

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

Filed by the Registrant
Filed by a Party other than the Registrant

Check the appropriate box:

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

XENETIC BIOSCIENCES, INC.
(Name of Registrant as Specified In Its Charter)

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

Payment of Filing Fee (Check the appropriate box)

- No fee required.
 Fee 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.

XENETIC BIOSCIENCES, INC.
945 Concord Street
Framingham, Massachusetts 01701

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To Be Held On December 7, 2022

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of Stockholders of **Xenetic Biosciences, Inc.**, a Nevada corporation (the "Company" or "Xenetic"). The meeting will be held on Wednesday, December 7, 2022 at 9:30 a.m. Eastern Time by means of a live virtual-only on-line webcast for the following purposes:

1. To elect the Board's nominees, Grigory G. Borisenko, James E. Callaway, Firdaus Jal Dastoor, Jeffrey F. Eisenberg, Roger Kornberg, Adam Logal and Alexey Vinogradov, to the Board of Directors to serve until the next annual meeting and their successors are duly elected and qualified.
2. To ratify the selection by the Audit Committee of Marcum LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2022.
3. To approve, by non-binding advisory vote, the resolution approving the named executive officer compensation ("Say on Pay").
4. To approve an amendment to the Company's Articles of Incorporation to increase the authorized shares of the Company's common stock.
5. To conduct any other business properly brought before the meeting.

These items of business are more fully described in the Proxy Statement accompanying this Notice.

The record date for the Annual Meeting is October 10, 2022. Only stockholders of record at the close of business on that date may vote at the meeting or any adjournment thereof.

**Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders
to Be Held on Wednesday, December 7, 2022 at 9:30 a.m. local time
by means of a live virtual-only on-line webcast.**

The Proxy Statement, the Notice of the Annual Meeting and our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as amended, are available at www.xeneticbio.com.

By Order of the Board of Directors

James Parslow
Secretary

You are cordially invited to attend the virtual-only Annual Meeting via the Internet by means of a live webcast. Whether or not you expect to participate in the virtual-only Annual Meeting, please complete, date, sign and return the enclosed proxy, or vote over the telephone or the internet as instructed in these proxy materials, as promptly as possible in order to ensure your representation at the virtual-only Annual Meeting. A return envelope (which is postage prepaid if mailed in the United States) has been provided for your convenience. Even if you have voted by proxy, you may still participate and vote at the virtual-only Annual Meeting by visiting <http://www.virtualshareholdermeeting.com/XBIO2022> and using your control number assigned to you on your enclosed proxy card. 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 meeting, you must obtain a proxy issued in your name from that record holder. To register and receive access to the virtual meeting, registered stockholders and beneficial stockholders will need to follow the instructions applicable to them provided in the enclosed proxy statement. We hope that you will be able to participate. Your feedback and your vote are very important to us.

Table of Contents

| | Page |
|---|------|
| QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING | 1 |
| Proposal 1 Election Of Directors | 8 |
| Information Regarding the Board of Directors and Corporate Governance | 11 |
| Independence of The Board of Directors | 11 |
| Board Leadership Structure | 11 |
| Role of the Board in Risk Oversight | 12 |
| Meetings of The Board of Directors | 12 |
| Anti-Hedging and Pledging Policy | 12 |
| Information Regarding Committees of the Board of Directors | 13 |
| Audit Committee | 13 |
| Compensation Committee | 14 |
| Nominating and Corporate Governance Committee | 15 |
| Stockholder Communications With The Board Of Directors | 17 |
| Code of Business Conduct and Ethics | 17 |
| Security Ownership of Certain Beneficial Owners and Management | 18 |
| Section 16(a) Beneficial Ownership Reporting Compliance | 20 |
| Proposal 2 Ratification of Selection of Independent Registered Public Accounting Firm | 21 |
| Executive Officers | 23 |
| Executive Compensation | 24 |
| Summary Compensation Table | 24 |
| Outstanding Equity Awards at Fiscal Year End | 25 |
| Employment Agreements with our Named Executive Officers | 26 |
| Equity Compensation Plan Information | 28 |
| Director Compensation | 29 |
| Proposal 3 Approval by Non-Binding Advisory Vote of the Resolution Approving Named Executive Officer Compensation | 30 |
| Proposal 4 Approval of the Common Stock Amendment | 31 |
| Transactions with Related Persons | 34 |
| Policy Regarding Related Party Transactions | 34 |
| Certain Related-Person Transactions | 34 |
| Householding of Proxy Materials | 37 |
| Other Matters | 38 |

XENETIC BIOSCIENCES, INC.
945 Concord Street
Framingham, Massachusetts 01701

**PROXY STATEMENT
FOR THE 2022 ANNUAL MEETING OF STOCKHOLDERS**

To Be Held On December 7, 2022

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

This proxy statement and the enclosed form of proxy are being sent to you because the Board of Directors of Xenetic Biosciences, Inc. (the “Company” or “Xenetic”) is soliciting your proxy to vote at the 2022 Annual Meeting of Stockholders, including at any adjournments or postponements thereof (the “Annual Meeting”). We intend to mail these proxy materials on or about October 18, 2022 to all stockholders of record entitled to vote at the Annual Meeting.

You are invited to attend the virtual Annual Meeting to vote on the proposals described in this proxy statement. However, you do not need to attend the virtual 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.

The information provided in the “question and answer” format below is for your convenience only and is merely a summary of the information contained in this proxy statement. You should read this entire proxy statement carefully. Information contained on, or that can be accessed through, our website is not intended to be incorporated by reference into this proxy statement and references to our website address in this proxy statement are inactive textual references only.

How do I register and attend the virtual-only Annual Meeting?

The meeting will be held on Wednesday, December 7, 2022 at 9:30 a.m. eastern time. All stockholders are invited to participate in the Annual Meeting. We have once again decided to forego the opportunity to meet with our stockholders in person this year to conduct the required annual business of the Company. Instead, the meeting will be held virtually over the Internet by means of a live audio webcast.

Only stockholders who owned common stock as of the close of business on October 10, 2022 will be entitled to attend the virtual meeting. Any stockholder wishing to attend the virtual-only Annual Meeting via the Internet can do so by following the instructions as applicable to the nature of your ownership of our common stock:

Stockholder of Record: Shares Registered in Your Name

If your shares are registered in your name with the Company’s transfer agent and you wish to attend the online-only virtual meeting, go to <http://www.virtualshareholdermeeting.com/XBIO2022>, enter the control number you received on your proxy card or notice of the meeting and follow the instructions.

1

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

Beneficial stockholders who wish to attend the online-only virtual meeting must obtain a legal proxy by contacting their account representative at the bank, broker, or other nominee that holds their shares and request your 16 digit control number. Beneficial shareholders who have a valid control number will be allowed to register to attend and participate in the online-only meeting at <http://www.virtualshareholdermeeting.com/XBIO2022>.

Stockholders participating in the virtual meeting will be in a listen-only mode and will not be able to speak during the webcast; however, in order to maintain the interactive nature of the virtual meeting, virtual attendees are able to:

- Vote using the online meeting website; and
- Submit questions or comments to the Company’s officers during the meeting via the virtual meeting webcast.

You will not be able to vote or submit questions unless you register for and log in to the virtual meeting website as described above.

Who can vote at the Annual Meeting?

Only stockholders of record at the close of business on October 10, 2022 will be entitled to vote at the Annual Meeting. On this record date, there were _____ shares of common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If on October 10, 2022 your shares were registered directly in your name with the Company’s transfer agent, Empire Stock Transfer, then you are a stockholder of record. As a stockholder of record, you may vote using the online meeting website at the virtual meeting or vote by proxy, as described below. Whether or not you plan to attend the virtual meeting, we urge you to fill out and return the enclosed proxy card or vote by proxy over the telephone or on the internet as instructed below to ensure your vote is counted.

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

If on October 10, 2022 your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer 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 stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the virtual Annual Meeting via the virtual meeting webcast, however, since you are not the stockholder of record, you may not vote your shares at or participate in the virtual meeting unless you request and obtain a valid proxy from your broker or other agent, as described below.

2

What am I voting on?

There are four matters scheduled for a vote:

- Election of seven directors;
- Ratification of the selection by the Audit Committee of Marcum LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2022;
- Approval, on an advisory, non-binding basis, of the compensation of our named executive officers; and
- To approve an amendment to the Company's Articles of Incorporation to increase the authorized number of shares of the Company's common stock (the "Common Stock Amendment").

What if another matter is properly brought before the meeting?

The Board of Directors knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote on those matters in accordance with their best judgment.

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 to be voted on, you may vote "FOR" or "AGAINST" or abstain from voting.

The procedures for voting are fairly simple:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote using the online meeting website during the Annual Meeting (as noted above), vote by proxy using the enclosed proxy card, vote by proxy over the telephone, or vote by proxy through the internet. Whether or not you plan to attend the virtual meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the virtual meeting and vote using our online meeting website even if you have already voted by proxy.

- To vote during the virtual Annual Meeting, register for and log in to <http://www.virtualshareholdermeeting.com/XBIO2022> as described above using your control number from the enclosed proxy card.
- To vote using the proxy card, simply mark, sign and date the enclosed proxy card and return it promptly in the envelope provided. If we receive your signed proxy card before the Annual Meeting, we will vote your shares as you direct.
- To vote over the telephone, dial 1-800-690-6903 using a touch-tone phone and follow the recorded instructions. You will be asked to provide the control number from the enclosed proxy card. Your telephone vote must be received by 11:59 p.m. Eastern Time on December 6, 2022 to be counted.
- To vote through the internet, go to www.proxyvote.com to complete an electronic proxy card. You will be asked to provide the control number from the enclosed proxy card. Your internet vote must be received by 11:59 p.m. Eastern Time on December 6, 2022 to be counted.

Internet proxy voting may be 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.

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

If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a voting instruction form with these proxy materials from that organization rather than from us. Simply complete and mail the voting instruction form to ensure that your vote is counted. Alternatively, you may vote by telephone or over the internet as instructed by your broker or bank. To vote using the online meeting website during the virtual Annual Meeting, you must obtain a valid control number from your broker, bank or other agent, as described above. Follow the instructions from your broker or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of October 10, 2022.

What happens if I do not vote?

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record and do not vote by completing your proxy card, by telephone, through the internet or by using the online meeting website during the virtual Annual Meeting, your shares will not be voted.

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

If you are a beneficial owner and do not instruct your broker, bank, or other agent how to vote your shares, the question of whether your broker or nominee will still be able to vote your shares depends on whether the particular proposal is deemed by applicable laws to be a "routine" matter. Brokers and nominees can use their discretion to vote "uninstructed" shares with respect to matters that are considered to be "routine," but not with respect to "non-routine" matters. Under applicable rules, "non-routine" matters are matters that may substantially affect the rights or privileges of stockholders, such as mergers, stockholder proposals, elections of directors (even if not contested), executive compensation (including any advisory stockholder votes on executive compensation and on the frequency of stockholder votes on executive compensation), and certain

corporate governance proposals, even if management-supported. Accordingly, your broker or nominee may not vote your shares on Proposal 1 and Proposal 3 without your instructions, but may vote your shares on Proposal 2 and Proposal 4 even in the absence of your instruction.

What if I return a proxy card or otherwise vote but do not make specific choices?

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, “FOR” the election of all seven nominees for director; “FOR” the ratification of Marcum LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2021; “FOR” the approval, on an advisory, non-binding basis, of the compensation of our named executive officers; and “FOR” the approval of the Common Stock Amendment to increase the authorized shares of the Company’s common stock by 50,000,000 shares. If any other matter is properly presented at the meeting, your proxyholder (one of the individuals named on your proxy card) will vote your shares using his best judgment.

4

Who is paying for this proxy solicitation?

We will pay for the entire cost of soliciting proxies. In addition to these proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

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?

Stockholder of Record: Shares Registered in Your Name

Yes. You can revoke your proxy by any of the following methods:

- You may submit another properly completed proxy card with a later date.
- You may grant a subsequent proxy by telephone or through the internet.
- You may send a timely written notice that you are revoking your proxy to our Corporate Secretary at 945 Concord Street, Framingham, Massachusetts 01701.
- You may attend the virtual Annual Meeting and vote using the online meeting website, as discussed above. Simply attending the virtual meeting will not, by itself, revoke your proxy.

Your most current proxy card or telephone or internet proxy is the one that is counted.

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

If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank.

5

When are stockholder proposals and director nominations due for next year’s Annual Meeting?

