

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

SCHEDULE 14A

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

Filed by the Registrant Filed by a party other than the Registrant

Check the appropriate box:

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

Precigen, Inc.

(Name of Registrant as Specified In Its Charter)

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

Payment of Filing Fee (Check the appropriate box):

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

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

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(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:



PRECIGEN, INC.
20374 Seneca Meadows Parkway
Germantown, Maryland 20876

NOTICE OF 2021 ANNUAL MEETING OF SHAREHOLDERS
To Be Held On June 10, 2021

To Our Shareholders:

You are cordially invited to attend the 2021 Annual Meeting of Shareholders (the "Annual Meeting") of Precigen, Inc. ("Precigen," "we," "us," "our," or the "Company") to be held in virtual meeting format only at 9:00 a.m. Eastern Time, Thursday, June 10, 2021, for the following purposes:

1. to elect the ten nominees named in the accompanying Proxy Statement to the Board of Directors, each to serve a one-year term expiring at the earlier of the next Annual Meeting or until his or her successor is duly elected and qualified;
2. to ratify the appointment by the Audit Committee of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2021;
3. to approve a non-binding advisory resolution approving the compensation of the named executive officers; and
4. to transact any other business that may properly be brought before the Annual Meeting or any adjournments or postponements thereof.

To join the meeting webcast, go to www.VirtualShareholderMeeting.com/PGEN2021 shortly before the meeting time and follow the instructions.

As of the date of this notice, we have not received notice of any matters, other than those set forth above, that may properly be presented at the Annual Meeting. If any other matters are properly presented for consideration at the meeting, the persons named as proxies on the proxy card, or their duly constituted substitutes, will be deemed authorized to receive notice on behalf of and to vote the shares represented by proxy or otherwise act on those matters in accordance with their business judgment.

The Board of Directors has fixed the close of business on April 13, 2021 as the record date for determining those shareholders entitled to notice of and to vote at the Annual Meeting. As permitted by rules adopted by the Securities and Exchange Commission, we are furnishing our Proxy Statement, Annual Report on Form 10-K for the year ended December 31, 2020 (the "2020 Annual Report"), and proxy card over the internet to our shareholders. This means that our shareholders will receive only a notice containing instructions on how to access the proxy materials over the internet. If you would like to receive a paper copy of the proxy materials, the notice contains instructions on how you can request copies of these documents.

Your vote is very important to us. Please read the Proxy Statement and then, regardless of whether you are able to attend the Annual Meeting, vote your shares as promptly as possible. Please note that in the absence of specific instructions as to how to vote, brokers may not vote your shares on the election of directors, or the non-binding proposal to approve the compensation of the named executive officers. You may revoke your proxy and change your vote by entering new instructions on either the telephone or internet voting system before 11:59 p.m. Eastern Time on June 9, 2021, by submitting a proxy with a later date before the polls close at the Annual Meeting, by delivering a written revocation to our Corporate Secretary such that it is received before the polls close at the Annual Meeting, or by voting your shares in person at the Annual Meeting. Please note that voting in advance in any of the ways described will not prevent you from attending the Annual Meeting should you choose to do so. Even if you cannot attend the Annual Meeting, please vote your shares as promptly as possible.

By Order of the Board of Directors,
DONALD P. LEHR
Corporate Secretary

Germantown, Maryland
April 28, 2021

**IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF
SHAREHOLDERS TO BE HELD ON June 10, 2021**

Our Proxy Statement, including the accompanying notice and form of proxy, and our 2020 Annual Report are available online, free of charge, at <https://materials.proxyvote.com>.

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PRECIGEN, INC.
20374 Seneca Meadows Parkway
Germantown, Maryland 20876

PROXY STATEMENT
2021 Annual Meeting of Shareholders

This Proxy Statement and the accompanying proxy card are being furnished to you by the Board of Directors (the “Board”) of Precigen, Inc. to solicit your proxy to vote your shares at our Annual Meeting, or at any adjournments or postponements thereof. The Annual Meeting will be held via an interactive webcast and will be called to order at 9:00 a.m. Eastern Time, on Thursday, June 10, 2021. To join the meeting webcast, go to www.VirtualShareholderMeeting.com/PGEN2021 at least fifteen minutes before the meeting time and follow the instructions. You will need the 16-digit control number on your proxy card to join the meeting.

On or about April 28, 2021, we will commence mailing a notice to shareholders containing instructions on how to access the Proxy Statement, including the accompanying notice and form of proxy, and the 2020 Annual Report, and on how to vote. These materials are being made available to you on the internet at www.proxyvote.com, however, we will promptly deliver printed versions of these materials to you by mail upon your request if submitted by May 27, 2021.

QUESTIONS AND ANSWERS ABOUT THE ANNUAL MEETING

1. Who is asking for my vote and why am I receiving this document?

The Board asks that you vote on the matters listed in the Notice of 2021 Annual Meeting of Shareholders, which are more fully described in this Proxy Statement. We are providing this Proxy Statement and related proxy card to our shareholders in connection with the solicitation by the Board of proxies to be voted at the Annual Meeting. A proxy, if duly executed and not revoked, will be voted and, if it contains any specific instructions, will be voted in accordance with those instructions.

2. Who is entitled to vote?

Only holders of record of outstanding shares of our common stock at the close of business on April 13, 2021, are entitled to notice of and to vote at the Annual Meeting. At the close of business on April 13, 2021, there were 206,414,135 outstanding shares of common stock. Each share of common stock is entitled to one vote on each matter properly brought before the Annual Meeting.

3. What is a proxy?

A proxy is your legal designation of another person to vote the stock you own. If you designate someone as your proxy or proxy holder in a written document, that document is called a proxy or a proxy card. Dr. Helen Sabzevari and Mr. Donald P. Lehr, or each of them, have been designated as proxies or proxy holders for the Annual Meeting. A proxy properly executed and received by our Corporate Secretary by 11:59 p.m. Eastern Time on June 9, 2021 and not revoked will be voted in accordance with the terms thereof.

4. What is a voting instruction?

A voting instruction is the instruction form you receive from your bank, broker, or its nominee if you hold your shares of common stock in street name. The instruction form instructs you how to direct your bank, broker, or its nominee, as record holder, to vote your shares of common stock.

5. What am I voting on?

Shareholders are being asked to vote on each of the following items of business:

- the election to the Board of the ten nominees named in this Proxy Statement, each to serve a one-year term expiring at the earlier of the next Annual Meeting or until his or her successor is duly elected and qualified;
- the ratification of the appointment by the Audit Committee of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2021; and
- the approval of a non-binding advisory resolution approving the compensation of the named executive officers.

In addition, any other matters that properly come before the Annual Meeting or any adjournment or postponement thereof will be considered. Management is presently aware of no other business to come before the Annual Meeting.

6. How many votes must be present to hold the Annual Meeting?

A majority of the outstanding shares of common stock entitled to be cast as of the record date must be present in person or represented by proxy at the Annual Meeting. This is referred to as a quorum. Abstentions, withheld votes, and shares of record held by a broker or its nominee (“broker shares”) that are voted on any matter are included in determining the existence of a quorum. Broker shares that are not voted on any matter (“broker non-votes”) will not be included in determining whether a quorum is present.

7. What are the voting requirements to elect directors and approve the other proposals described in the Proxy Statement?

The vote required to elect directors and approve each of the matters scheduled for a vote at the annual meeting is set forth below:

Proposal	Vote Required
1. Election of directors	Majority of votes cast
2. Ratification of appointment of Deloitte & Touche LLP	Majority of votes cast
3. Advisory vote on executive compensation	Majority of votes cast

Votes may be cast by proxy or in person. A “majority” of votes cast means that more votes were cast “for” the proposal than “against.” Abstentions and broker non-votes (described under “How are abstentions and broker non-votes counted?”) are not considered as votes cast and will have no effect on the vote outcome for Proposals 1, 2 and 3. As it relates to the election of our directors, our Corporate Governance Guidelines provide that any nominee for director in an uncontested election who receives a greater number of shareholder votes cast “against” his or her election than votes “for” his or her election must, promptly following certification of the shareholder vote, tender his or her resignation to the Board for consideration. For more details regarding the director resignation policy, please see “Election of Directors.”

8. What are the voting recommendations of the Board?

For the reasons set forth in more detail later in this Proxy Statement, *the Board unanimously recommends that you vote:*

- **FOR** the proposed nominees to the Board named in this Proxy Statement;

- **FOR** the ratification of the appointment of Deloitte & Touche LLP; and
- **FOR** the approval of the non-binding advisory resolution to approve the compensation of our named executive officers.

9. How do I vote?

Registered shareholders (shareholders who hold common stock in certificated form or book entry form on the records of our transfer agent as opposed to through a bank, broker or other nominee) may vote in person at the Annual Meeting or by proxy. There are three ways for registered shareholders to vote by proxy before the Annual Meeting:

- **By Internet:** Connect to the internet at www.proxyvote.com and follow the instructions included on the proxy card or voting instruction. Your proxy will be voted according to your instructions. If you vote by internet, you do not need to mail in a proxy card or voting instruction.
- **By Telephone:** Call 1-800-690-6903 and follow the instructions included on the proxy card or voting instruction. If you vote by telephone, you do not need to mail in a proxy card or voting instruction.
- **By Mail:** If you received your proxy materials by mail, complete, properly sign, date, and mail the enclosed proxy card or voting instruction.

Registered shareholders are urged to deliver proxies or voting instructions by using the internet, calling the toll-free telephone number, or by completing and mailing the proxy card or voting instruction. The internet and telephone voting procedures are designed to authenticate shareholders' identities, to allow shareholders to give their proxies or voting instructions, and to confirm that such instructions have been recorded properly. Instructions for voting over the internet or by telephone are included on the enclosed proxy card or voting instruction. If you received your proxy materials via mail, registered shareholders may send their proxies or voting instructions by completing, signing, and dating the enclosed proxy card or voting instruction and returning it as promptly as possible in the enclosed prepaid envelope. The deadline for voting via the internet or telephone is 11:59 p.m., Eastern Time, on June 9, 2021.

- During the Annual Meeting.
 - o You may vote via the internet during the virtual Annual Meeting by visiting: www.virtualshareholdermeeting.com/PGEN2021. Only shareholders of record at the close of business on the record date, April 13, 2021, are entitled to participate in and to vote at the virtual Annual Meeting. To participate in the Annual Meeting, you will need the 16-digit control number included on your Notice of Internet Availability of Proxy Materials or on your proxy card or any additional voting instructions that accompanied your proxy materials.
 - o Shareholders who hold common stock through banks, brokers, or other nominees ("street name shareholders") who wish to vote at the Annual Meeting should receive voting instructions from the institution that holds their shares. Please contact the institution that holds your shares if you have not received voting instructions. Street name shareholders may also be eligible to vote their shares electronically by following the voting instructions provided by the bank, broker, or other nominee that holds the shares, using either the toll-free telephone number or the internet address provided on the voting instruction; or by completing, dating, and signing the voting instruction and returning it promptly in the enclosed prepaid envelope.

10. Can I attend the Annual Meeting?

Yes. The Annual Meeting is open to all holders of our common stock as of the record date, April 13, 2021. However, even if you plan to attend the Annual Meeting, we encourage you to vote your shares by proxy. In light of the public health impact of COVID-19 and to support the health and well-being of our shareholders, management and Board, the Annual Meeting will be held in a virtual meeting format only. You can attend the Annual Meeting live via the internet by visiting: www.virtualshareholdermeeting.com/PGEN2021. Online check-in will begin at 8:45 a.m. Eastern Time. Please allow ample time for the online check-in process. Please note that there is no in-person location for you to attend.

