to Section 607.1006 of the Florida Business Corporation Act of the State of Florida.

The Corporation does hereby further certify that this amendment was duly adopted by the Corporation's Board of Directors and by the shareholders of the Corporation in accordance with the applicable provisions of Section 607.0725 of the Florida Business Corporation Act of the State of Florida. The Corporation's Board of Directors adopted this amendment on March 18, 2025 and recommended that this amendment be adopted by the Corporation's shareholders. This amendment was adopted by the shareholders on May 2, 2025, and the number of votes cast for the amendment by the shareholders was sufficient for approval. This amendment shall become effective on May 2, 2025, at 5:00 p.m. (the "Effective Time").

The Amended and Restated Articles of Incorporation of the Corporation, as amended, are amended as follows:

The first paragraph of Article II of the Amended and Restated Articles of Incorporation, as amended, shall be deleted in its entirety and replaced with the following:

"Capital Stock: The aggregate number of shares of all classes of capital stock which this Corporation shall have authority to issue is 400,000,000 shares, consisting of (i) 350,000,000 shares of common stock, par value \$0.001 per share ("Common Stock") and (ii) 50,000,000 shares of preferred stock, no par value ("Preferred Stock")."

The remainder of the Amended and Restated Articles of Incorporation, as amended, shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the undersigned, the Chief Financial Officer of the Corporation, has executed these Articles of Amendment as of _______, 2025.

Janet Huffman, Chief Financial Officer

B-1

APPENDIX C

THIRD AMENDMENT TO ORAGENICS, INC. 2021 EQUITY INCENTIVE PLAN

This Plan Amendment to the 2021 Equity Incentive Plan (the 'Plan Amendment') is made pursuant to Section 13 of the 2021 Incentive Plan (the '2021 Plan').

Recitals:

WHEREAS, the 2021 Plan was adopted by the Company and approved by the shareholders on February 25, 2022; and

WHEREAS, 10,000,000 shares were originally authorized to be issued under the 2021 Incentive Plan;

WHEREAS, the Company effected a 1-for-60 reverse split of the Company's authorized shares of Common Stock and issued and outstanding shares of Common Stock, including shares under the 2021 Plan, with an effective date of January 20, 2023 (the "Reverse Stock Split");

WHEREAS, after the Reverse Stock Split, the shares available for issuance under the 2021 Plan was 166,667 shares of Common Stock;

WHEREAS, on December 14, 2023, the Company's shareholders approved an amendment (the 'First Amendment') to increase the shares available under the 2021 Plan by 1,000,000 shares; and

WHEREAS, on December 11, 2024, the Company's shareholders approved an amendment (the 'Plan Amendment') to increase the shares available under the 2021 Plan by 2,000,000 shares; and

WHEREAS, in connection with a proposed Reverse Stock Split, the Board of Directors believes it would be in the best interest of the Company and its shareholders to set the authorized shares available under the 2021 Plan to 3,166,667 shares, after any Reverse Stock Split is enacted.

NOW THEREFORE, Section 2(a) titled "Share reserve" is hereby amended and restated as follows:

(a) Share Reserve. Subject to adjustment in accordance with Section 2(d) and any adjustments as necessary to implement any Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Awards will not exceed the sum of (i) 3,166,667 new shares, plus (ii) the Prior Plan's Available Reserve; plus, (iii) the number of Returning Shares, if any, as such shares become available from time to time.

All other terms and conditions of the 2021 Plan not otherwise modified hereby shall remain in full force and effect. The Third Amendment was approved by the Board of Directors on March 18, 2025 and submitted to the Company's shareholders for approval in connection with the Company's Annual Meeting of Shareholders on May 2, 2025.

C-

APPENDIX D

TO BE HELD AT THE OFFICES OF SHUMAKER, LOOP, & KENDRICK, BANK OF AMERICA PLAZA, 101 E KENNEDY BLVD SUITE 2800, TAMPA, FL 33602

ON MAY 2, 2025, AT 10:00 A.M., EASTERN TIME.