To be considered for inclusion in next year’s proxy materials, your proposal must be submitted in writing by _____, 2023 to our Corporate Secretary at 945 Concord Street, Framingham, Massachusetts 01701. However, if the date of the 2023 Annual Meeting of Stockholders is changed by more than 30 days from the date of the 2022 Annual Meeting, then the deadline will be a reasonable time before the Company begins to print and mail its proxy materials for the 2023 Annual Meeting. Upon determination by the Company that the date of the 2023 Annual Meeting will be advanced or delayed by more than 30 days from the date of the 2022 Annual Meeting, the Company will disclose that change in the earliest possible Quarterly Report on Form 10-Q, or if impracticable, any means reasonably calculated to inform stockholders. If you wish to submit a proposal (including a director nomination) at the meeting that is not to be included in next year’s proxy materials, you must do so by giving timely notice in writing to our Corporate Secretary and otherwise comply with the provisions of our Amended and Restated Bylaws. To be timely, our Amended and Restated Bylaws provide that we must have received the notice not less than 90 days or more than 120 days prior to the one-year anniversary of the date of the previous year’s Annual Meeting of Stockholders (the “Anniversary”); provided, however, that in the event that the date of next year’s Annual Meeting is more than 30 days before or more than 30 days after the Anniversary, notice must be delivered not earlier than the close of business on the 120th day prior to next year’s Annual Meeting and not later than the close of business on the later of (i) the 90th day prior to next year’s Annual Meeting or (ii) the close of business on the 10th day following the day on which public announcement of the date of next year’s Annual Meeting is first made by us. You are advised to review our Amended and Restated Bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations. In addition to satisfying the foregoing advance notice requirements under our Amended and Restated Bylaws, to comply with the universal proxy rules under the Exchange Act, stockholders who intend to solicit proxies in support of director nominees other than the Company’s nominees must provide notice that sets forth the information required by Rule 14a-19 under the Exchange Act no later than October 8, 2023.

How are votes counted?

Votes will be counted by the inspector of election appointed for the meeting, who will separately count, for the proposal to elect directors, votes “FOR,” “WITHHOLD” and broker non-votes and, with respect to other proposals, votes “FOR” and “AGAINST,” abstentions and, if applicable, broker non-votes. Except for Proposal 4, broker non-votes have no effect and will not be counted towards the vote total for any proposal. For Proposal 4, broker non-votes and abstentions will have the effect of a vote “AGAINST”.

What are “broker non-votes”?

If you are the beneficial owner of shares held in “street name,” your shares may constitute “broker non-votes.” Broker non-votes occur when a beneficial owner of shares held in

“street name” does not give instructions to the broker, bank or other nominee holding the shares as to how to vote. Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the broker, bank or other nominee holding the shares. If the beneficial owner does not provide voting instructions, the broker, bank or other nominee can still vote the shares with respect to matters that are considered to be “routine,” but cannot vote the shares with respect to “non-routine” matters. Under applicable rules that generally apply to all brokers, bank or other nominees, on voting matters characterized as “routine,” firms have the discretionary authority to vote shares for which their customers do not provide voting instructions. On non-routine proposals, such “uninstructed shares” may not be voted by such firms. Only Proposal 2 and Proposal 4 are considered “routine” matters for this purpose and brokers, banks or other nominees generally have discretionary voting power with respect to such proposals. Proposal 1 and Proposal 3 are not considered a routine matter, and without your instructions, your broker cannot vote your shares for the proposal.

How many votes are needed to approve each proposal?

For the election of directors, the seven nominees receiving the most “FOR” votes from the holders of shares present in person or represented by proxy and entitled to vote on the election of directors will be elected. Only votes “FOR” will affect the outcome. Broker non-votes will have no effect.

For Proposal 2, an affirmative “FOR” vote of a majority of the shares cast affirmatively or negatively for this proposal is required to ratify the selection of Marcum LLP as the Company’s independent registered public accounting firm for fiscal year ending December 31, 2021. If you mark your proxy to “ABSTAIN” from voting, it will have no effect. Broker non-votes will also have no effect.

6

For Proposal 3, an affirmative “FOR” vote of a majority of the shares cast affirmatively or negatively for this proposal is required to approve, on an advisory, non-binding basis, the compensation of our named executive officers. If you mark your proxy to “ABSTAIN” from voting, it will have no effect. Broker non-votes will also have no effect. Because the vote on the Say on Pay proposal is advisory, it will not be binding on the Board of Directors or the Company. However, the Compensation Committee will take into account the outcome of the Say on Pay vote when considering future executive compensation arrangements.

For Proposal 4, an affirmative “FOR” vote of stockholders that represent a majority of the voting power entitled to vote on the proposal is required to approve the Common Stock Amendment. Broker non-votes and abstentions will also have the effect of a vote “AGAINST” on the Common Stock Amendment.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding at least fifty percent (50%) of the outstanding shares entitled to vote are present at the Annual Meeting in person or represented by proxy. On the record date, there were _____ shares outstanding and entitled to vote. **Thus, the holders of _____ shares must be present in person or represented by proxy at the meeting to have a quorum.**

Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you vote in person at the meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the chairman of the meeting may adjourn the meeting to another date.

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 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.

What proxy materials are available on the internet?

The proxy statement, the Notice of the Annual Meeting and our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, as amended (the “Annual Report to Stockholders”), are available at www.xeneticbio.com. The information on our website is not incorporated by reference into, or a part of, this proxy statement.

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIALS

In accordance with the rules of the SEC, we are furnishing our proxy materials, including this proxy statement and the Annual Report to Stockholders to our stockholders, via the Internet. During the week of _____, 2022, we will commence mailing to our stockholders a Notice of Internet Availability of Proxy Materials (the “Notice of Internet Availability”) that contains instructions on how to access our proxy materials on the Internet and how to vote. Other stockholders, in accordance with their prior requests, will receive an email with instructions on how to access our proxy materials and vote, or will be mailed paper copies of our proxy materials and a proxy card or voting form. Stockholders may request to receive all future proxy materials in printed form by mail or electronically by email by following the instructions contained in the Notice of Internet Availability.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDER MEETING TO BE HELD ON DECEMBER 7, 2022

The 2022 Proxy Statement and 2021 Annual Report to Stockholders are available online at:

- <http://www.virtualshareholdermeeting.com/XBIO2022>; and
- www.xeneticbio.com.

7

Proposal 1

Election of Directors

Our Board of Directors (“Board”) consists of seven directors. There are seven nominees for director this year. Each director to be elected and qualified will hold office until the next annual meeting of stockholders 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 stockholders. It is our policy to encourage nominees for directors to attend the Annual Meeting. At the Company’s last annual meeting of stockholders, which was held in December of 2021, five of our Board members attended the meeting and were available to be heard by those

present at the meeting.

Directors are elected by a plurality of the votes of the holders of shares present in person or represented by proxy and entitled to vote on the election of directors. Accordingly, the seven nominees receiving the highest number of affirmative votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the seven nominees named below. If any nominee becomes unavailable for election as a result of an unexpected occurrence, your shares will be voted for the election of a substitute nominee proposed by us. Each person nominated for election has agreed to serve if elected. Our management has no reason to believe that any nominee will be unable to serve.

Nominees

The following is a brief biography 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 to recommend that person as a nominee for director, as of the date of this proxy statement.

| Name | Age | Position |
|------------------------------|-----|--------------------------------------|
| Mr. Jeffrey Eisenberg | 56 | Chief Executive Officer and Director |
| Dr. Grigory Borisenko | 53 | Director |
| Dr. James Callaway | 66 | Director ^{(1), (2), (3)} |
| Mr. Firdaus Jal Dastoor, FCS | 70 | Director ^{(1), (2)} |
| Dr. Roger Kornberg | 75 | Director ⁽³⁾ |
| Mr. Adam Logal | 44 | Director ^{(1),(2),(3)} |
| Dr. Alexey Vinogradov | 52 | Director |

(1) Member of the Audit Committee

(2) Member of the Compensation Committee

(3) Member of the Nominating and Corporate Governance Committee

Jeffrey Eisenberg was appointed our Chief Executive Officer on October 26, 2017, after serving as Chief Operating Officer since December 2, 2016, and has served as a member of our Board since July 2016. Mr. Eisenberg previously worked at Noven Pharmaceuticals, Inc. (“Noven”), a subsidiary of Hisamitsu Pharmaceutical, Inc., where he held various positions of increasing responsibility, most recently serving from 2009-2016 as Noven’s president, chief executive officer and as a member of its board of directors. Mr. Eisenberg previously served as an independent director for Mabvax Therapeutics Holdings, Inc. from February 2016 until his resignation in July 2018. Mr. Eisenberg obtained his J.D. at Columbia University Law School and a B.S. in Economics from the Wharton School, University of Pennsylvania. We believe Mr. Eisenberg’s significant life science executive experience and leadership experience in the areas of R&D, operations, manufacturing/quality, business development, strategic partnering, product development, commercialization, and human resources provides him with the appropriate set of skills to serve as a member of our Board.

Grigory Borisenko, PhD, was appointed to the Board in September 2019. Dr. Borisenko has over 20 years of scientific, management and strategic experience in the life science field. Since April 2022, Dr. Borisenko has been an independent consultant for a number of companies. Prior to that time, Dr. Borisenko served as an Investment Director of RUSNANO Management Company LLC, a venture capital & private equity management company in Russia, and has specialized in investment projects in life sciences from 2012 through March 31, 2022. From 2009 through 2012, he was a head of the pharmaceutical sector of the Department of Science and Technology Expertise at the state corporation, RUSNANO. Dr. Borisenko currently serves on the board of directors of Novamedica LLC and RusnanoMedInvest LLC. Prior to that, he served on the board of directors of Atea Pharmaceuticals, Inc., Adastral Pharmaceuticals, Inc., and Nearmedic Pharm LLC. Prior to his investment career, Dr. Borisenko held academic appointments with the University of Pittsburgh, Russian State Medical University and Institute of Medico-Biological Problems. He has co-authored over fifty peer-reviewed publications in leading biochemistry and cell biology journals. Dr. Borisenko received his M.S. and Ph.D. from the Russian State Medical University, and is a recipient of Fogarty International and International Fellowship Awards from NIH. We believe Dr. Borisenko’s extensive background in the life sciences and biotechnology industries provide him with the appropriate set of skills to serve as a member of our Board.

James Callaway, PhD was appointed to the Board on August 14, 2017. Dr. Callaway has over 30 years of experience in the execution of product development operations for biotherapeutics and currently serves as an independent board member of KalGene Pharmaceuticals (“KalGene”) and Nuravax. Dr. Callaway is a seasoned CEO within the venture-backed biotech community and over the course of his career he has built and operated several companies, transforming each from research companies to clinical stage operating entities. He also serves as a Corporate Strategy Consultant to the biotech community at Callaway Innovations. Dr. Callaway has served as CEO of privately-held biotech companies including KalGene, a company focused on disease-modifying therapies in Alzheimer’s Disease, ArmaGen, Inc., a BBB transport company, and CEBIX, Inc., a diabetic neuropathy company. Prior to these efforts, Dr. Callaway held multiple senior leadership positions at Elan Pharmaceuticals, including simultaneously acting as Head of Development and overseeing the complex partnership with Wyeth Pharmaceuticals in the Alzheimer’s disease immunotherapy program. He has developed antibodies for a wide-range of therapeutic applications over the past two decades, including treatments of multiple sclerosis (Tysabri®: pharmaceutical development), Alzheimer’s disease (bapineuzumab: Program Executive), and blood brain barrier transport, and has worked with the United States Food and Drug Administration on multiple orphan drug development programs. We believe Dr. Callaway’s significant life sciences executive, leadership and strategic experience in the area of biotherapeutics provides him with the appropriate set of skills to serve as a member of our Board.

Firdaus Jal Dastoor, FCS, was initially appointed as a member of our Board in January 2014 pursuant to terms of the agreement of our acquisition of Xenetic U.K. He has been employed by the Cyrus Poonawalla Group, a conglomerate in India with interests in horse breeding, biotech and life sciences, and financial services, in business development strategies and operational roles since October 1981. Mr. Dastoor is currently a Group Director in charge of Finance and Corporate Affairs and Company Secretary of the Serum Institute of India Private Limited at the Cyrus Poonawalla Group. He has been a Fellow Member of The Institute of Company Secretaries of India since 1990. Mr. Dastoor is on the board of several private companies operating in the fields of life sciences and biotech, international trade, financial services and quality standards certifications. Mr. Dastoor received a B.A. in Commerce from the University of Poona. We believe Mr. Dastoor’s knowledge of investments in the life sciences and biotechnology industries, and his finance and business development background provide him with the appropriate set of skills to serve as a member of our Board.