To participate in the Annual Meeting, you will need the 16-digit control number included on your Notice of Internet Availability of Proxy Materials or on your proxy card or any additional voting instructions that accompanied your proxy materials.

11. How do I attend the virtual Annual Meeting? How can I ask questions during the Annual Meeting? What if I experience technical difficulties at log-in or during the Annual Meeting?

Our virtual Annual Meeting will be conducted on the internet via webcast. You will be able to participate online and submit your questions during the Annual Meeting by visiting www.virtualshareholdermeeting.com/PGEN2021. Shareholders will be able to vote their shares electronically during the Annual Meeting. To participate in the Annual Meeting, you will need the 16-digit control number on your proxy card of voting instruction form. The Annual Meeting will begin promptly at 9:00 am Eastern Time.

Shareholders may submit questions during the Annual Meeting. If you wish to submit a question, you may do so by logging into the virtual meeting platform at www.virtualshareholdermeeting.com/PGEN2021, typing your question into the “Ask a Question” field, and clicking “Submit”. Questions pertinent to the Annual Meeting will be addressed during the Annual Meeting, subject to time constraints.

If you encounter any difficulties accessing the virtual Annual Meeting during the check-in or meeting time, please call the technical support number that will be posted on the virtual Annual Meeting login page for assistance. Technical assistance will be available through the conclusion of the Annual Meeting.

12. How will my shares be voted if I sign, date, and submit my proxy or voting instruction, but do not provide complete voting instructions with respect to each proposal?

Shareholders should specify their vote for each matter on the proxy or voting instruction. The proxies solicited by this Proxy Statement vest in the proxy holders voting rights with respect to the election of directors (unless the shareholder marks the proxy to withhold that authority) and on all other matters voted upon at the Annual Meeting.

Unless otherwise directed in the enclosed proxy card, the persons named as proxies therein will vote all properly executed, returned, and not-revoked proxy cards or voting instruction cards: (i) “**FOR**” the election of the ten director nominees listed thereon; (ii) “**FOR**” the proposal to ratify the appointment by the Audit Committee of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2021; and (iii) “**FOR**” the non-binding proposal to approve the compensation of our named executive officers. As to any other business that may properly come before the Annual Meeting, the persons named in the enclosed proxy card or voting instruction will vote the shares of common stock represented by the proxy in the manner as the Board may recommend, or otherwise at the proxy holders’ discretion. The Board does not presently know of any other such business.

13. How will my shares be voted if I do not return my proxy or my voting instruction?

It will depend on how your ownership of shares of common stock is registered. If you own your shares as a record holder, which means that your shares of common stock are registered in your name, if you do not vote in advance of the Annual Meeting by submitting a proxy, your unvoted shares will not be represented at the Annual Meeting and will not count toward the quorum requirement, as explained under “How many votes must be present to hold the Annual Meeting?,” unless you attend the Annual Meeting to vote them in person.

If you are a street name shareholder and your shares are registered in the name of your bank, broker or its nominee, your shares may be voted even if you do not provide your bank, broker, or other nominee with voting instructions. Your bank, broker, or other nominee may vote your shares in its discretion on “routine” matters. However, your bank, broker, or other nominee may not vote your shares on proposals that are not considered routine. When a proposal is not a routine matter and your bank, broker, or other nominee has not received your voting instructions with respect to such proposal, your bank, broker, or other nominee cannot vote your shares on that proposal. When a bank, broker, or other nominee does not cast a vote for a routine or a non-routine matter, it is called a “broker non-vote.”

Therefore, please note that in the absence of your specific instructions as to how to vote, your bank, broker, or other nominee may not vote your shares with respect to the election of directors and the non-binding proposal to approve the compensation of the named executive officers. These matters are not considered routine matters. However, the ratification of the appointment by the Audit Committee of Deloitte & Touche LLP is a routine matter for which brokerage firms may vote on behalf of their clients if no voting instructions are provided. Therefore, if you are a street name shareholder whose shares of common stock are held with a bank, broker, or other nominee and you do not return your voting instructions, your bank, broker, or other nominee may vote your shares “for” the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm. ***Please return your proxy so your vote can be counted.***

14. How are abstentions and broker non-votes counted?

Only votes cast “for” or “against” are included in determining the votes cast with respect to any matter presented for consideration at the Annual Meeting. As described above, when brokers do not have discretion to vote or do not exercise such discretion, the inability or failure to vote is referred to as a “broker non-vote.” Proxies marked as abstaining, and any proxies returned by brokers as “non-votes” on behalf of shares held in street name because beneficial owners’ discretion has been withheld as to one or more matters to be acted upon at the Annual Meeting, will be treated as present for purposes of determining whether a quorum is present at the Annual Meeting. Broker non-votes and abstentions will not be included in the vote total for the proposal to elect the nominees for director and will not affect the outcome of the vote for the proposal. In addition, under Virginia corporate law, abstentions are not counted as votes cast on a proposal. Therefore, abstentions and broker non-votes will not count either in favor of or against (i) the election of directors, (ii) the ratification of the appointment of Deloitte & Touche LLP, or (iii) the non-binding proposal to approve the compensation of the named executive officers.

15. What if I change my mind after I vote?

Whether you vote by internet, telephone, or by mail, you may later revoke your proxy and change your vote before 11:59 p.m. Eastern Time on Wednesday, June 9, 2021 by:

- entering new instructions on either the telephone or internet voting system before 11:59 p.m. Eastern Time on Wednesday, June 9, 2021;
- delivering a properly signed proxy with a later date than the previously submitted proxy card before the polls close at the Annual Meeting;
- delivering a written revocation to our Corporate Secretary at 20374 Seneca Meadows Parkway, Germantown, Maryland 20876; or
- voting virtually at the Annual Meeting.

Attendance at the virtual Annual Meeting alone without voting will not revoke a previously granted proxy. If you are a street name shareholder whose stock is held with a bank, broker, or other nominee, you must follow the instructions found on the voting instruction card provided by the bank, broker, or other nominee, or contact your bank, broker, or other nominee to change or revoke your previously given proxy.

16. Who pays the cost of proxy solicitation?

We will pay all expenses of soliciting proxies, including clerical work, printing, and postage. Our officers and other employees may personally solicit proxies or solicit proxies by internet, telephone, mail, or facsimile, but we will not provide any compensation for such solicitations. We will also reimburse banks, brokers, and other persons holding shares in their names or in the names of nominees for expenses incurred sending material to beneficial owners and obtaining proxies from beneficial owners.

17. Could other matters be decided in the Annual Meeting?

The Board does not know of any other business that may be brought before the Annual Meeting. However, if any other matters should properly come before the Annual Meeting or at any adjournment or postponement thereof, it is the intention of the persons named in the accompanying proxy to vote on such matters as they, in their discretion, may determine.

18. How do I make a shareholder proposal for the 2022 Annual Meeting of Shareholders?

Pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), we must receive any proposals from shareholders intended for inclusion in the proxy statement for our 2022 Annual Meeting of Shareholders no later than 120 days before the anniversary date of the distribution of this Proxy Statement (i.e., December 29, 2021). Holders of common stock who wish to have proposals submitted for inclusion in the proxy statement for our 2022 Annual Meeting of Shareholders should consult the applicable rules and regulations of the SEC with respect to such proposals, including certain information required to be in the proposal, the permissible number and length of proposals, and other matters governed by such rules and regulations, and should also consult our Amended and Restated Bylaws (the “Bylaws”).

The Bylaws also set forth the procedures a shareholder must follow to nominate directors or to bring other business before shareholder meetings. For a shareholder to nominate a candidate for director or bring other matters from the floor at the 2022 Annual Meeting of Shareholders, we must receive notice of the nomination no earlier than the close of business on February 10, 2022 and no later than the close of business on March 12, 2022, provided, however, that if our 2022 Annual Meeting of Shareholders is scheduled to be held before May 11, 2022 or after August 19, 2022, notice shall be delivered not earlier than the close of business on the 120th day prior to such meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day we announce the new meeting date. For the nomination of a candidate for director, the notice must describe various matters as set forth in our Bylaws, including regarding the nominee, including name, address, occupation, and shares held. For bringing other matters from the floor at the 2022 Annual Meeting of Shareholders, the notice must include a description of the proposed business, the reasons therefor, and other matters specified in our Bylaws. In each case, the notice must be timely given in writing to our Corporate Secretary, whose address is 20374 Seneca Meadows Parkway, Germantown, Maryland 20876.

General

Our business and affairs are managed under the direction of the Board in accordance with the Virginia Stock Corporation Act, our Amended and Restated Articles of Incorporation, and our Bylaws. Our Bylaws provide that the number of directors shall be fixed from time to time by the Board, but shall not be more than ten. The Board is currently comprised of the following ten individuals: Randal Kirk, the Executive Chairman of the Board, Cesar Alvarez, Steven Frank, Vinita Gupta, Fred Hassan, Jeffrey Kindler, Dean Mitchell, Dr. Helen Sabzevari, our Chief Executive Officer (“CEO”), Robert Shapiro, and James Turley. Each of our current directors is being nominated for election to the Board at the Annual Meeting. For more information regarding the nominees for election to the Board, see “Nominees for Election as Directors.”

Corporate Governance Guidelines

The Board has adopted corporate governance guidelines (the “Corporate Governance Guidelines”) that set forth the practices of the Board with respect to the qualification, selection and election of directors, director orientation and continuing education, director responsibilities, Board composition and performance, director access to management and independent advisors, director compensation guidelines, management evaluation and succession, policies regarding the Lead Independent Director, meetings of the non-management directors, the policy on communicating with the non-management directors, and various other issues. A copy of our Corporate Governance Guidelines is available on our website at <http://investors.precigen.com> under the caption “Governance.” Neither the Corporate Governance Guidelines, our website nor any documents or information contained therein are incorporated by reference to this proxy statement.

Board Standards of Independence

The Board has set forth our independence standards in our Corporate Governance Guidelines. These standards provide that a majority of the Board must be independent under the independence standards established by the Corporate Governance Guidelines and The Nasdaq Stock Market (“Nasdaq”) as in effect from time to time. For a Board member or candidate for election to the Board to qualify as independent, the Board must determine that the person and his or her family members do not have a material relationship with us (either directly or as a partner, shareholder, or officer of an organization that has a relationship with us) or any of our affiliates. Under the categorical standards adopted by the Board, a member of the Board is not independent if:

- The director is, or has been within the last three years, our employee, or whose family member is, or has been within the last three years, an executive officer of the Company;
- The director has received, or has a family member serving as an executive officer who has received, during any 12-month period within the three years preceding the determination of independence, more than \$120,000 in direct compensation from us, other than director and committee fees, compensation made to a family member who is an employee (other than an executive officer) of the Company, and benefits under a tax-qualified retirement plan or non-discretionary compensation;
- (i) The director is a current partner of a firm that is our internal or external auditor; (ii) the director has a family member who is a current partner of such a firm; or (iii) the director, or a family member, was within the last three years a partner or employee of such a firm and personally worked on our audit within that time;
- The director or a family member is, or has been within the last three years, employed as an executive officer of another company where any of our present executive officers at the same time serves or served on that company’s compensation committee; or
- The director is or a family member is, a partner in (excluding limited partners), or a controlling shareholder or executive officer of, any organization to which we made, or from which we received, payments for property or services in an amount which, in any of the last three fiscal years, exceeds the greater of \$200,000, or 5%, of such other company’s consolidated gross revenues.