The undersigned shareholder of Oragenics, Inc.(the "Company"), Tampa, Florida, hereby constitutes and appoints Janet Huffman with authority to act without the others, as attorneys and proxies for the undersigned, with full power of substitution, to attend, act and vote the number of shares of Common Stock which the undersigned would be entitled to vote if personally present at the Annual Meeting of Shareholders (the "Annual Meeting") or at any adjournments thereof, upon the proposals described in the Notice to the Holders of Common Stock of the Annual Meeting and Proxy Statement (collectively, the "Proxy Materials"), both dated April 1, 2025, the receipt of which is acknowledged, in the manner specified below. The proxy, in her discretion, is further authorized to vote on any shareholder proposals not submitted to the Company for a vote of the shareholders at the Annual Meeting within a reasonable time prior to the mailing of the Proxy Materials, as well as on the election of any person as a Director if a Director nominee named in Proposal 1 is unable to serve or for good cause will not serve, and on matters incident to the conduct of the Annual Meeting. At the present time, the Board of Directors knows of no other business to be presented to a vote of the shareholders at the Annual Meeting.

This Proxy, when properly executed, will be voted in the manner directed by the undersigned shareholder If no direction is made, this Proxy will be voted FOR the election of the Directors listed on the reverse side and ONE YEAR for Proposal 2 and FOR Proposals 3, 4, 5, 6, 7 and, if the number of shares of Common Stock and Series G Mirroring Preferred Stock present or represented by proxy at the Annual Meeting and voting "FOR" the adoption of Proposal 4 or Proposal 5 are insufficient, 8.

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS OF ORAGENICS, INC. AND MAY BE REVOKED BY THE SHAREHOLDER PRIOR TO ITS EXERCISE. The undersigned reserves the right to revoke this Proxy at any time prior to the Proxy being voted at the Annual Meeting. The Proxy may be revoked by delivering a signed revocation to the Company at any time prior to the Annual Meeting, by submitting a later-dated Proxy, or by attending the Annual Meeting in person and casting a ballot. The undersigned hereby revokes any Proxy previously given to vote such shares at the Annual Meeting.

Further information about the Annual Meeting and how to vote are contained in the Proxy Statement in the section titled Questions and Answers about the Proxy Materials and Voting."

> Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Shareholders to be held on May 2, 2025. The Notice of Meeting, Proxy Statement, Annual Report and Proxy Card are Available at: https://web.viewproxy.com/oragenics/2024

> > D-1

PROXY

A. PROPOSALS - The Board of Directors recommends a vote FOR all the nominees listed, ONE YEAR for Proposal 2 and FOR Proposals 3, 4, 5, 6, 7 and, if the

non Stock and Series G Mirr Proposal 5 are insufficient, 8.	oring Preferred Stock present or represente	d by proxy at the Annual Meeting and voting "FOF	₹" the
the proposal to elect the follow	wing Directors to serve until the indicated Annu	nal Meeting of Shareholders of the Company and until t	their
For ☐ For ☐ For ☐ For ☐	Withhold Authority □		
equency of Future Advisory Vo	tes on Executive Compensation.		
☐ Every 2 Years	☐ Every 3 Years	☐ Abstain	
ve compensation.			
☐ Against	☐ Abstain		
☐ Against	☐ Abstain		
			000
☐ Against	☐ Abstain		
☐ Against	☐ Abstain		
on of Cherry Bekaert LLP as th	e Company's independent auditors for the year	ending December 31, 2025.	
☐ Against	☐ Abstain		
			ıt or
☐ Against	☐ Abstain		
	Proposal 5 are insufficient, 8. If the proposal to elect the follows the proposal to elect the formula for the proposal to elect the formula	Troposal 5 are insufficient, 8. The proposal to elect the following Directors to serve until the indicated Annual Proposal to elect the following Directors to serve until the indicated Annual Meeting and voting "For Withhold Authority For Withhold Authority For Withhold Authority Withhold Authority For For	the proposal to elect the following Directors to serve until the indicated Annual Meeting of Shareholders of the Company and until to the proposal to elect the following Directors to serve until the indicated Annual Meeting of Shareholders of the Company and until to the Company and until to the Company's Board of Directors, in its discretion at any time within one year after shareholder approval is obtained, to et ing shares of the Company's Common Stock at a ratio of not less than one-for-five (1:5) and not greater than one-for-fifty (1:50), with mpany's Board. Against

B. Authorized Signatures -	- This section mus	t be completed for	vour vote to be counted.	— Date and Sign Below.

Please sign exactly as your name appears on your stock certificate and date. Where shares are held jointly, each shareholder should sign. When signing as executor, administrator, trustee, or guardian, please give full title as such. If a corporation, please sign in full corporate name by president or other authorized officer. If a partnership, please sign in full partnership name by authorized person.

Shares Held:			
Signature of Shareholder			
Signature of Shareholder (If held jointly)	_		
Dated:	-		
THIS PROXY FORM IS NOT VALID UNLESS IT IS SIG	ENED.		
	D-3		