Dr. Roger Kornberg has served as a member of our Board since February 2016. Dr. Kornberg is a member of the U.S. National Academy of Sciences and the Winzer Professor of Medicine in the Department of Structural Biology at Stanford University. He earned his B.S. in chemistry from Harvard University in 1967 and his Ph.D. in chemical physics from Stanford in 1972. He became a postdoctoral fellow at the Laboratory of Molecular Biology in Cambridge, England and then an assistant professor of biological chemistry

at Harvard Medical School in 1976, before moving to his present position as professor of structural biology at Stanford Medical School in 1978. In 2006, Dr. Kornberg was awarded the Nobel Prize in Chemistry in recognition for his studies of the molecular basis of Eukaryotic Transcription, the process by which DNA is copied to RNA. Dr. Kornberg is also the recipient of several awards, including the 2001 Welch Prize, the highest award granted in the field of chemistry in the United States, and the 2002 Leopold Mayer Prize, the highest award granted in the field of biomedical sciences from the French Academy of Sciences. Dr. Kornberg has served as a director of Cocrystal Pharma, Inc. (NasdaqCM: COCP) since April 2020. We believe Dr. Kornberg's prior experience serving on the boards of directors of large organizations as well as his scientific background provides him with the appropriate set of skills to serve as a member of our Board.

Adam Logal was appointed to the Board in August 2017. Mr. Logal has 20 years of experience in the biopharmaceuticals industry. Since April 2014, Mr. Logal has served as Senior Vice President, Chief Financial Officer, Chief Accounting Officer and Treasurer of OPKO Health, Inc. ("OPKO"), a publicly-traded company, and from March 2007 until April 2014 served as OPKO's Vice President of Finance, Chief Accounting Officer and Treasurer. Mr. Logal served as a director of VBI Vaccines, Inc., a publicly-traded company, from May 2015 through October 2018 and served as its Audit Committee Chairman. Prior to joining OPKO, Mr. Logal served in various financial management roles at Nabi Biopharmaceuticals, a commercial stage biopharmaceutical company. Mr. Logal is a strategic finance executive with extensive experience in SEC compliance and reporting, domestic and international finance, strategic planning, cash flow management, budgeting, taxation, treasury and business development. We believe Mr. Logal's extensive financial experience with public companies in the life sciences industry provides him with the appropriate set of skills to serve as a member of our Board.

Alexey Vinogradov has served as a member of our Board since July 2019. Mr. Vinogradov currently serves as Business Development Director and Operations Director at Cantreva LLC, a Russian company with extensive specialized experience of delivering services in the field of renewable energy (solar, wind, hydro power), performing works on a "turnkey" basis since September 2017. Mr. Vinogradov previously served as General Manager at Togas Middle East LLC in Dubai, UAE from May 2015 to May 2017. Prior to that, Mr. Vinogradov served as branch manager at Togas Group LLC in Russia from March 2012 to November 2016. We believe Mr. Vinogradov's experience in business communication, international business development and financial analytics provides him with the appropriate set of skills to serve as a member of our Board.

There are no family relationships among any of our directors and executive officers and, to the best of our knowledge, none of our directors or executive officers has, during the past ten years, been involved in any legal proceedings which are required to be disclosed pursuant to the rules and regulations of the SEC.

**The Board Of Directors Recommends
A Vote In Favor Of Each Named Nominee.**

10

INFORMATION REGARDING THE BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

During fiscal year 2021, the following served as a member of the Company's Board of Directors: Jeffrey Eisenberg, Dr. Grigory G. Borisenko, Dr. James Callaway, Firdaus Jal Dastoor, Dr. Roger Kornberg, Dr. Dmitry Genkin, Adam Logal and Alexey Vinogradov. On July 15, 2021, Dr. Dmitry Genkin resigned as a member of the Board. On August 25, 2021, the Directors voted to set the size of the Board to seven members. Directors shall hold office for a one-year term or until their successors have been duly elected and qualified. Vacancies on the Board resulting from death, resignation, disqualification, removal, or other causes can be filled by the affirmative vote of a majority of the directors then in office. Any director so elected, shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been duly elected and qualified. Each of the seven current directors was previously elected at the Company's last annual meeting of stockholders to hold office until the next annual meeting of stockholders and until his or her successor is elected, or, if sooner, until the director's death, resignation or removal.

Independence of The Board of Directors

As required under the Nasdaq Stock Market LLC ("Nasdaq") listing standards, a majority of the members of a listed company's board of directors must qualify as "independent," as affirmatively determined by the Board of Directors. The Board consults with advisors to ensure that the Board's determinations are consistent with relevant securities and other laws and regulations regarding the definition of "independent," including those set forth in pertinent listing standards of Nasdaq, as in effect from time to time.

Consistent with these considerations, after review of all relevant identified transactions or relationships between each director, or any of his or her family members, and the Company, its senior management and its independent auditors, the Board affirmatively determined that the following directors were independent directors within the meaning of the applicable Nasdaq listing standards for the period during which they served as a member of the Board during fiscal year 2021: Dr. Callaway, Mr. Dastoor, Dr. Kornberg, Mr. Logal, Mr. Vinogradov and Dr. Borisenko. In making the independence determinations, the Board considered a number of factors and relationships, including without limitation Dr. Borisenko's employment as the Investment Director of Rusnano LLC, an entity affiliated with Pharmsynthez, at the time of the Board's independence determination.

During fiscal year 2021, all members of our Audit Committee, Nominating and Corporate Governance Committee, and Compensation Committee were independent (as independence is currently defined in Rule 5605 of the Nasdaq listing standards).

Board Leadership Structure

We separate the roles of Chief Executive Officer and Board Chair in recognition of the differences between the two roles. The Board of Directors is currently chaired by independent director, Adam Logal, and our Chief Executive Officer, Jeffrey Eisenberg, is our only employee-director. The Chief Executive Officer is responsible for setting the strategic direction for the Company and the day to day leadership and performance of the Company, while the Board Chair is responsible for leading the Board in the execution of its fiduciary duties. The Board Chair presides over meetings of the full Board. While we recognize that different board leadership structures may be appropriate for companies in different situations, we believe our current leadership structure is the optimal structure for the Company at this time.

11

Role of the Board in Risk Oversight

Our management is principally responsible for defining the various risks facing the Company, formulating risk management policies and procedures, and managing our risk exposures on a day-to-day basis. The Board's principal responsibility in this area is to ensure that sufficient resources, with appropriate technical and managerial skills, are provided throughout the Company to identify, assess and facilitate processes and practices to address material risk and to monitor our risk management processes by informing itself concerning our material risks and evaluating whether management has reasonable controls in place to address the material risks. The involvement of the Board in reviewing our business strategy is an integral aspect of the Board's assessment of management's tolerance for risk and its determination of what constitutes an appropriate level

of risk for the Company.

Meetings of The Board of Directors

The Board of Directors met six times during the last fiscal year. Each Board member attended 75% or more of the aggregate number of meetings of the Board and of the committees on which she or he served that were held during the portion of the last fiscal year for which she or he was a director or committee member, except as follows: Dr. Kornberg who attended 50% of the Nominating and Corporate Governance Committee meetings held during 2021. At the Company's last annual meeting of stockholders, which was held in December of 2021, five of our Board members attended the meeting and were available to be heard by those present at the meeting.

Anti-Hedging and Pledging Policy

We have adopted a policy prohibiting the hedging and pledging of our securities, which applies to all officers, directors, and certain designated employees and consultants of the Company and provides that, unless approved in advance by the Audit Committee, such individuals are prohibited from (i) engaging in any hedging transactions (including buying or selling puts, calls or other derivative securities, as well as derivatives such as swaps, forwards, and futures transactions) with respect to securities of the Company, and (ii) using the Company's securities in a margin account or pledging Company securities as collateral for a loan. As of the date of this proxy statement, all of our directors and executive officers are in compliance with this policy. In addition, no securities beneficially owned by our officers and directors are pledged.

Information Regarding Committees of the Board of Directors

The Board has three standing committees: an Audit Committee, a Compensation Committee, and a Nominating and Corporate Governance Committee. The Board also has one special committee: the Financing Committee which was formed in August 2020. The Company has adopted charters to govern the conduct, authority and responsibilities of each of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee.

The following table provides membership and meeting information for fiscal 2021 for each of the standing Board committees:

| Name | Audit | Compensation | Nominating and Corporate Governance |
|------------------------------------|-------|--------------|-------------------------------------|
| Jeffrey Eisenberg | | | |
| Grigory Borisenko | | | |
| James Callaway | X | X* | X* |
| Firdaus Jal Dastoor, FCS | X | X | |
| Roger Kornberg | | | X |
| Dmitry Genkin ⁽¹⁾ | | | |
| Adam Logal | X* | X | X |
| Alexey Vinogradov | | | |
| Total meetings in 2021 fiscal year | 5 | 3 | 2 |
| *Committee Chairperson | | | |

⁽¹⁾On July 15, 2021, Dmitry Genkin resigned as a member of the Board of Directors.

Below is a description of each standing committee of the Board of Directors. Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate, to carry out its responsibilities. The Board of Directors has determined that each member, during the portion of the relevant fiscal year for which such member has served, of each committee met or meets, as applicable, the applicable Nasdaq rules and regulations regarding "independence" and each member was or is, as applicable, free of any relationship that would impair his or her individual exercise of independent judgment with regard to the Company.

Audit Committee

The Audit Committee of the Board of Directors was established by the Board in accordance with Section 3(a)(58)(A) of the Exchange Act, to oversee the Company's corporate accounting and financial reporting processes and audits of its financial statements. For this purpose, the Audit Committee performs several functions. The Audit Committee evaluates the performance of and assesses the qualifications of the independent auditors; determines and approves the engagement of the independent auditors; determines whether to retain or terminate the existing independent auditors or to appoint and engage new independent auditors; reviews and approves the retention of the independent auditors to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent auditors on the Company's audit engagement team as required by law; reviews and approves or rejects transactions between the Company and any related persons; confers with management and the independent auditors regarding the effectiveness of internal control over financial reporting; establishes procedures, as required under applicable law, for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters; and meets to review the Company's annual audited financial statements and quarterly financial statements with management and the independent auditor, including a review of the Company's disclosures under the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of the Company's Annual Report to Stockholders on Form 10-K.

For the fiscal year 2021, the Audit Committee was composed of three directors: Mr. Dastoor, Dr. Callaway, and Mr. Logal (chair). The Audit Committee met five times during fiscal year 2021. The Board has adopted a written Audit Committee charter that is available to stockholders on the Company's website at <http://ir.xeneticbio.com/>. The information on our website is not incorporated by reference into, or a part of, this proxy statement.

The Board of Directors reviews the Nasdaq listing standards definition of independence for Audit Committee members on an annual basis and has determined that all current members of our Audit Committee are independent (as independence is currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the Nasdaq listing standards).

The Board of Directors has also determined that Mr. Logal qualifies as an “audit committee financial expert,” as defined in applicable SEC rules. The Board made a qualitative assessment of Mr. Logal’s level of knowledge and experience based on a number of factors, including his formal education and experience as a chief financial officer.

Report of the Audit Committee of the Board of Directors

The Audit Committee has reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2021 with management of the Company. The Audit Committee has discussed with the independent registered public accounting firm the matters required to be discussed by Auditing Standard No. 1301, *Communications with Audit Committees*, as adopted by the Public Company Accounting Oversight Board (“PCAOB”). The Audit Committee has also received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent accountants’ communications with the audit committee concerning independence, and has discussed with the independent registered public accounting firm the accounting firm’s independence. Based on the foregoing, the Audit Committee has recommended to the Board of Directors that the audited financial statements be included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Mr. Adam Logal, Chairman
Dr. James E. Callaway
Mr. Firdaus Jal Dastoor, FCS

Compensation Committee

For the fiscal year 2021, the Compensation Committee was composed of three directors: Dr. Callaway (chair), Mr. Dastoor and Mr. Logal. All current members of our Compensation Committee are independent (as independence is currently defined in Rule 5605(d)(2) of the Nasdaq listing standards). The Compensation Committee met three times during 2021 and acted on one occasion by unanimous written consent. The Board has adopted a written Compensation Committee charter that is available to stockholders on the Company’s website at <http://ir.xeneticbio.com/>. The information on our website is not incorporated by reference into, or a part of, this proxy statement.

The Compensation Committee of the Board acts on behalf of the Board to review, recommend for adoption and oversee our compensation strategy, policies, plans and programs, including:

- establishment of corporate and individual performance objectives relevant to the compensation of our executive officers and directors and evaluation of performance in light of these stated objectives;
- review and approval of the compensation and other terms of employment or service of our Chief Executive Officer; and
- administration of our equity compensation plans, pension and profit-sharing plans, deferred compensation plans and other similar plan and programs.

The Compensation Committee determines salaries, incentives and other forms of compensation for the Chief Executive Officer and our executive officers and reviews and makes recommendations to the Board with respect to director compensation. The Compensation Committee meets without the presence of executive officers when approving or deliberating on executive officer compensation, but may invite the Chief Executive Officer to be present during the approval of, or deliberations with respect to, other executive officer compensation. The Compensation Committee reviews and approves the terms of offer letters, employment agreements, severance agreements, change-in-control agreements, indemnification agreements and other material agreements between us and our executive officers. In addition, the Compensation Committee administers our stock incentive compensation and equity-based plans.