With the exception of Mr. Kirk, our Executive Chairman of the Board, and Dr. Sabzevari, our CEO, the Board has affirmatively determined that each of Cesar Alvarez, Steven Frank, Vinita Gupta, Fred Hassan, Jeffrey Kindler, Dean Mitchell, Robert Shapiro, and James Turley is independent in accordance with the above standards and applicable Nasdaq guidelines.

In determining that Mr. Alvarez is independent, the Board considered that Mr. Alvarez is the Senior Chairman of Greenberg Traurig, LLP (“Greenberg Traurig”). As discussed under “Certain Relationships and Related Party Transactions,” Greenberg Traurig provides legal services to us from time to time for which it has received, and may continue to receive, customary fees. During 2020, we paid Greenberg Traurig \$1,350,502 for legal services, constituting less than 5% of Greenberg Traurig’s annual gross revenues. As the Senior Chairman, Mr. Alvarez does not participate in the provision of such services and does not materially benefit from the engagement, and his compensation from Greenberg Traurig is not based on such services provided to us. The Board has determined that this relationship is not material and that it does not impair Mr. Alvarez’s independence.

In determining that Mr. Turley is independent, the Board considered that Mr. Turley is the former Chairman and Chief Executive Officer of Ernst & Young LLP. From time to time, Ernst & Young provides valuation and technical accounting services to us, for which it receives customary fees. As Mr. Turley retired from Ernst & Young over seven years ago in June 2013, Mr. Turley does not participate in such services and does not materially benefit from the engagement. The Board has determined that this relationship is not material and that it does not impair Mr. Turley’s independence.

Board Meetings and Attendance at Annual Meeting of Shareholders

There were eight meetings of the Board held either in person or by teleconference in 2020. Each director attended at least 75% of the combined meetings of the Board and the committees on which he or she served during the year scheduled during the time each member was a director, including all regularly scheduled meetings. Our independent directors meet in executive session without management at least quarterly.

Our Corporate Governance Guidelines provide that all directors are strongly encouraged to attend all annual and special meetings of our shareholders. All members of the Board at the time of the 2020 Annual Meeting attended the 2020 Annual Meeting.

Board Leadership Structure

As specified in the Corporate Governance Guidelines, the Board does not have a policy on whether the role of the CEO and Executive Chairman should be separate or, if it is to be separate, whether the Chairman should be selected from the non-employee directors or be an employee. Currently, the roles are separate. Mr. Kirk currently serves as Executive Chairman and Dr. Sabzevari serves as CEO. Prior to Dr. Sabzevari assuming the role of CEO in January 2020 and Mr. Kirk becoming Executive Chairman, Mr. Kirk had served as Chairman of the Board since February 2008 and CEO since April 2009. We believe that separating the Executive Chairman and CEO roles at this time allows us to efficiently develop and implement corporate strategy consistent with the Board’s oversight role while also facilitating strong day-to-day executive leadership.

The Board believes that Mr. Kirk is well situated to serve as Executive Chairman because his unique and extensive experience and deep understanding of our business as well as his broad business experience as CEO of, and significant investor in, multiple successful biotech companies enable him to deliver strategic insight on key issues, to serve as a valuable bridge between the Board and management, and to provide valuable leadership experience. Mr. Kirk’s Executive Chairman responsibilities include the following:

- advising and supporting the CEO on governance matters;
- serving as a liaison between the Board and senior management;
- acting as a source of institutional knowledge;
- together with the Lead Independent Director, and with input from the non-management and independent Board members, preparing the Board’s agenda;
- chairing and guiding discussion at Board meetings; and

- performing such other duties and responsibilities as may be delegated to the Executive Chairman by the Board from time to time.

The Board established the position of Lead Independent Director in the Corporate Governance Guidelines to serve as a principal liaison between the independent directors and the Executive Chairman and the CEO as well as to coordinate the activities of the other independent directors. Mr. Shapiro currently serves as our Lead Independent Director. In his role as Lead Independent Director, Mr. Shapiro is in frequent contact with the Executive Chairman and the CEO and is regularly consulted on material matters. We currently maintain a significant majority of independent directors (Mr. Kirk and Dr. Sabzevari are the only non-independent directors). The Lead Independent Director is elected by the independent directors and ensures that the Board operates independently of management, and that directors and shareholders have an independent leadership contact.

The responsibilities of the Lead Independent Director of the Board include the following:

- presiding over meetings of the non-management and independent Board members and, as appropriate, provide prompt feedback to the CEO and Executive Chairman;
- together with the Executive Chairman, and with input from the non-management and independent Board members, preparing the Board's agenda;
- serving as a point of contact between non-management and independent Board members and the CEO on board-wide matters;
- calling executive sessions of the Board or of the non-management and independent Board members;
- serving as a "sounding board" and mentor to the CEO;
- taking the lead in assuring that the Board carries out its responsibilities in circumstances where the Executive Chairman is incapacitated or otherwise unable to act;
- consulting with the Chairman of the Compensation and Human Capital Management Committee (the "Compensation Committee") to provide performance feedback and compensation information to the CEO and the Executive Chairman; and
- performing such other duties and responsibilities as may be delegated to the Lead Independent Director by the Board from time to time.

As part of the Board's annual assessment process, the Board evaluates the Board's leadership structure to ensure that it remains appropriate. The Board recognizes that there may be circumstances in the future that would lead it to combine the roles of CEO and Chairman of the Board or to have an independent Chairman, but believes that the absence of a policy requiring either the separation or combination of these roles provides the Board with the flexibility to determine the best leadership structure.

The Board's Role in Risk Oversight

The Board is responsible for our risk oversight, and each committee of the Board is responsible for risk oversight within such committee's area of responsibility and regularly reports to the Board regarding the same. Management is responsible for our risk management, including providing working to ensure our policies are carried out and processes are executed in accordance with our performance goals and risk tolerance. On a regular basis, our management team identifies, discusses, and assesses financial risk from current macroeconomic, industry, and company perspectives. Our management team also provides regular reports to the Board and its committees on areas of our material risk, including operational, financial, legal, and regulatory as well as strategic and reputational risks.

The Audit Committee is responsible for discussing with management our major financial risk exposures and the steps and processes management has taken to monitor and control such exposures, including our risk assessment and risk management policies. As part of its regular reporting process, management reports and reviews with the Audit Committee our material risks, including, but not limited to, proposed risk factors and other public disclosures, mitigation strategies, and our internal controls over financial reporting. The Audit Committee also engages in regular periodic discussions with the Chief Financial Officer and other members of management regarding risks, as appropriate.

In carrying out its responsibilities, the Compensation Committee considers the impact of executive and employee compensation on our risk profile, as well as overseeing the development, implementation and effectiveness of our human capital management policies, programs and initiatives, including with respect to recruitment, retention and development of our employees.

The Nominating and Governance Committee's responsibilities include the consideration of succession planning and corporate governance matters and risks. The Nominating and Governance Committee also oversees the Company's environmental, social and governance, or ESG matters. The Nominating and Governance Committee's duties include considering with management public policy issues that may affect the Company, including pertinent ESG matters.

Each committee regularly reports to the Board. Moreover, the Board reviews and oversees our various financial policies, financing programs, capital and operating plans, benefit plan management, ESG matters and certain risk management policies. We believe the current leadership structure of the Board supports the risk oversight functions described above by providing independent leadership at each of the committee levels, with ultimate oversight by the full Board, as led by the Executive Chairman and the Lead Independent Director.

Board Committees

The Board maintains three standing committees: the Audit Committee; the Compensation Committee; and the Nominating and Governance Committee. Each of these committees has a separate chairperson and is composed entirely of directors that meet the applicable independence requirements of the SEC and Nasdaq. Each committee operates under a written charter that is reviewed periodically and, has been approved, by the Board. A current copy of each committee's charter is available on our website at <http://investors.precigen.com> under the caption "Governance." In addition, from time to time, the Board may create ad hoc committees for specific purposes.

Audit Committee

The members of the Audit Committee are Messrs. Kindler, Mitchell, and Shapiro. Mr. Kindler is the chair of the Audit Committee. During 2020, the Audit Committee met 11 times. The Board has determined that each member of the Audit Committee is "independent" within the meaning of the enhanced independence standards for audit committee members in the Exchange Act, and the rules thereunder, as incorporated into the listing standards of Nasdaq, and the independence standards of our Corporate Governance Guidelines as discussed above under "CORPORATE GOVERNANCE — Board Standards of Independence." The Board has further determined that Mr. Kindler qualifies as an "audit committee financial expert" within the meaning of SEC regulations and is "financially sophisticated" within the meaning of the Nasdaq rules. The Audit Committee assists the Board in its oversight of our accounting and financial reporting process and the audits of our consolidated financial statements. The Audit Committee's responsibilities include, among other things, overseeing:

- our accounting and financial reporting processes;
- the integrity of our consolidated financial statements;
- our compliance with laws and regulations;
- our independent registered public accounting firm's qualifications and independence; and
- the performance of our independent registered public accounting firm.

The Audit Committee appoints, compensates, oversees, and evaluates the performance of our independent registered public accounting firm for each fiscal year and approves the audit and non-audit fees we pay to such firm. The Audit Committee also reviews the scope and the results of the work of the independent registered public accounting firm and reviews the adequacy of internal control over financial reporting. The functions and responsibilities of the Audit Committee are further described in the "Audit Committee Report."

Compensation Committee

The members of the Compensation Committee are Messrs. Hassan, Kindler, and Turley. Mr. Turley is the chair of the Compensation Committee. During 2020, the Compensation Committee met seven times. The Compensation Committee's responsibilities include, among others:

- developing and maintaining an executive compensation policy and monitoring the results of that policy;
- considering the impact of our compensation policy and practices on our risk profile;
- recommending to the Board for approval compensation and benefit plans;
- reviewing and approving annually corporate and personal goals and objectives to serve as the basis for the CEO's compensation, evaluating the CEO's performance in light of those goals and objectives and determining the CEO's compensation based on that evaluation;
- reviewing and recommending annual compensation for the Executive Chairman;
- determining and approving annual compensation for other executive officers;
- approving grants of equity-based incentives to the extent provided under the our equity compensation plans, subject to the Committee's authority to delegate the power to grant awards to employees or non-executive service providers who are not directors or executive officers;
- reviewing and making recommendations to the Board regarding the compensation of non-employee directors;
- reviewing and discussing with management the "Compensation Discussion and Analysis" to the extent required by SEC rules;
- preparing the Compensation Committee report when required by SEC rules;
- reviewing any executive employment-related agreements, proposed severance or retirement arrangements, or change and control or similar agreements, and any amendments or waivers to any such agreements;
- overseeing the development, implementation and effectiveness of the Company's human capital management policies, programs and initiatives, including with respect to recruiting, retaining and developing our employees; and
- reviewing and recommending to the Board for approval our approach with respect to the advisory vote on executive compensation, or say-on-pay, and the frequency of the say-on-pay advisory vote.

The Compensation Committee charter specifies that each member must be a "non-employee director" for purposes of Rule 16b-3 of the Exchange Act. In addition, the current members of this Committee have been members of other public company boards of directors, are current or former executive officers of public companies, or have or have had comparable positions. The Board has determined that the members of this Committee are "non-employee directors" (within the meaning of Rule 16b-3 of the Exchange Act) and "independent directors" (as defined under the applicable Nasdaq listing standards and our Corporate Governance Guidelines as discussed above under "Corporate Governance — Board Standards of Independence").

The processes and procedures followed by the Compensation Committee in considering and determining executive compensation, including the role of the outside compensation consultant, are described below under "Compensation Discussion and Analysis — The Compensation Review Process."