Compensation Committee Interlocks and Insider Participation

None of the individuals serving on the Compensation Committee during fiscal year 2021 were at any time during fiscal year 2021, an officer or employee of the Company and none have served as a former officer of the Company. See “*Certain Related-Person Transactions*” below for related party transactions involving Dr. Kornberg, Mr. Logal and Mr. Dastoor. None of our current executive officers has served as a member of the board of directors, or as a member of the compensation or similar committee, of any entity that has one or more executive officers who served on our board of directors or compensation committee during the year ended December 31, 2021.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee of the Board is responsible for identifying, reviewing and evaluating candidates to serve as directors of the Company (consistent with criteria approved by the Board), reviewing and evaluating incumbent directors, recommending to the Board for selection candidates for election to the Board of Directors, making recommendations to the Board regarding the membership of the committees of the Board, and developing a set of corporate governance principles for the Company.

For the fiscal year 2021, the Nominating and Corporate Governance Committee was composed of three directors: Dr. Callaway (chair), Mr. Logal and Dr. Kornberg. All members of the Nominating and Corporate Governance Committee are independent (as independence is currently defined in Rule 5605(a)(2) of the Nasdaq listing standards). The Nominating and Corporate Governance Committee met twice during 2021. The Board has adopted a written Nominating and Corporate Governance Committee charter that is available to stockholders on the Company’s website at <http://ir.xeneticbio.com/>. The information on our website is not incorporated by reference into, or a part of, this proxy statement.

The Nominating and Corporate Governance Committee believes that candidates for director should have certain minimum qualifications, including the ability to read and understand basic financial statements, being over 21 years of age and having the highest personal integrity and ethics. The Nominating and Corporate Governance Committee also intends to consider such factors as possessing relevant expertise upon which to be able to offer advice and guidance to management, having sufficient time to devote to the affairs of the Company, demonstrated excellence in his or her field, having the ability to exercise sound business judgment and having the commitment to rigorously represent the long-term interests of the Company’s stockholders. However, the Nominating and Corporate Governance Committee retains the right to modify these qualifications from time to time. Candidates for director nominees are reviewed in the context of the current composition of the Board, the operating requirements of the Company and the long-term interests of stockholders. In conducting this assessment, the Nominating and Corporate Governance Committee typically considers diversity, age, skills and such other factors as it deems appropriate, given the current needs of the Board and the Company, to maintain a balance of knowledge, experience and capability.

While we do not have a formal diversity policy with respect to Board composition, the Board believes it is important for the Board to have diversity of knowledge base, professional experience and skills, and the Nominating and Corporate Governance Committee takes these qualities into account when considering director nominees for recommendation to the Board. The following table sets forth the diversity of our current and nominated directors:

Board Diversity Matrix (as of _____, 2022)

| Part I: Gender Identity | 7 | |
|--|--------|------|
| | Female | Male |
| Directors | 0 | 7 |
| Part II: Demographic Background | | |
| Asian | 0 | 1 |
| White | 0 | 6 |

The Nominating and Corporate Governance Committee will consider director candidates recommended by stockholders. A stockholder who wishes to suggest a prospective nominee for the Board of Directors should notify the Company's Secretary or any member of the Nominating and Corporate Governance Committee in writing and include any supporting material the stockholder considers appropriate. In addition, the Company's Amended and Restated Bylaws contain provisions addressing the process by which a stockholder may nominate an individual to stand for election to the Board of Directors at its Annual Meeting of Stockholders. In order to nominate a candidate for director, a stockholder must give timely notice in writing to the Company's Secretary and otherwise comply with the provisions of our Amended and Restated Bylaws. To be timely, our Amended and Restated Bylaws provide that we must have received the notice not less than 90 days or more than 120 days prior to the one-year anniversary of the date of the previous year's Annual Meeting of Stockholders (the "Anniversary"); provided, however, that in the event that the date of next year's Annual Meeting is more than 30 days before or more than 30 days after the Anniversary, notice must be delivered not earlier than the close of business on the 120th day prior to next year's Annual Meeting and not later than the close of business on the later of (i) the 90th day prior next year's Annual Meeting or (ii) the close of business on the 10th day following the day on which public announcement of the date of next year's Annual Meeting is first made by us. Information required by our Amended and Restated Bylaws to be in the notice includes: (A) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case, pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director, if elected); (B) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three (3) years, and any other material relationships, between or among such stockholder, the beneficial owner, if any, on whose behalf any such proposal or nomination is being made, and their respective affiliates and associates, on the one hand, and each proposed nominee, and his or her respective affiliates and associates, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 of Regulation S-K promulgated under the Securities Act of 1933, as amended, if such stockholder, such beneficial owner, or any affiliate or associate thereof, were the "registrant" for purposes of such rule and the nominee were a director or executive officer of such registrant; (C) to the extent known by the stockholder, the name and address of any other security holder of the Company who owns, beneficially or of record, any securities of the Company and who supports any nominee proposed by such stockholder; and (D) a questionnaire and a representation and agreement, completed and signed by such person, as required by our Amended and Restated Bylaws.

Stockholder nominations must be made in accordance with the procedures outlined in, and include the information required by, our Amended and Restated Bylaws and must be addressed to our Corporate Secretary, c/o Xenetic Biosciences, Inc., 945 Concord Street, Framingham, Massachusetts 01701. You can obtain a copy of our Amended and Restated Bylaws by writing to the Corporate Secretary at this address.

Our Nominating and Corporate Governance Committee recommended to the Board that it nominate each of Grigory Borisenko, James Callaway, Firdaus Jal Dastoor, Jeffrey Eisenberg, Roger Kornberg, Adam Logal and Alexey Vinogradov for election at the 2022 Annual Meeting.

Stockholder Communications With The Board Of Directors

Historically, we have not provided a formal process related to stockholder communications with the Board. All communications to our Board, our Board committees or any individual director, must be in writing and addressed to our Corporate Secretary, c/o Xenetic Biosciences, Inc., 945 Concord Street, Framingham, Massachusetts 01701. All communications will be reviewed by the Secretary and, unless otherwise indicated in such communication, submitted to the Board or an individual director, as appropriate.

Code of Business Conduct and Ethics

We have adopted the Xenetic Biosciences, Inc. Code of Business Conduct and Ethics that applies to all of our employees, officers and directors, including our principal executive officer, principal financial officer and principal accounting officer. The Code of Business Conduct and Ethics is available on our website, www.xeneticbio.com, under "Investors" at "Corporate Governance." If we make any substantive amendments to the Code of Business Conduct and Ethics or grant any waiver from a provision of the Code of Business Conduct and Ethics to any executive officer or director, we intend to promptly disclose the nature of the amendment or waiver on our website, to the extent required by the applicable rules and exchange requirements. The information on our website is not incorporated by reference into, or a part of, this proxy statement.

Security Ownership of Certain Beneficial Owners and Management

The following table and footnotes set forth certain information known to us regarding beneficial ownership of our capital stock as of September 30, 2022 for:

- each person known by us to be the beneficial owner of more than 5% of our capital stock;
- our named executive officers;
- each of our directors; and
- all executive officers and directors as a group.

The number of shares beneficially owned by each entity, person, director or executive officer is determined in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares over which the individual has sole or shared voting power or investment power as well as any shares that the individual has the right to acquire within 60 days through the exercise of any stock option, warrants or other rights. 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 that person or entity.

The percentage of shares beneficially owned is computed on the basis of 14,316,596 shares of our common stock outstanding as of September 30, 2022, on an as-converted basis. Shares of our common stock that a person has the right to acquire within 60 days after September 30, 2022 are deemed outstanding for purposes of computing the percentage ownership of the person or entity holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated below, the address for each beneficial owner listed is c/o Xenetic Biosciences, Inc., at 945 Concord Street, Framingham, Massachusetts 01701.

| Name of Beneficial Owner | Number of Shares Beneficially Owned ⁽¹⁾ | Percentage Beneficially Owned |
|--|---|----------------------------------|
| Named Executive Officers and Directors | | |
| Jeffrey Eisenberg | 237,085 ⁽²⁾ | 1.6% |
| James Parslow | 92,917 ⁽³⁾ | * |
| Dr. Curtis Lockshin | 102,060 ⁽⁴⁾ | * |
| Dr. Grigory Borisenko ⁽⁵⁾ | – | * |
| Dr. James Callaway | 54,168 ⁽⁶⁾ | * |
| Firdaus Jal Dastoor | 57,956 ⁽⁷⁾ | * |
| Dr. Roger Kornberg | 56,252 ⁽⁸⁾ | * |
| Adam Logal | 54,168 ⁽⁹⁾ | * |
| Alexey Vinogradov | 236,781 ⁽¹⁰⁾ | 1.6% |
| All executive officers and directors as a group (10 persons) | 891,387 ⁽¹¹⁾ | 5.9% |
| 5% Current Stockholders | | |
| PJSC Pharmsynthez ⁽⁵⁾ | 898,367 ⁽¹²⁾ | 6.1% |

* Represents beneficial ownership of less than one percent (1%).

- (1) Unless otherwise indicated below, this table is based upon corporate records, information supplied by officers, directors and, in the case of principal stockholders, information provided by our transfer agent.
- (2) The total beneficial ownership consists of 232,918 shares issuable upon exercise of options that are exercisable within 60 days of September 30, 2022 and 4,167 vested restricted stock units.
- (3) The total beneficial ownership consists of 92,917 shares issuable upon exercise of options that are exercisable within 60 days of September 30, 2022.
- (4) The total beneficial ownership consists of 102,060 shares issuable upon exercise of options that are exercisable within 60 days of September 30, 2022.
- (5) Dr. Borisenko was employed by Rusnano LLC, an entity affiliated with Pharmsynthez, through March 31, 2022.
- (6) The total beneficial ownership consists of 54,168 shares issuable upon exercise of options that are exercisable within 60 days of September 30, 2022.
- (7) The total beneficial ownership consists of 57,956 shares issuable upon exercise of options that are exercisable within 60 days of September 30, 2022.
- (8) The total beneficial ownership consists of 56,252 shares issuable upon exercise of options that are exercisable within 60 days of September 30, 2022.
- (9) The total beneficial ownership consists of 54,168 shares issuable upon exercise of options that are exercisable within 60 days of September 30, 2022.
- (10) The total beneficial ownership consists of 186,781 shares of common stock owned directly and 50,000 shares issuable upon exercise of options that are exercisable within 60 days of September 30, 2022.
- (11) The total beneficial ownership consists of 186,781 shares of common stock owned directly, 700,439 shares issuable upon exercise of options that are exercisable within 60 days of September 30, 2022 and 4,167 shares of restricted stock units that are vested.
- (12) The total beneficial ownership consists of 447,123 shares of common stock owned directly or indirectly through SynBio and 451,244 shares issuable upon the conversion of Series B Preferred Stock. SynBio is a wholly-owned subsidiary of Pharmsynthez. Pharmsynthez may be deemed to have shared voting and shared dispositive power with respect to all the shares owned by SynBio and therefore, Pharmsynthez may be deemed to be the beneficial owner of such shares. The address of PJSC Pharmsynthez is Office Center IT Park, 25 Liter ZH, Krasnogo Kursanta St., St. Petersburg, 197110, Russia.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and executive officers, and persons who own more than ten percent of a registered class of our equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of our ordinary shares and other equity securities. Such persons are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file.

To our knowledge, based solely on a review of the copies of such reports furnished to us and written representations that no other reports were required, during the fiscal year ended December 31, 2021, we believe that all Section 16(a) filing requirements applicable to our executive officers, directors and greater than 10% beneficial owners were complied with.

Proposal 2

Ratification of Selection of Independent Registered Public Accounting Firm

The Audit Committee of the Board has selected Marcum LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2022 and has further directed that management submit the selection of its independent registered public accounting firm for ratification by the stockholders at the Annual Meeting. Marcum LLP has audited our financial statements since 2015. Representatives of Marcum LLP are expected to be present at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

Neither the Company's Amended and Restated Bylaws nor other governing documents or law require stockholder ratification of the selection of Marcum LLP as the Company's independent registered public accounting firm. However, the Audit Committee of the Board is submitting the selection of Marcum LLP to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection, the Audit Committee of the Board will reconsider whether or not to retain that firm. Even if the selection is ratified, the Audit Committee of the Board in its discretion may direct the appointment of different independent auditors at any time during the year if they determine that such a change would be in the best interests of the Company and its stockholders.

The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote on the matter at the Annual Meeting will be required to ratify the selection of Marcum LLP.

Principal Accountant Fees and Services

The following table represents aggregate fees billed to the Company for the fiscal years ended December 31, 2021 and December 31, 2020, by Marcum LLP, the Company's principal accountant.

| | 2021 | 2020 |
|--------------------|-------------------|-------------------|
| Audit Fees | \$ 160,340 | \$ 168,896 |
| Audit-Related Fees | 52,298 | 8,910 |
| Tax Fees | - | - |
| All Other Fees | - | - |
| | <u>\$ 212,638</u> | <u>\$ 177,806</u> |

Audit Fees

Audit fees include the total fees incurred in connection with the audit of our annual consolidated financial statements for each of the years ended December 31, 2021 and 2020.

Audit-Related Fees

Audit related fees during the year ended December 31, 2021 include fees incurred in connection with our S-8 and S-3 registration statements filed throughout 2021, including comfort letters and our At-The-Market registration statement. Audit related fees during the year ended December 31, 2020 include fees incurred in connection with our Prospectus and S-8 filings in 2020.

Audit and Non-Audit Services Pre-Approval Policy

The Audit Committee pre-approves all audit and non-audit accounting services provided by our independent, registered accounting firm. All audit and non-audit fee services described above were pre-approved by the Audit Committee.

Pursuant to the Board of Directors' policy, to help ensure the independence of our independent registered public accounting firm, all auditing services and permitted non-audit services (including the terms thereof) to be performed for us by our independent registered public accounting firm must be pre-approved by the Audit Committee, subject to the de-minimus exceptions for non-audit services described in Section 10A(i)(1)(B) of the Exchange Act, which are approved by the Audit Committee prior to the commencement of services.

Our Audit Committee approved and retained Marcum LLP to audit our consolidated financial statements for 2021. Our Audit Committee reviewed all services provided by Marcum LLP in 2021 and concluded that the services provided were compatible with maintaining its independence.

The Board Of Directors Recommends A Vote In Favor Of Proposal 2

Executive Officers

The following table sets forth information concerning our executive officers as of the date of this proxy statement.

| Name | Age | Position |
|---------------------|-----|---|
| Jeffrey Eisenberg | 56 | Chief Executive Officer and Director |
| Dr. Curtis Lockshin | 62 | Chief Scientific Officer |
| James Parslow | 57 | Chief Financial Officer and Corporate Secretary |

Jeffrey Eisenberg. Biographical information for Mr. Eisenberg is included above with the director biographies under the caption "Nominees."

Dr. Curtis Lockshin initially joined us on a part-time basis in March 2014 as our Vice President of Research & Operations and was appointed our Chief Scientific Officer effective January 1, 2017. Dr. Lockshin has held several management positions at development and commercial stage biotechnology companies, with experience including discovery, preclinical and clinical development, as well as commercial manufacturing. Since May 2013, he has held the position of president and chief executive officer of Guardum Pharmaceuticals LLC ("Guardum"), a wholly owned subsidiary of PJSC PharmSynthex, a position which he continues to hold in addition to his position with us. Dr. Lockshin does not receive a salary for these services but did receive medical benefits and was covered under Guardum's health plan through July 31, 2018. In addition, Dr. Lockshin has served as an officer or consultant of several biotechnology companies on a part-time basis, including as an officer of a series of related companies following multiple mergers beginning as chief executive officer and director of SciVac Therapeutics, Inc. and its subsidiary SciVac, Ltd., from September 2014 until July 2016. After SciVac Therapeutics, Inc.'s merger with VBI Vaccines, Inc. in July 2016, Dr. Lockshin served as chief technical officer of the merged company until December 2016. Dr. Lockshin is currently serving as a member of the board of directors of Phio Pharmaceuticals Corporation, a publicly traded clinical-stage RNAi company focused on immunoncology, a position he has held since April 2013. Dr. Lockshin has an S.B. in Life Sciences and a Ph.D. in Biological Chemistry from the Massachusetts Institute of Technology. Since April 2004, Dr. Lockshin has also served as a member of the board of directors of the Ruth K. Broad Biomedical Research Foundation, a Duke University Support Corporation that supports basic research related to Alzheimer's disease and neurodegeneration via intramural, extramural and international grants.

James Parslow was appointed our Chief Financial Officer on April 3, 2017. Mr. Parslow most recently served as Chief Financial Officer, Treasurer and Secretary of World Energy Solutions, Inc., a publicly-traded business-to-business e-commerce company brokering energy and environmental commodities, from 2006 until its acquisition by EnerNOC, Inc. in 2015. From 2015 until 2017, he served as an independent consultant providing interim chief financial officer services to multiple emerging technology companies. Mr. Parslow is a Certified Public Accountant with over 35 years of experience serving private and public companies in the biotech, clean tech, e-commerce, and high-tech manufacturing industries. He holds an A.B. in Economics and Accounting from the College of the Holy Cross and an M.B.A. with a concentration in Finance from Bentley University.

Executive Compensation

Summary Compensation Table

The following table sets forth, for the years ended December 31, 2021 and 2020, the compensation information for Jeffrey Eisenberg, our Chief Executive Officer, Dr. Curtis

Lockshin, our Chief Scientific Officer, and James Parslow, our Chief Financial Officer. We refer to Messrs. Eisenberg, Lockshin, and Parslow herein, collectively, as our “named executive officers.”

| Name and Principal Position | Year | Salary (\$) | Option Awards ⁽¹⁾ (\$) | Non-Equity Incentive Plan Compensation ⁽²⁾ (\$) | | All Other Compensation (\$) | Total (\$) |
|--|------|-------------|-----------------------------------|--|--------------|-----------------------------|------------|
| | | | | | | | |
| Jeffrey F. Eisenberg, Chief Executive Officer | 2021 | \$ 367,500 | \$ 234,052 | \$ 119,438 | \$ 29,241(3) | \$ 750,231 | |
| | 2020 | \$ 350,000 | \$ – | \$ 68,250 | \$ 28,107 | \$ 446,357 | |
| James Parslow, Chief Financial Officer | 2021 | \$ 299,250 | \$ 117,026 | \$ 68,079 | \$ 36,454(4) | \$ 520,809 | |
| | 2020 | \$ 285,000 | \$ – | \$ 38,900 | \$ 35,512 | \$ 359,412 | |
| Dr. Curtis Lockshin, Chief Scientific Officer | 2021 | \$ 299,250 | \$ 117,026 | \$ 68,079 | \$ 23,965(5) | \$ 508,320 | |
| | 2020 | \$ 285,000 | \$ – | \$ 38,900 | \$ 23,303 | \$ 347,203 | |

(1) The amounts represent the aggregate grant date fair value of stock options granted in the applicable fiscal year, computed in accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 718, excluding the effect of estimated forfeitures. Assumptions used in the calculation of this amount are set forth in Note 11 to our audited consolidated financial statements included in Item 8 of the Annual Report to Stockholders. Mr. Eisenberg, Mr. Parslow, and Dr. Lockshin were granted options to purchase 100,000 shares, 50,000 shares and 50,000 shares of common stock, respectively, during 2021.

(2) Represents incentive compensation payments earned.

(3) Includes \$17,641 for health and welfare plans and \$11,600 employer matching 401(k) contribution.

(4) Includes \$24,854 for health and welfare plans and \$11,600 employer matching 401(k) contribution.

(5) Includes \$22,540 for health and welfare plans and \$1,425 employer matching 401(k) contribution.

401(k) Plan

The Company provides all full-time employees, including our named executive officers, with the opportunity to participate in a defined contribution 401(k) plan. Our 401(k) plan is intended to qualify under Section 401 of the Internal Revenue Code so that employee pre-tax contributions and income earned on such contributions are not taxable to employees until withdrawn. Employees may elect to defer up to 80 percent of their eligible compensation (not to exceed the statutorily prescribed annual limit) in the form of elective deferral contributions to our 401(k) plan. Our 401(k) plan also has a “catch-up contribution” feature for employees aged 50 or older (including those who qualify as “highly compensated” employees) who can defer amounts over the statutory limit that applies to all other employees. The 401(k) plan matches 100% of employee contributions up to a maximum of 4% of employees’ salary. Matching contributions are fully vested at the time of contribution.

Outstanding Equity Awards at Fiscal Year-End - 2021

The following table sets forth certain information with respect to outstanding equity awards held by our named executive officers at December 31, 2021.

| Name | Option Awards | | | | Stock Awards | |
|----------------------|--|--|---------------------------|------------------------|---|--|
| | Number of Securities Underlying Unexercised Options, Exercisable | Number of Securities Underlying Unexercised Options, Unexercisable | Option Exercise Price (4) | Option Expiration Date | Number of Shares or Units of Stock That Have Not Vested | Market Value of Shares or Units of Stock That Have Not Vested (\$) |
| Jeffrey F. Eisenberg | 19,168 ⁽¹⁾ | – | 40.92 | 12/2/2026 | – | – |
| | 10,417 ⁽²⁾ | – | 25.32 | 10/26/2027 | – | – |
| | 153,333 ⁽³⁾ | 76,667 ⁽³⁾ | 1.31 | 12/4/2029 | – | – |
| | – ⁽⁴⁾ | 100,000 ⁽⁴⁾ | 2.60 | 3/18/2031 | – | – |
| James Parslow | 14,584 ⁽⁵⁾ | – | 54.84 | 4/3/2027 | – | – |
| | 53,333 ⁽⁶⁾ | 26,667 ⁽⁶⁾ | 1.31 | 12/4/2029 | – | – |
| | – ⁽⁷⁾ | 50,000 ⁽⁷⁾ | 2.60 | 3/18/2031 | – | – |
| Curtis Lockshin | 1,213 ⁽⁸⁾ | – | 55.08 | 12/31/2024 | – | – |
| | 1,263 ⁽⁹⁾ | – | 55.08 | 9/6/2025 | – | – |
| | 14,584 ⁽¹⁰⁾ | – | 51.60 | 1/1/2027 | – | – |
| | 60,000 ⁽¹¹⁾ | 30,000 ⁽¹¹⁾ | 1.31 | 12/4/2029 | – | – |
| | – ⁽¹²⁾ | 50,000 ⁽¹²⁾ | 2.60 | 3/18/2031 | – | – |

(1) 392 shares vested 100% on the date of grant. Remainder vested one-third upon the first anniversary of the grant date, one-third of the remaining amount upon the second anniversary of the grant date and one-third of the remaining amount on the third anniversary of the grant date.

(2) Vested one-third upon the first anniversary of the grant date, one-third upon the second anniversary of the grant date and one-third upon the third anniversary of the grant date.

(3) Vests one-third upon the first anniversary of the grant date, one-third upon the second anniversary of the grant date and one-third upon the third anniversary of the grant date.

(4) Vests one-third upon the first anniversary of the grant date and the remaining two-thirds over eight equal quarterly installments commencing June 18, 2022 and ending on March 18, 2024.

(5) Vested one-third upon the first anniversary of the grant date, one-third upon the second anniversary of the grant date and one-third upon the third anniversary of the grant date.

(6) Vests one-third upon the first anniversary of the grant date, one-third upon the second anniversary of the grant date and one-third upon the third anniversary of the grant date.

(7) Vests one-third upon the first anniversary of the grant date and the remaining two-thirds over eight equal quarterly installments commencing June 18, 2022 and ending on March 18, 2024.

(8) Vested one-third upon March 3, 2015, one-third upon March 15, 2016 and one-third upon March 15, 2017.

(9) Vested one-third upon the first anniversary of the grant date, one-third upon the second anniversary of the grant date and one-third upon the third anniversary of the grant date.

- (10) Vested one-third upon the first anniversary of the grant date, one-third upon the second anniversary of the grant date and one-third upon the third anniversary of the grant date.
- (11) Vests one-third upon the first anniversary of the grant date, one-third upon the second anniversary of the grant date and one-third upon the third anniversary of the grant date.
- (12) Vests one-third upon the first anniversary of the grant date and the remaining two-thirds over eight equal quarterly installments commencing June 18, 2022 and ending on March 18, 2024.

Employment Agreements with our Named Executive Officers

Employment Agreement with Mr. Eisenberg

We entered into an employment agreement with Mr. Eisenberg effective as of December 1, 2016 for him to serve as Chief Operating Officer (the “Original Agreement”). The Original Agreement was for an initial term of one year, and automatically renewed for successive one year periods unless either party gave notice to the other no later than 90 days prior to the expiration of the then-applicable term; provided, however, that we could terminate the Original Agreement at any time. Mr. Eisenberg’s annual salary under the Original Agreement was \$300,000, and was subject to annual review and upward adjustment only by the Compensation Committee of the Board. Mr. Eisenberg was also eligible to receive a bonus equal to 35% of his annual salary based on the attainment of certain individual and/or Company goals established by the Board or a committee thereto. Mr. Eisenberg was also eligible to participate in our employee benefit, welfare and other plans, as may be maintained by us from time to time, on a basis no less favorable than those provided to other similarly situated executives of the Company. Mr. Eisenberg was also subject to certain customary confidentiality, non-solicitation and non-competition provisions.