Nominating and Governance Committee

The members of the Nominating and Governance Committee are Mr. Alvarez, Ms. Gupta, and Mr. Shapiro. Mr. Alvarez is the chair of the Nominating and Governance Committee. During 2020, the Nominating and Governance Committee met four times. The Nominating and Governance Committee's responsibilities include, among others:

- considering and reviewing periodically the desired composition of the Board, including such factors as diversity of backgrounds and expertise and tenure, and ensuring that the Board is composed so as to satisfy SEC listing requirements and Nasdaq rules, including the independence of directors and the financial and accounting experience of directors;
- establishing and reviewing qualifications and standards for individual directors in the context of the current composition of the Board, the Company’s operating requirements, and the long-term interests of our shareholders, and periodically reviewing these qualifications and standards;
- identifying, nominating, and evaluating candidates for election to the Board;
- making recommendations to the Board regarding the size of the Board, the tenure and classifications of directors, and the composition of the Board’s committees;
- reviewing and evaluating our various governance policies and guidelines, including pertinent ESG matters;
- considering CEO succession planning;
- reviewing committee structure and effectiveness; and
- considering other corporate governance and related matters as requested by the Board.

The Board has determined that all members of the Nominating and Governance Committee are “independent” within the meaning of the listing standards of Nasdaq and the independence standards set by the Board as discussed above in “Corporate Governance — Board Standards of Independence.”

Director Candidate Recommendations and Nominations by Shareholders

The Nominating and Governance Committee’s charter provides that the Committee will consider director candidate recommendations by shareholders. Shareholder recommendations for candidates to be nominees will be evaluated under the same standards as potential nominees recommended by management or the non-management members of the Board. Shareholders should submit any such director recommendations to the Nominating and Governance Committee through the method described in our Bylaws. The Nominating and Governance Committee did not receive any recommendations from any shareholders in connection with the 2021 Annual Meeting.

Nominating and Governance Committee Process for Identifying and Evaluating Director Candidates

The Nominating and Governance Committee identifies and evaluates all director candidates in accordance with the director qualification standards described in the Corporate Governance Guidelines. The Committee evaluates a candidate’s qualifications to serve as a member of the Board based on the background, diversity, and expertise in relevant industries of individual Board members as well as the background and expertise of the Board as a whole. Nominees will be required to bring the skills, talents, knowledge, and expertise to ensure that the composition, structure, and operation of the Board serve the best interests of our shareholders. In addition, the Committee will evaluate a candidate’s independence and his or her background and expertise in the context of the Board’s needs.

Our Corporate Governance Guidelines and Nominating and Governance Committee charter provides that we will consider diversity, including diversity of backgrounds, in considering the composition of and evaluating nominees to the Board. Both our Corporate Governance Guidelines and the Nominating and Governance Committee charter specifically provide that diversity includes diversity of viewpoints, experience, race, ethnicity, gender and age.

Racial or ethnic minorities and women currently comprise 40% of our directors nominees, based on director self-identification. Specifically, women comprise 20% of our director nominees and racial and ethnic minorities comprise 40% of our director nominees. However, we have no formal requirement regarding Board diversity. Our priority in selection of Board members is identification of members who will further the interests of our shareholders through their established records of professional accomplishment, the ability to contribute positively to the collaborative culture among Board members, knowledge of our business, and understanding of the competitive landscape of the industries in which we operate. We will consider, in identifying first-time candidates, assessing nominees for director (including incumbent directors), or evaluating individuals recommended by shareholders, the

current composition of the Board in light of the diverse communities and geographies we serve and the interplay of the candidate's or nominee's diverse individual experience, education, skills, background, and other qualities and attributes with those of the other Board members. The Nominating and Governance Committee and Board monitor the Board's effectiveness through the Board's self-evaluation process. As described under "Nominees for Election as Directors," the Nominating and Governance Committee and the Board believe that the current composition of the Board reflects a group of highly talented individuals with diverse backgrounds, skills, professional, and industry experience, and other personal qualities and attributes best suited to perform oversight responsibilities for us and our shareholders.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics (the "Code") that applies to our directors, officers, and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, and persons performing similar functions. The Code covers a broad range of professional conduct, including employment policies, conflicts of interest, intellectual property, and the protection of confidential information, as well as adherence to all laws and regulations applicable to the conduct of our business.

A copy of the Code is available on our website at <http://investors.precigen.com> under the caption "Governance." If we make any substantive amendments to, or grant any waivers from, the Code for any officer or director, we intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K by disclosing the nature of such amendment or waiver on our website or in a Current Report on Form 8-K.

Political Contributions

In general, it is not our practice to make financial or in-kind political contributions with corporate assets, even when permitted by applicable law.

Communications with the Board

We have established a policy pursuant to which shareholders wishing to communicate with the Board as a group, the Lead Independent Director or individual directors may do so by writing to the following address: Precigen, Inc., 20374 Seneca Meadows Parkway, Germantown, Maryland 20876; Attn: Corporate Secretary.

The communication must prominently display the legend "BOARD COMMUNICATION" in order to indicate to the Corporate Secretary that it is a communication for the Board. Upon receiving such a communication, the Corporate Secretary will promptly forward the communication to the relevant individual or group to which it is addressed. The Board has requested that certain items that are unrelated to the Board's duties and responsibilities be excluded, such as spam, junk mail and mass mailings, resumes, and other forms of job inquiries, surveys, and business solicitations or advertisements.

The Corporate Secretary will not forward any communication determined in his or her good faith belief to be frivolous, unduly hostile, threatening, illegal, or similarly unsuitable. Each communication subject to this policy that was not forwarded because it was determined by the Corporate Secretary to be frivolous is retained for a reasonable period of time in our files and made available at the request of any member of the Board to whom such communication was addressed.

BENEFICIAL OWNERSHIP OF COMMON STOCK

The following table sets forth information regarding beneficial ownership of our share capital as of March 31, 2021 by (i) each of our directors, (ii) each of our named executive officers, (iii) all of our directors and executive officers as a group, and (iv) each person, or group of affiliated persons, known by us to beneficially own more than 5% of our shares of common stock.

The percentage ownership information is based on an aggregate 206,414,135 shares of common stock outstanding as of March 31, 2021.

Except as otherwise noted below, the address for each person or entity listed in the table is c/o Precigen, Inc., 20374 Seneca Meadows Parkway, Germantown, Maryland 20876.

Name of Beneficial Owner	Outstanding Shares Beneficially Owned (1)	Right to Acquire Beneficial Ownership (2)	Total Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Directors/director nominees				
RJ Kirk and Affiliates (3)	81,760,477	118,870	81,879,347	39.6%
Cesar L. Alvarez	257,396	251,206	508,602	*
Steven Frank	337,205	251,206	588,411	*
Vinita Gupta (4)	150,820	230,127	380,947	*
Fred Hassan	154,687	245,347	400,034	*
Jeffrey B. Kindler	214,209	266,053	480,262	*
Dean J. Mitchell	177,926	251,206	429,132	*
Robert B. Shapiro (5)	276,877	266,053	542,930	*
James Turley	159,904	277,933	437,837	*
Named executive officers				
Helen Sabzevari	655,214	1,709,776	2,364,990	1.1%
Rick Sterling	340,020	429,472	769,492	*
Donald P. Lehr	274,652	506,466	781,118	*
Jeffrey Perez	279,821	450,430	730,251	*
Current executive officers and directors as a group (6)	85,039,208	5,254,145	90,293,353	42.7%
Greater than 5% shareholders				
Ares Trading SA (7)	27,398,519	—	—	13.3%

* Represents beneficial ownership of less than 1% of our outstanding shares of common stock.

- (1) Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes sole or shared voting or investment power with respect to shares of our common stock. The information set forth in the table above is not necessarily indicative of beneficial ownership for any other purpose, and the inclusion of any shares deemed beneficially owned in this table does not constitute an admission of beneficial ownership of those shares. Except as otherwise noted, to our knowledge, the persons and entities named in the table above have sole voting and investment power with respect to all of the shares of common stock beneficially owned by them, subject to community property laws, where applicable.
- (2) Consists of shares of common stock subject to stock options exercisable as of, or within 60 days of, March 31, 2021 and restricted stock units vesting within 60 days of March 31, 2021. Shares of common stock subject to stock options that are exercisable as of or within 60 days of, March 31, 2021 and restricted stock units vesting within 60 days of March 31, 2021 are deemed to be outstanding and beneficially owned by the person holding the option for the purpose of calculating the percentage ownership of that person, but are not deemed outstanding for the purpose of calculating the percentage ownership of any other person.
- (3) Includes shares held by the following entities over which Mr. Kirk (or an entity over which he exercises exclusive control) exercises exclusive control: 213,805 shares held by ADC 2010, LLC, 474,194 shares held by

JPK 2008 LLC, 3,541,315 shares held by JPK 2009 LLC, 1,589,531 shares held by JPK 2012, LLC, 14,140,139 shares held by Kapital Joe, LLC, 444,007 shares held by Kellie L. Banks (2009) Long Term Trust, 1,403 shares held by Lotus Capital (2000) Co., Inc., 473,231 shares held by MGK 2008 LLC, 3,782,354 shares held by MGK 2009 LLC, 1,572,208 shares held by MGK 2011, LLC, 18,329,996 shares held by R.J. Kirk Declaration of Trust, 16,406,828 shares held by Sunset 2020 LLC, 19,711 shares held by Third Security Incentive 2006 LLC, 832,500 shares held by Third Security Incentive 2007, 691,929 shares held by Third Security Incentive 2009, 1,260,538 shares held by Third Security Incentive 2010 LLC, 118,266 shares held by Third Security Senior Staff 2006 LLC, 4,995,000 shares held by Third Security Senior Staff 2007, 2,976,063 shares held by Third Security Senior Staff 2008 LLC, 975,084 shares held by Third Security Senior Staff 2015 LLC, 58,800 shares held by Third Security Senior Staff LLC, 311,287 shares held by Third Security Staff 2001 LLC, 59,133 shares held by Third Security Staff 2006 LLC, 2,497,500 shares held by Third Security Staff 2007, 1,383,858 shares held by Third Security Staff 2009, 1,592,206 shares held by Third Security Staff 2010 LLC, 975,084 shares held by Third Security Staff 2015 LLC, 561,872 shares held by ZSK 2008 LLC, and 338,154 shares held by ZSK 2009 LLC. Also includes 1,144,481 shares held by Alana D. Czipinski, Mr. Kirk's spouse.

- (4) Includes 3,000 shares held in the Sharma-Gupta Marital Property Trust, an affiliate of Vinita Gupta.
- (5) Includes 82,966 shares held in the Robert B. Shapiro Revocable Trust, an affiliate of Robert Shapiro.
- (6) Consists of 13 persons as of March 31, 2021.
- (7) Information is based on the Schedule 13G that was filed with the SEC on January 8, 2021 by Ares Trading SA ("Ares Trading") and certain other information known to us. Ares Trading is a dominantly controlled subsidiary of Merck Serono S.A., Coinsins, Switzerland, an affiliate of Merck KGaA, Darmstadt, Germany. Merck Serono S.A., Coinsins, Switzerland is a wholly owned indirect subsidiary of Merck KGaA, Darmstadt, Germany. Merck Serono S.A., Coinsins, Switzerland and Merck KGaA, Darmstadt, Germany may be deemed to possess sole voting and dispositive power with respect to the securities held of record by Ares Trading. The address of Ares Trading is Zone Industrielle de l'Outriettaz, 1170 Aubonne, Switzerland.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires our executive officers, directors, and persons who own more than 10% of our equity securities, to file reports of ownership and changes in ownership with the SEC and provide us with copies of such reports. Based solely on a review of the copies of these reports furnished to us, we believe that all such filing requirements applicable to such officers and directors and greater than 10% shareholders were complied with during 2020, with the exception of one Form 4 that was filed late for Mr. Frank in July 2020 relating to one transaction in fiscal year 2020.