Under the Original Agreement, if Mr. Eisenberg’s employment was terminated by us without “Cause” (as defined in the Original Agreement) or if he resigned for “Good Reason” (as defined in the Original Agreement), he was entitled to receive (i) six months of his then current base salary, paid over time in accordance with our payroll practices then in effect if he had been employed by us for six months or less, (ii) 12 months of his then current base salary, paid over time in accordance with our payroll practices then in effect if he had been employed by us for more than six months, (iii) a pro-rated annual bonus and (iv) payment of premiums for continued health benefits under COBRA for up to six months.

On October 26, 2017, the Company amended and restated the Original Agreement in order to employ Mr. Eisenberg as the Chief Executive Officer of the Company, effective as of the same date (the “Amended Agreement”). The terms of the Amended Agreement were substantially similar to the terms of the Original Agreement, except that Mr. Eisenberg is now eligible to receive a bonus equal to 50% of his annual salary based on the attainment of certain individual and/or Company goals established by the Board or a committee thereto, and if Mr. Eisenberg’s employment is terminated by us without “Cause” (as defined in the Amended Agreement) or if he resigns for “Good Reason” (as defined in the Amended Agreement), he will be entitled to receive (i) within thirty days following the date of termination, an amount equal to one times his then current base salary, (ii) a pro-rated annual bonus and (iii) payment of premiums for continued health benefits under COBRA for up to twelve months.

Employment Agreement with Mr. Parslow

We entered into an employment agreement with Mr. Parslow effective as of April 3, 2017 (the “Parslow Employment Agreement”). The Parslow Employment Agreement does not provide for a specified term of employment and Mr. Parslow’s employment will be on an at-will basis. Mr. Parslow received an initial annual base salary of \$265,000 and is eligible to earn an annual cash incentive bonus, which is set at a target aggregate bonus amount of 35% of Mr. Parslow’s base salary, upon achievement of certain individual and/or Company performance goals set by the Compensation Committee. Mr. Parslow is also eligible to participate in the Company’s employee benefit, welfare and other plans, as may be maintained by the Company from time to time, on a basis no less favorable than those provided to other similarly-situated executives of the Company. Mr. Parslow is also subject to certain customary confidentiality, non-solicitation and non-competition provisions.

If Mr. Parslow’s employment is terminated by the Company without “cause” (as defined in the Parslow Employment Agreement) or Mr. Parslow resigns for “good reason” (as defined in the Parslow Employment Agreement), he will be entitled to receive (i) one year of his then current base salary, paid over time in accordance with the Company’s payroll practices then in effect and (ii) payment of premiums for continued health benefits under COBRA for up to one year.

Employment Agreement with Dr. Lockshin

We entered into an employment agreement with Dr. Lockshin effective as of January 1, 2017 (the “Lockshin Employment Agreement”). The Lockshin Employment Agreement does not provide for a specified term of employment and Dr. Lockshin’s employment will be on an at-will basis. Dr. Lockshin received an initial annual base salary of \$250,000 and is eligible to earn an annual performance-based cash incentive bonus, which is set at a target aggregate bonus amount of 35% of Dr. Lockshin’s base salary, upon achievement of certain individual and/or Company performance goals established by the Board or a committee thereto. Dr. Lockshin is also eligible to participate in the Company’s employee benefit, welfare and other plans, as may be maintained by the Company from time to time, on a basis no less favorable than those provided to other similarly-situated executives of the Company. Dr. Lockshin is also subject to certain customary confidentiality, non-solicitation and non-competition provisions.

If Dr. Lockshin’s employment is terminated by the Company without “Cause” (as defined in the Lockshin Employment Agreement) or Dr. Lockshin terminates his employment for “Good Reason” (as defined in the Lockshin Employment Agreement) and Dr. Lockshin executes and does not revoke a general release of claims against the Company, then he will be entitled to receive (i) one year of his then current base salary, paid over time in accordance with the Company’s payroll practices then in effect and (ii) payment of premiums for continued health benefits under COBRA for up to twelve months.

Potential Payments Upon Termination or Change of Control

Our named executive officers may be entitled to payments upon termination or change in control. The details of such payments are included in the description of their employment agreements above.

Equity Compensation Plan Information

The following table sets forth information as of December 31, 2021 with respect to compensation plans under which equity securities are authorized for issuance:

| Plan Category | Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights (a) | Weighted Average Exercise Price of Outstanding Options, Warrants and Rights (b) | Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)) (c) |
|--|--|--|--|
| Equity compensation plans approved by security holders | 1,098,380 ⁽¹⁾ | \$ 5.72 | 1,427,257 |
| Equity compensation plans not approved by security holders | 14,584 ⁽²⁾ | 54.84 | – |
| Total | 1,112,964 | \$ 6.36 | 1,427,257 |

(1) Consists of 1,098,380 shares of our common stock to be issued upon the exercise of outstanding stock options and restricted stock units under the Xenetic Biosciences, Inc. Amended and Restated Equity Incentive Plan (“Equity Plan”).

(2) Represents inducement award granted to Mr. Parslow in 2017 in connection with his employment with the Company that was not covered under the Equity Plan in accordance with Nasdaq Listing Rule 5635(c)(4). The option has a ten-year term and is fully vested.

Director Compensation

Each of our non-employee, independent directors is currently entitled to receive an annual retainer of \$50,000, payable in equal quarterly installments, an option to acquire 25,000 shares of the Company’s common stock upon initial appointment to the Board, and an additional option to acquire 25,000 shares each year thereafter on the date of the Company’s annual meeting of stockholders. All members of our board are reimbursed for their usual and customary expenses incurred in connection with their service on the Board, including out-of-pocket expenses, transportation, and airfare on the Company’s business.

Director Compensation Table

As an employee director during fiscal year 2021, Mr. Eisenberg did not receive any compensation for his Board service during the last completed year. The following table sets forth information for the year ended December 31, 2021 regarding the compensation awarded to, earned by or paid to our non-employee directors:

| Name | Fees Earned or Paid in Cash (\$) | Stock Awards (\$) | Option Awards⁽¹⁾⁽²⁾ (\$) | All Other Compensation (\$) | Total (\$) |
|--------------------------------------|---|--------------------------|--|------------------------------------|-------------------|
| Dr. Grigory Borisenko ⁽³⁾ | \$ – | – | \$ – | – | \$ – |
| Dr. James Callaway | \$ 50,000 | – | \$ 31,546 | – | \$ 81,546 |
| Firdaus Jal Dastoor | \$ 50,000 | – | \$ 31,546 | – | \$ 81,546 |
| Dr. Dmitry Genkin ⁽⁴⁾ | \$ – | – | \$ – | – | \$ – |
| Dr. Roger Kornberg | \$ 50,000 | – | \$ 31,546 | – | \$ 81,546 |
| Mr. Adam Logal | \$ 50,000 | – | \$ 31,546 | – | \$ 81,546 |
| Dr. Alexey Vinogradov | \$ 50,000 | – | \$ 31,546 | – | \$ 81,546 |

(1) The amounts represent the aggregate grant date fair value of stock options granted during 2021, computed in accordance with FASB ASC Topic 718. For a discussion of the assumptions and methodology used to calculate the value of our stock options, see Note 11 to our audited financial statements included in Item 8 of the Annual Report to Stockholders.

(2) The table below shows the aggregate number of option awards outstanding for each of our non-employee directors as of December 31, 2021:

| Name | Option Awards (#) |
|---------------------|--------------------------|
| Dr. James Callaway | 79,168 |
| Firdaus Jal Dastoor | 82,956 |
| Dr. Roger Kornberg | 81,252 |
| Adam Logal | 79,168 |

(3) Dr. Borisenko has opted not to receive any compensation for his Board service during 2021.

(4) Dr. Genkin resigned from the Board effective July 15, 2021.

See “Certain Related Person Transactions” below for compensation arrangements involving specific members of the Board.

Proposal 3

Approval By Non-Binding Advisory Vote Of The Resolution Approving Named Executive Officer Compensation

We have determined that our stockholders should vote on the compensation of our named executive officers each year, consistent with the preference expressed by our stockholders at the 2018 Annual Meeting of Stockholders. The Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”) requires all public companies to hold a separate non-binding advisory stockholder vote to approve the compensation of named executive officers as reported in this proxy statement (commonly known as the “Say On Pay” vote). It is expected that the next vote on the frequency of a Say on Pay vote will occur at the 2024 Annual Meeting of Stockholders.

Pursuant to Section 14A of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and as a matter of good corporate governance, the Company is asking stockholders to approve the following Say on Pay advisory resolution at the Annual Meeting:

RESOLVED, that the stockholders of Xenetic Biosciences, Inc. (the “Company”) hereby approve, on an advisory basis, the compensation paid to the Company’s named executive officers as disclosed in this proxy statement pursuant to the SEC’s disclosure rules, including the narrative discussion in the section entitled “Executive Compensation”, the Summary Compensation Table and the related compensation tables, notes and narrative in the Proxy Statement for the Company’s 2022 Annual Meeting of Stockholders.

This advisory resolution is not binding on the Company. Although non-binding, the Board and the Compensation Committee value the opinions of our stockholders and will carefully review and consider the voting results when evaluating our named executive officer compensation.

The Board Of Directors Recommends a Vote “For” The Say on Pay Proposal

Proposal 4

Approval of The Common Stock Amendment

Our Board of Directors has adopted a resolution (i) approving an amendment to Article III of our articles of incorporation that would increase the number of authorized shares of common stock, par value \$0.001 per share (the “Common Stock”), from 50,000,000 shares to 100,000,000 shares (the “Common Stock Amendment”) and (ii) directing that the Common Stock Amendment be submitted to the stockholders for approval at the Annual Meeting.

The Proposed Common Stock Amendment

If the proposed Common Stock Amendment is approved by our stockholders and subsequently filed with the Nevada Secretary of State, Article III of the articles of incorporation would be amended and restated in its entirety to read:

“Section 1. Authorized Shares. The aggregate number of shares which the Corporation shall have authority to issue is one hundred ten million (110,000,000) shares, consisting of two classes to be designated, one hundred million (100,000,000) shall be designated as “Common Stock” and ten million (10,000,000) shares shall be designated as undifferentiated blank check “Preferred Stock,” with all of such shares have a par value of \$.001 per share.

The Preferred Stock may be issued in one or more series, each series to be appropriately designated by a distinguishing letter or title, prior to the issuance of any shares thereof. The voting powers, designations, preferences, limitations, restrictions, and relative, participating, optional and other rights, and the qualifications, limitations, or restrictions thereof, of the Preferred Stock shall hereinafter be prescribed by resolution of the board of directors pursuant to Section 3 of this Article III.”

Only the number of shares of Common Stock the Company is authorized to issue would be affected by the Common Stock Amendment. Except for this change, the proposed Common Stock Amendment would not affect any other provision of the articles of incorporation. If approved by a majority of holders of our outstanding shares of Common Stock entitled to vote as of the record date, we will file the Common Stock Amendment, in substantially the form attached hereto as [Appendix A](#), with the Nevada Secretary of State.

Reasons for the Common Stock Amendment

Our Board believes that an increase in the number of authorized shares of the Company's Common Stock from 50,000,000 shares to 100,000,000 shares is in the best interests of our stockholders. Increasing the number of authorized shares of Common Stock will enable us to engage in capital raising transactions and other strategic transactions involving the issuance of equity securities. We have limited capital and in order for us to execute on our business plan, including the continued research and development relating to our Deoxyribonuclease ("DNase") platform, and remain viable as a going concern, we must have the flexibility to engage in capital raising transactions until we are able to generate sufficient revenue and cash flow.

We significantly rely on our authorized Common Stock for capital raising opportunities and other strategic transactions, among other things. If we do not increase the number of shares of our Common Stock authorized for issuance, we may be limited in future capital raising opportunities that would require the issuance of shares of our Common Stock. The number of shares of our Common Stock may be further limited in the event we are required to enact a reverse stock split to maintain our continued listing on Nasdaq, as further described in the section below titled "Number of Shares of Common Stock Currently Outstanding and Subject to Issuance". Increasing the number of authorized shares of Common Stock will enable us to issue Common Stock or securities convertible or exercisable into Common Stock to investors. Additionally, the increase in additional shares of Common Stock will allow us to issue shares of Common Stock or securities convertible or exercisable into Common Stock to strategic partners in connection with strategic partnerships, collaboration agreements, research and development agreements and other transactions that we may pursue from time to time. These transactions, if they can be successfully negotiated and consummated, will help us fund our business plan. Further, we rely on our authorized Common Stock to provide equity incentive opportunities in order to continue to attract, retain and motivate highly qualified management and key personnel. The increase in authorized shares of Common Stock would provide us with the flexibility in the event we need to issue additional shares of Common Stock or securities convertible or exercisable into Common Stock to employees. You should be aware that these potential capital raising transactions or other strategic transactions and potential incentive compensation awards involving the issuance of additional shares of Common Stock will have a dilutive effect on our existing stockholders, as further described in the section below titled "Effects of Increase."

If the increase is not approved, we will be limited in our efforts to raise additional capital, engage in strategic transactions and issue additional equity incentive to retain the management and personnel in excess of what is currently reserved for future issuance under our Equity Plan. In such event, our operations, financial condition and our ability to continue as a going concern may be materially and adversely affected.

Notwithstanding the foregoing rationales for approving the increase in the authorized number of shares of our common stock, at the present time, we have no specific plans, agreements, arrangements, or understandings, written or oral, to issue the additional authorized shares that may become available if the Common Stock Amendment is approved.

Number of Shares of Common Stock Currently Outstanding and Subject to Issuance

As of the record date, we had approximately 14.3 million shares of Common Stock issued and outstanding, excluding:

- Approximately 0.7 million shares of Common Stock issuable upon the conversion of outstanding Preferred Stock;
- Approximately 6.0 million shares of Common Stock issuable upon the exercise of outstanding options, warrants and restricted stock units;
- Approximately 1.2 million shares of Common Stock reserved for future issuance under our Equity Plan; and
- Approximately 1.0 million shares of Common Stock contingently issuable in connection with the attainment of certain milestones related to our recently acquired DNase systemic enzyme program.

Our Common Stock is listed on the Nasdaq Capital Market, and for continued listing on the Nasdaq Capital Market, we are required to comply with the continued listing requirements, including the minimum closing bid price requirement (the "Bid Price Requirement"). On June 3, 2022, we received a written notification from the Listing Qualifications Department of Nasdaq notifying the Company that the closing bid price for our Common Stock had been below \$1.00 for 30 consecutive business days and that the Company therefore is not in compliance with the Bid Price Requirement. The Company has until November 30, 2022 (the "Compliance Date"), to regain compliance with the Bid Price Requirement and may be eligible for an additional 180 calendar day compliance period (the "Additional Compliance Period"). To qualify for the Additional Compliance Period, the Company will be required to meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for the Nasdaq Capital Market, with the exception of the Bid Price Requirement, and will need to provide written notice of its intention to cure the deficiency during the Additional Compliance Period, including by effecting a reverse stock split, if necessary. If the closing bid price for our Common Stock does not trade above \$1.00 by the Compliance Date, or, if we are eligible for the Additional Compliance Period, by the end of such Additional Compliance Period, then it may be necessary to effect a reverse stock split to regain compliance with the Bid Price Requirement. With 100,000,000 authorized shares of Common Stock, we will have greater flexibility in the event that we determine that a reverse stock split is necessary or advisable in order to comply with the Bid Price Requirement. If such a reverse split is necessary or advisable, we would be required to implement a proportionate reduction in our authorized Common Stock. As a result, if we do not have a sufficiently high authorized share amount, we could have limited shares available for capital raising following any such reverse stock split.

Effects of Increase

The additional authorized but unissued shares of Common Stock may generally be issued from time to time for such proper corporate purposes as may be determined by our Board or, as required by law or the rules of Nasdaq, with the approval and authorization of our stockholders. Our Board does not intend to solicit further stockholder approval prior to the issuance of additional shares of Common Stock, except as may be required by applicable law or by the rules of Nasdaq.

The possible future issuance of shares of our Common Stock or securities convertible or exercisable into our Common Stock could affect our current stockholders in a number of ways. The issuance of new shares of Common Stock will cause immediate dilution of the ownership interests and the voting power of our existing stockholders. New issuances of Common Stock may also affect the number of dividends, if any, paid to such stockholders and may reduce the share of the proceeds that they would receive upon the future liquidation, if any, of the Company.

In addition, the future issuance of shares of our Common Stock or securities convertible or exercisable into shares of our Common Stock could:

- dilute and affect the market value of our trading securities;

- dilute the earnings per share, if any, and book value per share of the outstanding shares of our Common Stock; and
- make the payment of dividends on Common Stock, if any, potentially more expensive.

Anti-Takeover Effects

Although the Common Stock Amendment is not motivated by anti-takeover concerns and is not considered by our Board to be an anti-takeover measure, the availability of additional authorized shares of Common Stock could enable the Board to issue shares defensively in response to a takeover attempt or to make an attempt to gain control of our Company more difficult or time-consuming. For example, shares of Common Stock could be issued to purchasers who might side with management in opposing a takeover bid that the Board determines is not in the best interests of our stockholders, thus diluting the ownership and voting rights of the person seeking to obtain control of our Company. In certain circumstances, the issuance of Common Stock without further action by the stockholders may have the effect of delaying or preventing a change in control of the Company, may discourage bids for our Common Stock at a premium over the prevailing market price and may adversely affect the market price of our Common Stock. As a result, increasing the authorized number of shares of our Common Stock could render more difficult and less likely: a hostile takeover of our Company by a third-party, a tender offer or proxy contest, assumption of control by a holder of a large block of our stock, and the possible removal of our incumbent management. We are not aware of any proposed attempt to take over the Company or of any present attempt to acquire a large block of our Common Stock.

Required Vote and Board of Directors Recommendation

Approval of this Proposal 4 requires the affirmative vote of stockholders that represent a majority of the voting power entitled to vote on the Common Stock Amendment.

The Board of Directors Recommends a Vote in Favor of Proposal 4.

33

Transactions With Related Persons

During the fiscal years ended December 31, 2021 and December 31, 2020, there was not, nor is there any currently proposed transaction or series of similar transactions to which Xenetic was or is to be a party in which the amount involved exceeded or exceeds the lesser of \$120,000 or 1% of the average of our total assets at year end for the last two completed fiscal years and in which any executive officer, director or holder of more than 5% of any class of voting securities of Xenetic and members of that person's immediate family had, has or will have a direct or indirect material interest, other than as set forth in "Executive Compensation" and "Director Compensation Table" above and as disclosed below.

Policy Regarding Related Party Transactions

Our Board adopted an amended written related party transaction policy on August 27, 2020 to set forth the policies and procedures for the review and approval or ratification of related party transactions by our audit committee, which replaced the policy previously adopted in November 1, 2016. Any transaction between the Company and its officers, directors, principal stockholders or affiliates is required to be on terms no less favorable to us than could be reasonably obtained in arms-length transactions with independent third-parties. Transactions described in this section that occurred prior to November 1, 2016 were not covered by the Company's related party transaction policy.

Certain Related Person Transactions

PJSC Pharmsynthez

Pharmsynthez directly, and indirectly through its wholly-owned subsidiary SynBio LLC ("SynBio"), had a share ownership in the Company of approximately 3% of the total outstanding common stock at September 30, 2022. In addition to its common stock ownership, Pharmsynthez holds approximately 1.5 million shares of our outstanding Series B Preferred Stock at September 30, 2022 and all of our outstanding Series A Preferred stock. In addition, one of our former directors, Dr. Dmitry Genkin, is the Executive Chairman of the board of directors of Pharmsynthez, and, prior to March 31, 2022, Dr. Grigory Borisenko, one of our current directors, was employed as the Investment Director of Rusnano LLC, an entity affiliated with Pharmsynthez. Additionally, one of our executive officers, Dr. Curtis Lockshin, is an officer of a wholly-owned subsidiary of Pharmsynthez. In November 2009, the Company entered into a collaborative research and development license agreement with Pharmsynthez (the "Pharmsynthez Arrangement") pursuant to which the Company granted an exclusive license to Pharmsynthez to develop, commercialize and market six product candidates based on the Company's PolyXen and ImuXen technology in certain territories. In exchange, Pharmsynthez granted an exclusive license to the Company to use any preclinical and clinical data developed by Pharmsynthez, within the scope of the Pharmsynthez Arrangement, and to engage in further research, development and commercialization of drug candidates outside of certain territories at the Company's own expense. There are no milestones or other research related payments provided for under the Pharmsynthez Arrangement other than royalties.

During the third quarter of 2019, the Company entered into a sponsored research agreement with Pharmsynthez (the "SRA") related to experiments identified by the Company to support its efforts for initial tech transfer of the XCART methods to a future academic collaborator. Under the agreement, the Company made a \$350,000 payment to Pharmsynthez during the third quarter of 2019, which was refundable on a pro rata basis if the project is terminated prematurely as a result of Pharmsynthez failing to perform the work. On June 12, 2020, the Company and Pharmsynthez entered into a Master Services Agreement ("MSA") to advance the development of the Company's XCART technology for B-cell malignancies. The MSA terminated and superseded the SRA.

Under the MSA, Pharmsynthez agreed to provide services pursuant to work orders agreed upon by the parties from time to time, which services include, but are not limited to, acting as the Company's primary contract research organization to assist in managing collaborations with multiple academic institutions in Russia and Belarus. The Company is required to pay reasonable fees, expenses and pass-through costs incurred by Pharmsynthez in providing the services in accordance with a budget and payment terms set forth in each work order. Additionally, in the event that a work order provides for milestone payments, the Company is required to make such payments to Pharmsynthez, or third party service providers designated by Pharmsynthez, in accordance with the terms set forth in the work order, which milestone payments may be made, at the sole discretion of the Company, in cash or shares of the Company's common stock.

34

The Company and Pharmsynthez executed a work order on June 12, 2020 (the “Work Order”) under the MSA pursuant to which Pharmsynthez agreed to conduct a Stage I study of the Company’s XCART technology under the research program as set forth in the Work Order. The activities to be performed under the Work Order were expected to take approximately 20 months unless earlier terminated in accordance with the MSA. Under the terms of the Work Order, the Company paid Pharmsynthez \$51,000 as an initial payment for trial startup costs, which amount was credited against the amounts paid under the SRA. The Work Order provides for additional pass-through costs to be invoiced by Pharmsynthez upon execution of contracts with third party sites, which were to be further credited against the SRA. Through December 31, 2021, all costs incurred under the MSA were credited against the amounts paid under the SRA. Additionally, the Work Order provided for milestone payments of up to an aggregate of \$1,050,000, or, in the Company’s sole discretion, up to an aggregate of 1,000,000 shares of the Company’s common stock, to be paid or issued, as applicable, by the Company upon achievement of milestones associated with completion of early stages of the research program as set forth in the Work Order.

On October 12, 2021, the Company entered into Amendment Number One to the MSA (the “MSA Amendment”) with Pharmsynthez to, among other things, terminate all work orders under the MSA. As a result, no further services were to be performed under the Work Order and any additional services will be covered by new work orders. In exchange, the Company entered into a new work order (the “Second Work Order”) simultaneously with the MSA Amendment. Under the terms of the Second Work Order, Pharmsynthez shall provide certain enumerated services to support the Company’s development of its XCART technology upon the written request of the Company, which work may be requested by the Company from time to time.

Pursuant to the MSA Amendment and Second Work Order, upon entry into the Second Work Order, the Company made a one-time \$40,000 payment to Pharmsynthez, of which \$21,000 was a one-time payment in full for all money and other compensation owed by the Company under the Work Order, and the remaining \$19,000 will be creditable against any out of pocket costs and expenses incurred by Pharmsynthez on behalf of the Company pursuant to any new work orders initiated after the effective date of the MSA Amendment, including the Second Work Order.

During the fourth quarter of 2019, the Company entered into a loan agreement with Pharmsynthez (the “Pharmsynthez Loan”), pursuant to which the Company advanced Pharmsynthez an aggregate principal amount of up to \$500,000 to be used for the development of a specific product under the Co-Development Agreement. The Pharmsynthez Loan had a term of 15-months and accrued interest at a rate of 10% per annum. The Pharmsynthez Loan is guaranteed by all of the operating subsidiaries of Pharmsynthez, including SynBio and AS Kevelt, and is secured by all of the common and preferred stock of the Company owned by Pharmsynthez and SynBio. The Company recognized approximately \$48,000 and \$51,000 of interest income related to the Pharmsynthez Loan during the twelve-months ended December 31, 2021 and 2020, respectively.

Effective January 23, 2021, the Company entered into a First Amendment to Loan Agreement and Other Loan Documents with Pharmsynthez, Kevelt and SynBio (the “Pharmsynthez Loan Extension”) to modify the repayment terms and maturity of the Pharmsynthez Loan to January 2022. The terms of the Pharmsynthez Loan Extension called for two (2) equal monthly principal payments of \$25,000 in each of January 23, 2021 and February 28, 2021 and the payment of all outstanding accrued interest in six (6) equal installments from January 31, 2021 through June 30, 2021. In addition, the Pharmsynthez Loan Extension required monthly interest payments and the repayment of the remaining principal amount in six (6) equal monthly installments from August 2021 through January 2022.