**PROPOSAL 1
ELECTION OF DIRECTORS**

Background

Upon the recommendation of the Nominating and Governance Committee, the Board has unanimously nominated our ten incumbent directors, all of whom were elected by our shareholders at our 2020 Annual Meeting of Shareholders for election to the Board at the Annual Meeting and to hold office until their successors have been elected and qualified or until their earlier resignation or removal. Each nominee has consented to being named as such and to serve as a director if elected.

Our Bylaws provide that, in uncontested director elections (i.e., an election where the number of nominees is not greater than the number of directors to be elected), a nominee for director will be elected to the Board if the votes cast for such nominee's election exceed the votes cast against such nominee's election. However, directors will be elected by a plurality of the votes cast at any meeting of the shareholders for which (i) the Corporate Secretary receives a notice that a shareholder has nominated a person for election to the Board in compliance with the advance notice requirements for shareholder nominees for director set forth in the Bylaws and (ii) such nomination has not been withdrawn by such shareholder on or prior to the 10th day preceding the date we first mail the notice of meeting for such meeting to the shareholders (i.e., if there is a contested director election). If directors are to be elected by a plurality of the votes cast, the shareholders may withhold votes, but will not be permitted to vote against a nominee.

Our Corporate Governance Guidelines provide that any nominee for director in an uncontested election who receives a greater number of shareholder votes cast "against" his or her election than votes "for" his or her election must, promptly following certification of the shareholder vote, tender his or her resignation to the Board for consideration. The Nominating and Governance Committee will then evaluate the best interests of the Company and will recommend to the Board whether to accept or reject the tendered resignation. Following the Board's receipt of this recommendation and determination as to whether to accept the resignation, we will disclose the Board's decision and an explanation of how the decision was reached.

There were no nominee recommendations from shareholders or from any group of shareholders submitted in accordance with our Bylaws. Proxies solicited by the Board will be voted in favor of the nominees listed below unless otherwise specified in the proxy. We know of no reason why the nominees would not be available for election or, if elected, would be unable to serve. While we do not anticipate that any of the nominees will be unable to serve, if any should be unable to serve, the proxy holders reserve the right to substitute another person designated by the Board.

Vote Required and Board Recommendation

Each director nominee must receive the affirmative vote of a majority of the votes cast in order to be elected. As this proposal is not considered a "routine item," your bank, broker, or other nominee cannot vote your shares without receiving your voting instructions. Abstentions and broker non-votes will not count "for" or "against" the election of any nominee.

THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" ALL OF THE PROPOSED DIRECTOR NOMINEES.

Nominees for Election as Directors

Set forth below is information for each nominee concerning the individual's age, principal occupation, employment and directorships during the past five years, positions with the Company, the year in which he or she first joined the Board, and his or her term of office as a director. Also set forth below is a brief discussion of the specific experience, qualifications, attributes, or skills that led to the Board's conclusion that, in light of our business and structure, each nominee should serve as a director.

Name, Tenure, and Age**Business Experience During Past Five Years and Other Affiliations****Randal Kirk**

Executive Chairman of the Board
Director since 2008
Age 67

Mr. Kirk has served as Executive Chairman of the Board since January 2020 and previously served as Chairman of the Board from February 2008 until December 31, 2019 and as our CEO from April 2009 until December 31, 2019. Mr. Kirk provides a wealth of strategic, operational, and management experience. Mr. Kirk currently serves as the Senior Managing Director and CEO of Third Security, LLC, an investment management firm founded by Mr. Kirk in March 1999. Additionally, Mr. Kirk founded and became Chairman of the Board of New River Pharmaceuticals Inc. (a biopharmaceutical company previously traded on Nasdaq prior to its acquisition by Shire plc in 2007) in 1996, and was President and CEO between October 2001 and April 2007.

Since May 2015, Mr. Kirk has served as a member of the board of directors of the Edward Via College of Osteopathic Medicine. Previously, Mr. Kirk served as a member of the board of directors of Scios, Inc. (previously traded on Nasdaq prior to its acquisition by Johnson & Johnson) between February 2000 and May 2002, as a member of the board of directors of Halozyme Therapeutics, Inc. (Nasdaq: HALO), a clinical-stage biotechnology company, from May 2007 to May 2018, as a member of the board of directors of ZIOPHARM Oncology, Inc. (Nasdaq: ZIOP), a biotechnology company, from January 2011 to October 2018, and as a member of the board of directors of Clinical Data, Inc. (previously traded on Nasdaq prior to its acquisition by Forest Laboratories, Inc. in April 2011) from September 2002 to April 2011, and was Chairman of the board of directors from December 2004 to April 2011.

Mr. Kirk served on the board of visitors of Radford University from July 2003 to June 2009, was Rector of the board of directors from September 2006 to September 2008 and served on the board of directors of the Radford University Foundation, Inc. from September 1998 to May 2011. He served on the board of visitors of the University of Virginia and Affiliated Schools from July 2009 to October 2012, on the Virginia Advisory Council on Revenue Estimates from July 2006 to October 2012 and on the Governor's Economic Development and Jobs Creation Commission from April 2010 to October 2012. Mr. Kirk received a B.A. in Business from Radford University and a J.D. from the University of Virginia.

We believe that Mr. Kirk's business experience, including his extensive business experience as CEO of multiple companies, his experience as an investor, his service on committees of academic institutions and other public company boards, combined with his business acumen and judgment, provides the Board with valuable strategic and operational expertise and leadership skills.

Cesar Alvarez

Director since 2008
Age 73

Mr. Alvarez has served as a Board member since 2008. Mr. Alvarez is the Senior Chairman of the international law firm of Greenberg Traurig, LLP. He previously served as the law firm's Executive Chairman, and as its Chief Executive Officer from 1997 to 2012. During his tenure as Chief Executive Officer and Executive Chairman, Mr. Alvarez led the firm to become one of the top ten law firms in the United States by leading its growth from 325 lawyers in eight offices to approximately 1,850 attorneys and government professionals in more than 36 locations in the United States, Europe, Asia, and Latin America. Mr. Alvarez also serves as Vice-Chairman of the board of directors of Watsco, Inc. (NYSE: WSO), a distributor of air conditioning, heating and

refrigeration equipment and related parts and supplies; and The St. Joe Company (NYSE: JOE), a real estate development company. Mr. Alvarez served on the board of directors of Fairholme Funds, Inc., a family of publicly traded focused investment funds from May 2008 to February 2020 and Sears Holding Corporation, a retail company, from January 2013 to May 2017. Mr. Alvarez served on the board of directors of Mednax, Inc. (NYSE: MD), a provider of physician services, including newborn, maternal fetal, pediatric subspecialties, and anesthesia care from March 1997 to July 2020. Mr. Alvarez holds a Bachelor of Science, a Master of Business Administration, and a Juris Doctor from the University of Florida.

We believe Mr. Alvarez's qualifications to serve on the Board include his experience as Chief Executive Officer, Executive Chairman, and Senior Chairman of one of the nation's largest law firms with approximately \$1.6 billion in revenues with 2,200 law professionals providing services in 41 locations across the country and abroad, as well as his many years of corporate experience, both advising clients in the fields of corporate and securities and serving on the boards of directors of publicly traded and private companies.

Steven Frank
Director since 2008
Age 61

Mr. Frank has served as a Board member since February 2008. Mr. Frank joined J.P. Morgan Securities LLC, an investment bank, in June 2008 and currently serves as Chairman of Global Healthcare Investment Banking. Mr. Frank had previously been the head of Bear Stearns' Worldwide Health Care Investment Banking group in New York for 16 years and has provided general investment banking services to all types of healthcare companies. Specifically, Mr. Frank has led or played major roles in hundreds of mergers and acquisitions and financing transactions across the spectrum of deal structures. He has specialized in transactions involving pharmaceutical, medical device, and biotechnology companies. Prior to joining Bear Stearns in 1993, Mr. Frank served for over ten years as an institutional investor, primarily at State Farm Insurance Company, where he focused on a multibillion-dollar life-sciences portfolio. Mr. Frank holds a B.S. from Illinois State University and an M.B.A. from the University of Chicago.

We believe Mr. Frank's extensive knowledge of our industry and of finance and capital structure strengthen the Board's collective qualifications, skills, and experience.

Vinita Gupta
Director since 2017
Age 53

Ms. Gupta has served as a Board member since April 2017. Since September 2012, Ms. Gupta has served as the Chief Executive Officer of Lupin Limited ("Lupin"). Lupin, headquartered in Mumbai, India, is an innovation led global pharmaceutical company developing and delivering a wide range of branded and generic formulations, biotechnology products, and APIs. Ms. Gupta has served as a director of Lupin since 2001 and serves on its Risk Management Committee. In addition, Ms. Gupta has served as the Chief Executive Officer and chairperson of Lupin Pharmaceuticals, Inc., the U.S. wholly owned subsidiary of Lupin, since 2003. Ms. Gupta served as director on the board of Lupin's Japanese subsidiary Kyowa Pharmaceuticals from 2007 until the sale of that business in 2019. Ms. Gupta has held various positions at Lupin since joining the company in 1993.

Ms. Gupta was named 2015 Ernst & Young Entrepreneur of the Year and won the 2016 Forbes India Leadership Awards – Entrepreneur of the

Year. Ms. Gupta is regularly named in Forbes Asia Top 50 Power Business women listings for Asia Pacific. Ms. Gupta graduated from the University of Mumbai with a degree in pharmacy and received her MBA from the Kellogg School of Management at Northwestern University.

We believe Ms. Gupta's qualifications to serve on the Board include her strong leadership and management experience within the pharmaceutical industry, including serving as the chief executive officer of a global pharmaceutical corporation and her significant knowledge of operations, strategy, government relations, regulatory, finance and investments, and mergers and acquisitions, including the fact that she was not only responsible for setting up Lupin's business in the U.S. and Europe, but was instrumental in formulating and executing strategy that has helped Lupin emerge as a global pharmaceutical corporation.

Fred Hassan
Director since 2016
Age 75

Mr. Hassan has served as a Board member since June 2016. Mr. Hassan joined Warburg Pincus LLC, a global private equity investment institution, in 2010 and currently serves as Director. Previously, Mr. Hassan served as Chairman and Chief Executive Officer of Schering-Plough from 2003 to 2009. Before assuming these roles, from 2001 to 2003, Mr. Hassan was Chairman and Chief Executive Officer of Pharmacia Corporation, a company formed as a result of the merger of Monsanto Company and Pharmacia & Upjohn, Inc. He joined Pharmacia & Upjohn, Inc. as Chief Executive Officer in 1997. Mr. Hassan previously held leadership positions with Wyeth serving as Executive Vice President, and was a member of the board from 1995 to 1997. Earlier in his career, he spent a significant tenure with Sandoz Pharmaceuticals and headed the company's U.S. pharmaceuticals business.

Since July 2015, Mr. Hassan has served as a director of Amgen, Inc. (Nasdaq: AMGN), a leading biotechnology company. Mr. Hassan served as a director of Time Warner Inc. (now Warner Media, LLC), a global leader in media and entertainment, from October 2009 to June 2018. In the course of his career, he has held numerous directorships, including those at Avon Products, Inc. from 1999 to 2013, Bausch & Lomb from 2010 until its acquisition by Valeant Pharmaceuticals International, Inc. (NYSE: VRX) ("Valeant") in 2013, and Valeant from 2013 to 2014. Mr. Hassan has chaired notable pharmaceutical industry organizations including The Pharmaceutical Research and Manufacturers of America (PhRMA) and The International Federation of Pharmaceutical Manufacturers Associations (IFPMA) and is also a member of The Business Council. Mr. Hassan received a B.S. degree in chemical engineering from the Imperial College of Science and Technology at the University of London and an M.B.A. from Harvard Business School.