Effective August 31, 2021, the Company entered into a Second Amendment to Loan Agreement and Other Loan Documents with Pharmsynthez, Kevelt and SynBio (the “Second Pharmsynthez Loan Extension”) to modify the repayment terms and maturity of the Pharmsynthez Loan to July 2022. The terms of the Second Pharmsynthez Loan Extension called for an upfront fee of \$12,500 and two (2) equal monthly principal payments of \$25,000 on September 30, 2021 and October 31, 2021. In addition, the Second Pharmsynthez Loan Extension required monthly interest payments and the repayment of the remaining principal amount in six (6) equal monthly installments from February 2022 through July 2022. All other terms of the Pharmsynthez Loan, as amended, remained in effect. All required payments under the Second Pharmsynthez Loan Extension had been made through January 31, 2022. In February 2022, the Company received a request from Pharmsynthez to further extend the principal repayments and the maturity of the loan. While the Company is working with Pharmsynthez to extend the maturity date of the loan, the terms of such extension are under negotiation and have not yet been finalized.

SynBio LLC

In August 2011, SynBio, a wholly-owned subsidiary of Pharmsynthez, and the Company entered into a stock subscription and collaborative development agreement (the “Co-Development Agreement”). The Company granted an exclusive license to SynBio to develop, market and commercialize certain drug candidates utilizing molecule(s) based on SynBio’s technology and the Company’s proprietary technologies (PolyXen, OncoHist and ImuXen) in Russia and the Commonwealth of Independent States (“CIS”), collectively referred to herein as the SynBio Market. In return, SynBio granted an exclusive license to the Company to use the preclinical and clinical data generated by SynBio in certain agreed products and engage in the development of commercial candidates in any territory outside of the SynBio Market.

SynBio and the Company are each responsible for funding and conducting their own research and clinical development activities. There are no milestone or other research-related payments provided for under the Co-Development Agreement other than fees for the supply of each company’s respective research supplies based on their technology, which, when provided, are due to mutual convenience and not representative of an ongoing or recurring obligation to supply research supplies. Serum Institute of India Limited (“Serum Institute”) has agreed to directly provide the research supplies to SynBio, where the Company is not liable for any failure to supply the research supplies as a result of any act or fault of Serum Institute. Upon successful commercialization of any resultant products, the Company is entitled to receive a 10% royalty on sales in certain territories and pay royalties to SynBio for sales outside those certain territories subject to the terms of the Co-Development Agreement. Effective December 20, 2021, SynBio assigned the Co-Development Agreement to Pharmsynthez.

Through December 31, 2021, Pharmsynthez continued to engage in research and development activities with no resultant commercial product. In December 2020, Pharmsynthez reported positive data from its Phase 3 clinical study of Epolong, a treatment for anemia in patients with chronic kidney disease leveraging the Company’s PolyXen technology. In February 2021, Pharmsynthez reported in a press release that it had started the registration phase of Epolong by filing a registration dossier to obtain approval in Russia. Pharmsynthez had reported in its press release that it expected that the Russian stage of registration activities would be completed in 2021 and that it would be able to start production of the product as early as the first quarter of 2022. Pharmsynthez has not informed the Company that the registration process has been completed or that production of the product has commenced. The Company did not recognize revenue in connection with the Co-Development Agreement during the years ended December 31, 2021 and 2020.

Serum Institute

Serum Institute had a share ownership of less than 1% of the Company’s total outstanding common stock as of March 31, 2022. One of the Company’s directors, Firdaus Jal Dastoor, is currently a Group Director in charge of Finance and Corporate Affairs and Company Secretary of Serum Institute. In August 2011, the Company entered into a collaborative research and development agreement with Serum Institute providing Serum Institute an exclusive license to use our PolyXen technology to research and develop one potential commercial product, Polysialylated Erythropoietin (“PSA-EPO”). Serum Institute is responsible for conducting all preclinical and clinical trials required to achieve regulatory approvals within the certain predetermined territories at Serum Institute’s own expense. Royalty payments are payable by Serum Institute to the Company for net sales to certain customers in the Serum Institute sales territory. Royalty payments are payable by the Company to Serum Institute for net sales received by the Company over the term of the license. There are no milestone or other research-related payments due under the collaborative arrangement.

Through December 31, 2021, Serum Institute continued to engage in research and development activities with no resultant commercial products. No royalty revenue or expense was recognized by the Company related to the Serum Institute arrangement during the years ended December 31, 2021 and 2020.

CLS Therapeutics, Ltd.

In April 2022, the Company entered into exclusive License and Sublicense Agreements with CLS Therapeutics Ltd. (“CLS”) (collectively, the “CLS Agreements”) to develop its interventional DNase based oncology platform. One of the Company’s directors, Roger Kornberg, is a member of the scientific advisory board of CLS, however, Mr. Kornberg does not own any equity of CLS and is not receiving any economic benefit as a result of the transactions contemplated by the CLS Agreements. In connection with the CLS Agreements, the Company entered into subscription agreements with CLS and OPKO pursuant to which the Company agreed to issue to CLS and OPKO, and CLS and OPKO agreed to subscribe for, 625,000 and 250,000 shares, respectively, of the Company’s common stock. Mr. Adam Logal, one of our directors, is Senior Vice President, Chief Financial Officer, Chief Accounting Officer and Treasurer of OPKO.

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for Annual Meeting materials with respect to two or more stockholders sharing the same address by delivering a single set of Annual Meeting materials addressed to those stockholders. This process, which is commonly referred to as “householding,” potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of brokers with account holders who are the Company’s stockholders will be “householding” our proxy materials. A single set of Annual Meeting materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your 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 set of Annual Meeting materials, please notify your broker or the Company. Direct your written request to Xenetic Biosciences, Inc., to the attention of our Corporate Secretary, 945 Concord Street, Framingham, Massachusetts 01701 or contact our Corporate Secretary at 781-778-7720. Stockholders who currently receive multiple copies of these materials at their addresses and would like to request “householding” of their communications should contact their brokers.

Other Matters

The Board knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board of Directors

/s/ James Parslow

James Parslow
Secretary

_____, 2022

A copy of the Company’s Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 2021, as amended, is available without charge upon written request to: Corporate Secretary, Xenetic Biosciences, Inc., 945 Concord Street, Framingham, Massachusetts 01701.

APPENDIX A

BARBARA K. CEGAVSKE
 Secretary of State
 202 North Carson Street
 Carson City, Nevada 89701-4201
 (775) 684-5708
 Website: www.nvsos.gov.

Certificate of Amendment
 (PURSUANT TO NRS 78.385 and 78.390)

Certificate of Amendment to Articles of Incorporation
For Nevada Profit Corporations
 (Pursuant to NRS 78.385 and 78.390 - After Issuance of Stock)

1. Name of Corporation:
 XENETIC BIOSCIENCES, INC.

2. Section 1 of Article III of the articles have been amended as follows:

Article III, Section 1

Section 1. Authorized Shares. The aggregate number of shares which the Corporation shall have authority to issue is one hundred ten million (110,000,000) shares, consisting of two classes to be designated, one hundred million (100,000,000) shares shall be designated as "Common Stock" and ten million (10,000,000) shares shall be designated as undifferentiated blank check "Preferred Stock," with all of such shares have a par value of \$.001 per share.

The Preferred Stock may be issued in one or more series, each series to be appropriately designated by a distinguishing letter or title, prior to the issuance of any shares thereof. The voting powers, designations, preferences, limitations, restrictions, and relative, participating, optional and other rights, and the qualifications, limitations, or restrictions thereof, of the Preferred Stock shall hereinafter be prescribed by resolution of the board of directors pursuant to Section 3 of this Article III.

3. The vote by which the stockholders holding shares in the corporation entitling them to exercise at least a majority of the voting power, or such greater proportion of the voting power as may be required in the case of a vote by classes or series, or as may be required by the provisions of the articles of incorporation* have voted in favor of the amendment is: _____%

4. Effective date and time of filing: Date: _____ Time: _____

5. Signature:

X _____

BARBARA K. CEGAVSKE
 Secretary of State
 206 North Carson Street
 Carson City, Nevada 89701-4299
 (775) 684-5708
 Website: www.nvsos.gov

Certificate of Change filed Pursuant to NRS 78.209
For Nevada Profit Corporations

1. Name of corporation:
 Xenetic Biosciences, Inc.

Entity or Nevada Business Identification Number (NVID): NV20111523936

2. The current number of authorized shares and the par value, if any, of each class or series, if any, of shares before the change:

50,000,000 common shares, par value \$0.001
 10,000,000 preferred shares, par value \$0.001

3. The number of authorized shares and the par value, if any, of each class or series, if any, of shares after the change:

100,000,000 common shares, par value \$0.001
 10,000,000 preferred shares, par value \$0.001

4. The number of shares of each affected class or series, if any, to be issued after the change in exchange for each issue share of the same class or series:

5. The provisions, if any, for the issuance of fractional shares, or for the payment of money or the issuance of scrip to stockholders otherwise entitled to a fraction of a share and the percentage of outstanding shares affected thereby:

6. The required approval of the stockholders has been obtained.

7. Effective date and time of filing (optional):

Date:

Time:

8. Signature: (required):

X

Signature of Officer

Title

Date

XENETIC BIOSCIENCES, INC.
345 CONCORD STREET
FRAMINGHAM, MA 01701



VOTE BY INTERNET

Before The Meeting - Go to www.proxyvote.com or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time on December 6, 2022. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/XBIO2022

You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time on December 6, 2022. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

D91759-P80918

KEEP THIS PORTION FOR YOUR RECORDS
DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

| | | | | | | | |
|---|-----------------------|--------------------------|--------------------------|--------------------------|---|----------------------|----------------|
| XENETIC BIOSCIENCES, INC. | | For All | Withhold All | For All Except | To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below. | | |
| The Board of Directors recommends you vote FOR the following: | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 1. Election of Directors | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | | |
| Nominees: | | | | | | | |
| 01) Grigory Borisenko | 05) Roger Kornberg | | | | | | |
| 02) James Callaway | 06) Adam Logal | | | | | | |
| 03) Firdaus Jai Dastoor | 07) Alexey Vinogradov | | | | | | |
| 04) Jeffrey Eisenberg | | | | | | | |
| The Board of Directors recommends you vote FOR proposals 2, 3 and 4. | | | | | For | Against | Abstain |
| 2. To ratify the selection by the Audit Committee of Marcum LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2022. | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 3. Non-binding advisory vote to approve the Company's named executive officer compensation. | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 4. Approval of an amendment to the Company's Articles of Incorporation to increase the authorized shares of the Company's common stock. | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| In their discretion, the proxies are authorized to vote upon such other business as may properly come before the meeting or any postponement or adjournment thereof. | | | | | | | |
| Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer. | | | | | | | |
| <input type="text"/> | | <input type="text"/> | | <input type="text"/> | | <input type="text"/> | |
| Signature [PLEASE SIGN WITHIN BOX] | | Date | | Signature (Joint Owners) | | Date | |

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:
The Proxy Statement, Form 10-K and Form 10-K/A are available at www.proxyvote.com.

XENETIC BIOSCIENCES, INC.
Annual Meeting of Stockholders
December 7, 2022, 9:30 AM EST
This proxy is solicited by the Board of Directors

The undersigned, revoking all prior proxies, hereby appoints Jeffrey F. Eisenberg and James Parslow, or either of them, as proxies of the undersigned (with full power to act without the other and to appoint his substitute) to attend and represent the undersigned at the virtual-only Annual Meeting of the Stockholders of Xenetic Biosciences, Inc. (the "Company") to be held by means of a live on-line webcast at www.virtualshareholdermeeting.com/XBIO2022 on December 7, 2022 at 9:30 a.m. ET, and at any adjournments or postponements thereof, and to act and vote as indicated, upon all matters referred to on the previous page and described in the proxy statement relating to the annual meeting, all shares of common stock of the Company which the undersigned would be entitled to vote or act upon, with all powers the undersigned would possess, if personally present at the meeting and at any adjournments or postponements thereof.

This proxy, when properly executed and returned in a timely manner, will be voted as indicated herein. If no indication is made, then this proxy will be voted in accordance with the recommendation of the Board of Directors in favor of electing all seven director nominees and in favor of Proposals 2, 3 and 4. THE PROXIES ARE AUTHORIZED TO VOTE IN THEIR DISCRETION ON ANY OTHER BUSINESS AS PROPERLY MAY COME BEFORE THE MEETING, OR ANY ADJOURNMENT OR POSTPONEMENT THEREOF.

Attendance of the undersigned at the meeting or at any adjournment or postponement thereof will not be deemed to revoke this proxy unless the undersigned shall affirmatively indicate thereof the intention of the undersigned to vote said shares in person. If the undersigned hold(s) any of the shares of the Company in a fiduciary, custodial or joint capacity or capacities, this proxy is signed by the undersigned in every such capacity as well as individually.

Continued and to be signed on reverse side