We believe Mr. Hassan's qualifications to serve on the Board include his strong leadership and management experience within our industry, including significant knowledge of operations, strategy, government relations, regulatory, finance and investments, and mergers and acquisitions.

Jeffrey Kindler
Director since 2011
Age 65

Mr. Kindler has served as a Board member since November 2011. He is the Chief Executive Officer of Centrexion Corporation, a privately held clinical stage biopharmaceutical company; an Operating Partner at Artis Ventures, a leading venture capital firm; a managing director at Starboard Capital Partners, a private equity firm; and a Senior Advisor at

Blackstone, an investment firm. Mr. Kindler was also a Venture Partner at Lux Capital, a leading venture capital firm, from January 2017 to January 2020. Senior Advisor at Blackstone, an investment firm. Mr. Kindler was Chief Executive Officer and Chairman of the Board of Pfizer, Inc. (NYSE: PFE), a pharmaceutical company, from 2006 until his retirement in December 2010. He joined Pfizer in 2002 as Executive Vice President and General Counsel and assumed positions of increasing responsibility until being named Chief Executive Officer in 2006. Prior to joining Pfizer, he was Vice President of Litigation and Legal Policy at General Electric Company, Executive Vice President and General Counsel at McDonald's, and President at Partner Brands.

In addition to serving on Precigen's Board, Mr. Kindler currently serves on the boards of PPD, Inc. (Nasdaq: PPD), a provider of drug development services and Terns Pharmaceuticals (Nasdaq: TERN), a clinical-stage biopharmaceutical company, and Perrigo Company (NYSE: PRGO), a healthcare company. Mr. Kindler also serves as a board member for a number of privately held companies and for several civic, charitable, educational and other organizations. He also serves as Chairman of the GLG Institute. Previously, Mr. Kindler served on the board of Siga Technologies, Inc. (Nasdaq: SIGA), a developer of novel antiviral therapeutics, vTV Therapeutics (Nasdaq: VTVT), a development-stage biopharmaceutical company, and Chipotle Mexican Grill, Inc. (NYSE: CMG), a chain of Mexican restaurants. Mr. Kindler received a B.A. from Tufts University and a J.D. from Harvard Law School.

We believe Mr. Kindler brings leadership, extensive business, operating, legal and policy, and corporate strategy experience to the Board, along with tremendous knowledge of several of the industries in which we operate as well as the fundamentals of our business.

Dean Mitchell

Director since 2009

Age 65

Mr. Mitchell has served as a Board member since March 2009. In July 2013, Mr. Mitchell was appointed Executive Chairman and board member of Covis Pharma Holdings S.a.r.l., a private specialty pharmaceutical company, which was sold in March 2020 to Apollo Capital. In 2020, he joined the boards of Kinnate Biopharma Inc. (Nasdaq: KNTE) and Praxis Precision Medicines Inc. (Nasdaq: PRAX), in both cases as chairman. Since 2012, he has served as a non-executive board member of ImmunoGen, Inc. (Nasdaq: IMGN), a public oncology company, and since July 2014 he has served as a board member of Theravance Biopharma, Inc. (Nasdaq: TBPH), a public specialty pharmaceutical company. Mr. Mitchell also served as Chairman and board member of PaxVax Inc., a private specialty vaccine company, from December 2015 to October 2018 when it was acquired by Emergent BioSolutions Inc.

Previously, Mr. Mitchell was President and Chief Executive Officer and a board member of Lux Biosciences, Inc., a privately held ophthalmology company, from July 2010 until June 2013. Prior to that, he was President and Chief Executive Officer of Alpharma Inc., a global specialty pharmaceutical company, and also was appointed a member of its board of directors in July 2006. Alpharma Inc. was acquired by King Pharmaceuticals, Inc. in December 2008, and Mr. Mitchell ceased to be an officer and a director of Alpharma Inc. in December 2008. Prior to this, he was President and Chief Executive Officer of Guilford Pharmaceuticals Inc., a public company, from December 2004 until its

acquisition by MGI Pharma Inc., a public biopharmaceutical company focused in oncology and acute care, in October 2005, and was a non-executive director of MGI Pharma Inc. until its acquisition by Eisai Co., Ltd. in January 2008. Mr. Mitchell was at Bristol-Myers Squibb, a public company, from 2001 until 2004 in several key leadership roles including President International, President U.S. Primary Care and Vice President, Strategy. He also spent 15 years at Glaxo SmithKline, a public company, and its predecessor companies, most recently as Senior Vice President, Clinical Development and Product Strategy from 1999 to 2001, and prior to that as Vice President and General Manager, Specialty Divisions, Strategic Planning and Business Development, from 1995 to 1999. Mr. Mitchell received an M.B.A. from City University Business School, in London, U.K., and a B.Sc. degree in biology from Coventry University, U.K.

We believe Mr. Mitchell brings to the Board extensive experience in the pharmaceutical industry, specifically in the areas of management, business and corporate development, sales and marketing, and clinical development as well as his significant experience serving on boards of directors of companies in our industry.

Helen Sabzevari
Director since 2020
Age 59

Dr. Sabzevari has served as Board member since June 2020, as our President and Chief Executive Officer since January 2020, and as President of PGEN Therapeutics, Inc., our wholly owned subsidiary, since December 2017. Prior to this, Dr. Sabzevari served as Senior Vice President, Health Therapeutics as well as our Head of Research and Development from July 2017 to December 2017. Prior to joining the Company, from 2015 to 2017, Dr. Sabzevari co-founded and served as Chief Scientific Officer of Compass Therapeutics LLC, a fully integrated drug discovery and development company focused on manipulating the immune system to treat human disease. From 2008 to 2014, Dr. Sabzevari served as Senior Vice President of Immuno-Oncology as well as Global Head of Immunotherapy, Oncology, Global Research and Early Development at EMD Serono (a subsidiary of Merck KGaA, Darmstadt, Germany). From 1998 to 2008, Dr. Sabzevari led the Molecular Immunology Group at the Laboratory of Tumor Immunology and Biology at the US National Cancer Institute, where she was focused on design, development, and delivery of novel vaccines and immunotherapies for a range of human cancers. Dr. Sabzevari received her doctorate degree in cell and molecular immunology and completed her postdoctoral work at the department of immunology at the Scripps Research Institute, working on various immunotherapeutic modalities in the treatment of cancer and autoimmune diseases.

We believe Dr. Sabzevari brings to the Board expertise in research and development of immunotherapy-based therapeutics, experience translating novel treatments from preclinical stage into the clinic, and extensive leadership experience and knowledge of the industry.

Robert Shapiro
Lead Independent Director
Director since 2011
Age 82

Mr. Shapiro has served as a Board member since November 2011. Mr. Shapiro is Chairman, Managing Director and Co-Founder of Sandbox Industries, which manages venture funds, including the BlueCross BlueShield Venture Partners funds and the Cultivan Sandbox Food & Agriculture Venture Funds. Mr. Shapiro has served as Managing Director of Sandbox Industries since its formation in 2004. He was formerly Chairman and Chief Executive Officer of Monsanto Company from 1995 to 2000. Upon the merger of Monsanto Company with

Pharmacia & Upjohn, he served as Chairman of the newly formed Pharmacia Corporation. Previously, Mr. Shapiro was President and Chief Operating Officer of Monsanto Company from 1992 to 1995 and President of Monsanto Company's Agriculture Group from 1990 to 1992, Chairman and Chief Executive Officer of The NutraSweet Company, a subsidiary of Monsanto Company, from 1985 to 1990 and President of the NutraSweet Group of G.D. Searle & Co., or Searle, from 1982 to 1985, where he previously served as Vice President and General Counsel. Before joining Searle, Mr. Shapiro was Vice President and General Counsel of General Instrument Corporation from 1972 to 1979. Prior to this, he practiced law in New York City; served in government as Special Assistant to the General Counsel and later to the Undersecretary of the U.S. Department of Transportation; and served as a professor of law at Northeastern University in Boston and the University of Wisconsin in Madison.

Mr. Shapiro has served on the boards of directors of the New York Stock Exchange (later NYSE Euronext), Citigroup Inc., Rockwell International, Silicon Graphics Inc. and Sapphire Energy, Inc. He currently serves as a director of Advanced Animal Diagnostics, Inc., a privately held corporation. Mr. Shapiro has served on the President's Advisory Committee on Trade Policy and on the White House Domestic Policy Review of Industrial Innovation. He is a fellow of the American Academy of Arts and Sciences. Mr. Shapiro is a graduate of Harvard College and holds a J.D. from Columbia University School of Law.

We believe Mr. Shapiro brings to the Board particular knowledge and experience in: strategic planning and leadership of complex organizations; accounting, finance and capital structure; legal, regulatory and government affairs; people management; and board practices of other entities, which strengthen the Board's collective qualifications, skills, and experience.

James Turley
Director since 2014
Age 65

Mr. Turley has served as a Board member since April 2014. Mr. Turley previously served as the Chairman and Chief Executive Officer of Ernst & Young LLP ("Ernst & Young") from 2001 until his retirement in June 2013. From 1994 to 2001, Mr. Turley served as Regional Managing Partner of Ernst & Young. Mr. Turley serves on the board of directors of Citigroup Inc. (NYSE: C), a leading global bank, Citibank, N.A., the commercial banking operations of Citigroup Inc., Emerson Electric Co. (NYSE: EMR), a global leader in bringing technology and engineering together to provide innovative solutions for customers in industrial, commercial, and consumer markets around the world, and Northrop Grumman Corporation (NYSE: NOC), a leading global security company providing innovative systems, products and solutions to government and commercial customers worldwide. Mr. Turley is also a board member of the Boy Scouts of America, a board member of Kohler Company (a privately held company), and a board member of the MUNY Theatre of St. Louis and Theatre Forward. Mr. Turley holds an undergraduate degree and a master's degree in accounting from Rice University.

We believe Mr. Turley's extensive management experience as the former Chairman and Chief Executive Officer of one of the world's largest accounting firms, his accounting and financial expertise, and his experience in serving on the boards of directors of publicly traded companies make him well qualified to serve on the Board. Having served

as Chair and CEO of Ernst & Young, Mr. Turley developed significant expertise in the areas of compensation, litigation, corporate affairs, and corporate governance. Mr. Turley also possesses extensive knowledge and expertise in the areas of financial reporting, business, and risk management.

DIRECTOR COMPENSATION

Non-Employee Director Compensation

The compensation of our non-employee directors is established by the Compensation Committee and the Board. This compensation is periodically reviewed by the Compensation Committee based on market practice information provided by our outside compensation consultant, F. Daniel Siciliano, to ensure continued alignment with company goals and shareholder interest. Under our current policy, adopted in December 2017, our non-employee directors receive the compensation set forth in the table below. We also reimburse our non-employee directors for reasonable out-of-pocket expenses incurred in connection with attending Board and committee meetings.

Element of Compensation	Compensation Amount
Annual Retainer (1)	\$50,000
Committee Chair Additional Retainer (1)	\$12,500
Committee Member Additional Retainer (1)	\$6,500
Annual Equity Awards	Options with a value of \$125,000 (2) RSUs with a value of \$125,000 (3)
Initial Appointment Equity Awards	Options with a value of \$180,000 (4) RSUs with a value of \$180,000 (5)

- (1) Non-employee directors have the option to receive shares of common stock, valued at the fair market value at the time of issuance, in lieu of cash retainers. We do not issue, nor do we pay cash for, fractional shares. Annual retainer fees are payable in advance at the first regularly scheduled meeting of the Board for the calendar year.
- (2) All non-employee directors are entitled to an annual grant of options to purchase shares of common stock (with an exercise price equal to the fair market value on the date of grant), which are granted at the first regularly scheduled meeting of the Board for the calendar year and are fully vested at the time of grant.
- (3) All non-employee directors are entitled to an annual grant of restricted stock units ("RSUs"), which are granted at the first regularly scheduled meeting of the Board for the calendar year and vest in full on the one year anniversary of the date of the grant.
- (4) Any newly appointed non-employee director receives, upon appointment, a one-time grant of options to purchase shares of common stock (with an exercise price equal to the fair market value on the date of grant), with one quarter of such options vesting each year on the anniversary of appointment to the Board, subject to continued Board service.
- (5) Any newly appointed non-employee director receives, upon appointment, a one-time grant of RSUs, which vest in full on the one year anniversary of appointment to the Board, subject to continued Board service.

DIRECTOR COMPENSATION TABLE FOR 2020

The following table discloses all compensation provided to the non-employee directors for the most recently completed fiscal year ended December 31, 2020:

Name(1)	Fees Earned or Paid in Cash(2) (\$)	Stock Awards(3)(5) (\$)	Option Awards(4)(5) (\$)	Total (\$)
Cesar Alvarez	62,499	125,000	125,000	312,499
Steven Frank	49,999	125,000	125,000	299,999
Vinita Gupta	56,499	125,000	125,000	306,499
Fred Hassan	56,499	125,000	125,000	306,499
Jeffrey Kindler	68,999	125,000	125,000	318,999
Dean Mitchell	56,499	125,000	125,000	306,499
Robert Shapiro	62,999	125,000	125,000	312,999
James Turley	62,499	125,000	125,000	312,499

- (1) Dr. Sabzevari, our CEO, and Mr. Kirk, our Executive Chairman, are named executive officers and therefore the compensation they received is shown in the Summary Compensation Table and not included in this table. Dr. Sabzevari is an employee of the Company and receives no compensation for her service as a director.
- (2) Our directors may elect to receive any portion of their annual retainer fees in shares of our common stock instead of cash. During 2020, each of our directors elected to receive all annual retainer fees in shares of our common stock. The following table provides the number of shares of our common stock received in lieu of the cash retainer by each non-employee director for 2020:

Name	Shares of Common Stock Received (#)
Cesar Alvarez	31,094
Steven Frank	24,875
Vinita Gupta	28,109
Fred Hassan	28,109
Jeffrey Kindler	34,328
Dean Mitchell	28,109
Robert Shapiro	31,343
James Turley	31,094

- (3) Represents the aggregate grant date fair market value of the annual grant of RSUs, computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718 (“ASC Topic 718”).
- (4) Represents the aggregate grant date fair market value of the annual grant of stock options, computed in accordance with ASC Topic 718, based on the closing price of our common stock on the date of grant. For a full description of the assumptions we use in computing this amount, see Note 2 to our consolidated financial statements for the year ended December 31, 2020, which is included in our 2020 Annual Report.
- (5) The following table provides information regarding the aggregate outstanding equity awards held by each non-employee director as of December 31, 2020:

Name	RSUs Outstanding (#)	Stock Options Outstanding (#)	Unvested Stock Options (#)
Cesar Alvarez	62,189	232,067	—
Steven Frank	62,189	232,067	—
Vinita Gupta	62,189	208,020	10,000
Fred Hassan	62,189	223,240	—
Jeffrey Kindler	62,189	243,946	—
Dean Mitchell	62,189	232,067	—
Robert Shapiro	62,189	243,946	—
James Turley	62,189	255,826	—

Equity Ownership for Board of Directors

The Board believes that directors should hold meaningful equity ownership positions in the Company to help align the interests of directors with those of shareholders. Under our stock ownership guidelines for directors, non-employee directors are expected to be beneficial owners of shares of our common stock with a market value equivalent to at least five times the amount of annual cash retainer fees (not including any additional retainer for service as a Committee Chair or Lead Independent Director, and as adjusted from time to time). Non-employee directors have five years to satisfy the ownership requirement, which is measured from the later of June 2018 (when the current requirement was adopted) or the date of appointment for newly appointed non-employee directors. Compliance with the requirement is measured on an annual basis each year using the closing price of our common stock as of December 31st.

For purposes of the equity ownership guidelines described above, a non-employee director’s shareholdings include, in addition to shares held outright, any stock underlying vested but unexercised stock options assuming the stock options have been “net exercised.” Stock underlying equity awards that remain unvested will not count towards the requirement, regardless of whether the award is time- or performance-based.

Until a non-employee director has met our equity ownership guidelines, he or she is expected to hold 100% of any stock acquired through exercise of a stock option or vesting of restricted stock, net of shares sold to cover the cost of acquisition and any tax obligation. In addition, non-employee directors must further hold all net shares for a minimum of one year following exercise, in the case of stock options, or vesting, in the case of other equity awards.

PROPOSAL 2
RATIFICATION OF APPOINTMENT OF INDEPENDENT
REGISTERED PUBLIC ACCOUNTING FIRM

Background

After consideration of the firm’s qualifications and past performance, the Board, through the Audit Committee, has appointed Deloitte & Touche LLP (“Deloitte”) as our independent registered public accounting firm for the fiscal year ending December 31, 2021.

Deloitte was initially engaged as our independent registered public accounting firm for the fiscal year ended December 31, 2019. The Audit Committee has again selected Deloitte as our independent registered accounting firm for the year ending December 31, 2021 and believes that the retention of Deloitte for the 2021 fiscal year is in the best interest of us and our shareholders.

Under the Sarbanes-Oxley Act of 2002 and the rules of the SEC promulgated thereunder, the Audit Committee is solely responsible for the selection, appointment, compensation, and oversight of the work of our independent registered public accounting firm. Although submission of the appointment of an independent registered public accounting firm to shareholders for ratification is not required by law, the Board considers the appointment of our independent registered public accounting firm to be an important matter of shareholder concern and is submitting the appointment of Deloitte for ratification by our shareholders, as a matter of good corporate practice. One or more representatives of Deloitte are expected to be present at the Annual Meeting with the opportunity to make a statement if they so desire and to be available to respond to appropriate questions.

If shareholders do not ratify the selection of Deloitte, the Audit Committee may, but is not required to, reconsider its selection if the shareholders’ action so warrants. Even if the selection is ratified, the Audit Committee, exercising its own discretion, may select different auditors at any time during the year if it determines that such a change would be in our best interests and in the best interests of our shareholders.

Required Vote and Board Recommendation

The affirmative vote of a majority of the votes cast on the matter is required for the approval of this item. As this proposal is considered a “routine item,” your bank, broker, or other nominee may vote your shares “for” the proposal without receiving your voting instructions. Abstentions and broker non-votes will not count either in favor of or against the proposal.

THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE “FOR” THE RATIFICATION OF THE APPOINTMENT
OF DELOITTE & TOUCHE LLP.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Principal Accountant Fees

The following table summarizes the aggregate fees billed by Deloitte for the fiscal year ended December 31, 2020 and, for comparison purposes, the aggregate fees billed by Deloitte for the fiscal year ended December 31, 2019. The Audit Committee approved all of the services described below.

	Fiscal Year Ended December 31,	
	2020	2019
Audit Fees	\$ 1,669,500	\$ 1,491,200
Audit-Related Fees	175,000	—
Tax Fees	196,928	—
All Other Fees	—	—
Total Fees	\$ 2,041,428	\$ 1,491,200

Audit Fees

Audit fees include professional services rendered by our independent auditors for the audit of our annual financial statements, including the reviews of the financial statements included in our quarterly reports on Form 10-Q. This category also includes fees for assistance with complex accounting transactions, fees for audits provided in connection with subsidiaries and statutory filings or services that generally only the principal auditor can reasonably provide to a client, and consents and assistance with and review of documents filed with the SEC.

Audit-Related Fees

Audit-related fees consist of amounts for a comfort letter issued in connection with a registration statement.

Tax Fees

Tax fees include original and amended tax returns, studies supporting tax return amounts as may be required by Internal Revenue Service regulations, claims for refunds, assistance with tax audits and other work directly affecting or supporting the payment of taxes, planning, research, and advice supporting our efforts to maximize the tax efficiency of our operations. Tax fees in 2019 were billed by PricewaterhouseCoopers LLP and are therefore not shown in the table.

All Other Fees

All other fees are fees for products or services other than those in the above three categories. In fiscal years 2020 and 2019, our independent auditors did not provide any services other than those described above.

Pre-Approval Policy

The Audit Committee has adopted a written policy for the provision of audit services and permitted non-audit services by our independent registered public accounting firm. Our Chief Financial Officer has primary responsibility to the Audit Committee for administration and enforcement of this policy and for reporting non-compliance. Under the policy, the Audit Committee receives a presentation of an annual plan for audit services and for any proposed audit-related, tax, or other non-audit services to be performed by the independent registered public accounting firm, but management may, from time to time, seek approval of certain additional audit or non-audit services not provided for in the budget. Rule 2-01 of Regulation S-X provides an exception to the requirement for pre-approval of non-audit services for *de minimis* amounts under certain circumstances. Our policy does not include the *de minimis* exception, and during fiscal years 2020 and 2019, no non-audit services were performed pursuant to the *de minimis* exception.

AUDIT COMMITTEE REPORT

In accordance with the Audit Committee Charter, the Audit Committee assists the Board in fulfilling its responsibility for oversight of the integrity of our accounting, auditing, and financial reporting practices. During the fiscal year ended December 31, 2020, the Audit Committee met 11 times. The Audit Committee reviewed and discussed the interim financial information contained in our Quarterly Reports on Form 10-Q with our Chief Financial Officer, our Chief Legal Officer, and the independent registered public accounting firm prior to public release.

In discharging its oversight responsibility as to the audit process, the Audit Committee has received the written disclosures and the letter from Deloitte required under the applicable requirements of the Public Company Accounting Oversight Board (“PCAOB”) regarding Deloitte’s communications with the Audit Committee concerning independence, and has discussed with our independent registered public accounting firm its independence. The Audit Committee also discussed with management the quality and adequacy of our internal controls. The Audit Committee reviewed with Deloitte their audit plans, audit scope, and identification of audit risks.

The Audit Committee members are not professional accountants or auditors, and their functions are not intended to duplicate or to certify the activities of management or our independent registered public accounting firm. The Audit Committee oversees our financial reporting process on behalf of the Board. Our management has primary responsibility for the financial statements and reporting process, including our internal control over financial reporting. Deloitte is responsible for performing an integrated audit of our financial statements and internal control over financial reporting in accordance with the auditing standards of the PCAOB.

The Audit Committee reviewed and discussed with Deloitte the matters required to be discussed by the applicable requirements of the PCAOB and the SEC, and, with and without management present, discussed and reviewed the results of Deloitte’s audit of the financial statements. The Audit Committee also considered, as it determined appropriate, tax matters, and other areas of financial reporting and the audit process over which the Audit Committee has oversight.

The Audit Committee reviewed and discussed our audited financial statements as of and for the fiscal year ended December 31, 2020 with management and Deloitte. Management has the responsibility for the preparation of our financial statements and Deloitte has the responsibility for the audit of those statements.

Based on the above-mentioned review and discussions with management and Deloitte, the Audit Committee recommended to the Board that our audited financial statements be included in its Annual Report on Form 10-K for the fiscal year ended December 31, 2020, for filing with the SEC.

In connection with the evaluation, appointment, and retention of the independent auditors, the Audit Committee annually reviews the qualifications, performance, and independence of the independent auditor, and lead engagement partner, and assures the regular rotation of the lead engagement partner as required. In doing so, the Audit Committee considers a number of factors including, but not limited to: quality of services provided; technical expertise and knowledge of the industry; effective communication; and objectivity. The Audit Committee also considers whether the non-audit services provided by Deloitte are compatible with maintaining Deloitte’s independence. The Audit Committee reappointed Deloitte, subject to shareholder ratification, as our independent registered public accounting firm for the fiscal year ending December 31, 2021.

The Audit Committee

Jeffrey Kindler, Chair
Dean Mitchell
Robert Shapiro

PROPOSAL 3
NON-BINDING PROPOSAL TO APPROVE THE COMPENSATION OF THE
NAMED EXECUTIVE OFFICERS

General

The Board has determined to provide our shareholders the opportunity to vote each year to approve, on an advisory basis, the compensation of our named executive officers, as disclosed in this Proxy Statement. The compensation of our named executive officers is described in the Compensation Discussion and Analysis, the compensation tables and the accompanying narratives herein.

The Compensation Committee designs our executive compensation program to attract, motivate, and retain executive officers who are critical to our success. Under these programs, our named executive officers are rewarded for the achievement of our near-term and longer-term financial and strategic goals and for driving corporate financial performance and stability. The programs contain elements of cash and equity-based compensation and are designed to align the interests of our executives with those of our shareholders.

Our compensation program reflects competition and reasonable practices in the marketplace. The mix of compensation components is competitive with that of other companies of similar size and operational characteristics, links compensation to individual and corporate performance and encourages stock ownership by senior management. Based on its review of the total compensation of our named executive officers for 2020, the Compensation Committee believes that the total compensation for each of the named executive officers is reasonable and effectively achieves the objective of aligning compensation with the achievement of our financial goals and creation of shareholder value without encouraging our named executive officers to take unnecessary or excessive risks.

The Compensation Discussion and Analysis section of this Proxy Statement and the accompanying tables and narrative provide a comprehensive review of our named executive officer compensation objectives, program, and rationale. We urge you to read this disclosure before voting on this proposal.

Pursuant to Section 14A of the Exchange Act, the Board is requesting shareholders approve an advisory vote on the following resolution:

“RESOLVED, that our shareholders approve, on a non-binding advisory basis, the compensation of the named executive officers as disclosed in the Proxy Statement for the 2021 Annual Meeting of Shareholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the Summary Compensation Table, the other related tables and the accompanying narrative.”

As an advisory vote, your vote on this proposal will be non-binding on the Board. However, the Board values the opinions that our shareholders express in their votes and will consider the outcome of the vote when making future executive compensation decisions as it deems appropriate.

We seek shareholder approval of our executive compensation on an annual basis. The next opportunity for our shareholders to approve on a non-binding basis the compensation of our named executive officers will be at our 2022 Annual Meeting.

Vote Required and Board Recommendation

The affirmative vote of a majority of the votes cast on the matter is required for the approval of this item. As this proposal is not considered a “routine item,” your bank, broker, or other nominee cannot vote your shares without receiving your voting instructions. Abstentions and broker non-votes will not count either in favor of or against the proposal.

THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE TO APPROVE THE NON-BINDING ADVISORY PROPOSAL APPROVING THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS.

IDENTIFICATION OF EXECUTIVE OFFICERS

Set forth below is information regarding the position, age, and business experience of each of our executive officers.

Helen Sabzevari, Ph.D., age 59, Chief Executive Officer. For more information about Dr. Sabzevari, please see her biography under “Nominees for Election as Directors.”

Randal Kirk, age 67, Executive Chairman and Chairman of the Board. For more information about Mr. Kirk, please see his biography under “Nominees for Election as Directors.”

Rick Sterling, age 57, Chief Financial Officer. Mr. Sterling served as our Chief Financial Officer 2007 through April 2, 2021. Prior to joining us, he was with KPMG where he worked in the audit practice for over 17 years, with a client base primarily in the healthcare, technology, and manufacturing industries. Mr. Sterling is currently a member of the board of directors of AquaBounty Technologies Inc., a (Nasdaq: AQB) that was our majority-owned subsidiary until October 2019.

Donald P. Lehr, age 46, Chief Legal Officer. Mr. Lehr has served as our Chief Legal Officer since 2011. From 2009 to 2011 he served as our Associate General Counsel. Mr. Lehr has broad experience in the areas of corporate, securities, and general business law. Prior to joining us, he practiced law with the law firm of Hogan Lovells US LLP (formerly Hogan & Hartson, LLP) in Baltimore, Maryland from 2002 to 2009. While at Hogan Lovells, his practice included the representation of privately and publicly held corporations across many industries, including biotechnology, pharmaceuticals, healthcare, software, technology, and manufacturing. Prior to his time at Hogan Lovells, Mr. Lehr served as a judicial clerk for the Honorable Irma S. Raker of the Court of Appeals of Maryland. Mr. Lehr received a B.A. from Swarthmore College and received a J.D. from the University of Maryland School of Law.

Jeffrey Perez, age 49, Senior Vice President, Intellectual Property Affairs. Mr. Perez has served as our Senior Vice President, Intellectual Property Affairs since August 2014. Until April 20, 2020 Mr. Perez served as a member of the board of directors of AquaBounty Technologies Inc., a public biotechnology company (Nasdaq: AQB) that was our majority-owned subsidiary until October 2019. Before joining Precigen, Mr. Perez was Managing Director and Associate General Counsel and Intellectual Property at Third Security, LLC, where he evaluated potential investments of Third Security’s managed investment funds. Additionally, Mr. Perez worked with Third Security portfolio companies in evaluating and developing their intellectual property strategies and general corporate activities. Prior to joining Third Security, Mr. Perez practiced intellectual property law with the law firm of Hunton & Williams LLP in Washington D.C. Mr. Perez’s previous work involved client consultation, litigation, agreement work, opinion drafting, and patent procurement. Mr. Perez received a B.S. from Cornell University and his J.D. from George Mason University School of Law.

D. Bradford (“Brad”) Osborne, age 41, Vice President, Finance and Accounting. Mr. Osborne has served as our Vice President, Finance and Accounting since 2016. From 2011 to 2016 he served as our Senior Director, Finance and Accounting and Executive Director, Finance and Accounting. Effective April 2, 2021, Mr. Osborne was appointed to serve as our principal accounting officer for an interim period while the Company searches for Mr. Sterling’s replacement as Chief Financial Officer. Prior to joining us, Mr. Osborne was the Accounting Director, Portfolio Investments for Third Security, LLC, where he advised Third Security’s portfolio companies on accounting and finance matters. Prior to Third Security, Mr. Osborne was with KPMG LLP where he worked in the audit practice for over six years beginning his career as an Associate and advancing to Senior Manager. His client base was primarily in the life sciences and manufacturing industries.

COMPENSATION DISCUSSION AND ANALYSIS

The Compensation Committee oversees our executive compensation programs. In this role, the Compensation Committee reviews and approves all compensation decisions relating to our named executive officers. To assist with its duties, the Compensation Committee has engaged F. Daniel Siciliano as its outside compensation consultant to provide competitive compensation data and assist with the analysis and implementation of various aspects of our executive compensation decisions. Mr. Siciliano coordinates the procurement of data through third-party data providers and synthesizes that data and related information in order to provide advice that the Compensation Committee considers in making its executive compensation decisions.

This section discusses the principles underlying our executive compensation programs, policies, and decisions and explains the process the Compensation Committee uses to determine compensation and benefits for our named executive officers. It also provides qualitative information regarding the manner and context in which compensation is earned by and awarded to our named executive officers and is intended to place in perspective the data presented in the tables and narrative that follow.

The discussion and analysis of our compensation program for our named executive officers should be read in conjunction with the tables and text elsewhere in this Proxy Statement that describe the compensation awarded to, earned by or paid to our named executive officers.

The individuals who served as our CEO and Chief Financial Officer during 2020, as well as the other individuals included in the Summary Compensation Table, are referred to throughout this Proxy Statement as the “named executive officers” and, to the extent they remain employed by us, together with the other executives of management, as the “executive officers.”

Our named executive officers for 2020 are:

Name	Position
Helen Sabzevari, Ph.D.	President and Chief Executive Officer
Randal Kirk	Executive Chairman
Rick Sterling	Chief Financial Officer
Donald P. Lehr	Chief Legal Officer
Jeffrey Perez	Senior Vice President, Intellectual Property Affairs

Executive Summary

Our goal for our executive compensation is to provide a comprehensive package that is sufficient to attract, motivate, and retain executives of outstanding ability, performance, and potential. The Compensation Committee seeks to establish and maintain an appropriate relationship between executive compensation and the creation of shareholder value. The Compensation Committee believes that the most effective compensation program is one that provides competitive base pay, rewards the achievement of established annual and long-term goals and objectives, and provides incentives for retention.

The Compensation Committee assists the Board in fulfilling its oversight responsibilities with respect to the compensation of our executive officers. The Compensation Committee is responsible for:

- establishing and administering the base salaries and annual incentive awards of our executive officers, and
- administering and making recommendations and awards under our equity incentive plans.

The Compensation Committee monitors the compensation paid to our executive officers to ensure it is fair, reasonable, and competitive and is substantially tied to our performance. The Compensation Committee evaluates, both subjectively and objectively, our financial performance, competitive position, future potential, and the individual and group performance of the members of executive management. In such evaluation, the Compensation Committee reviews data prepared by management and employs the business experience of the individual members of the Compensation Committee. The Compensation Committee also utilizes the assistance of Mr. Siciliano as its outside compensation consultant.

The Company entered 2020 at the culmination of a strategic process through which it focused its operations on its healthcare programs. As part of this process, the Company made a change to its executive leadership structure, promoting Dr. Sabzevari to the role of President and Chief Executive Officer. Through 2020, the Company completed the divestiture of a number of our non-healthcare businesses and assets, discontinued and deemphasized certain other non-healthcare programs, and made significant clinical and preclinical advancements with respect to its healthcare programs. In addition, the Company transformed aspects of its corporate organization to better align with the Company's ongoing healthcare focus. All of this progress was made in the face of, and notwithstanding, the global COVID 19 pandemic. For 2020, after taking into account the overall position of the Company and with a focus on retention and cash preservation, the Compensation Committee retained the existing base salaries for our executive officers, and made annual incentive awards consisting of a mixture of cash and equity, but no long-term incentive awards were granted for 2020.

Key Compensation Corporate Governance Practices

The Compensation Committee and the Board regularly review evolving practices in executive compensation and corporate governance. We have adopted certain policies and practices that we believe are consistent with industry best practices, as tailored to our specific business model and strategic direction. We have also strived to adopt policies that will foster our growth and the continual realization of value to our shareholders by encouraging appropriate risk taking and entrepreneurship in support of our unique and dynamic business model. The Compensation Committee and the Board also actively scrutinize the anticipated effect of compensation practices on our ultimate goals.

What We Do:

- We ensure independence in establishing our executive compensation program.
- We use what we believe to be an appropriate mix of short-term and long-term compensation.
- We conduct an annual review and assessment of potential and existing risks arising from our compensation programs and policies.
- We engage an outside compensation consultant to advise on executive compensation matters.
- We assess risks relating to our executive compensation program.
- We use equity awards that vest over time and deliver greater value as our stock price increases.

What We Do Not Do:

- We do not allow hedging of Company stock.
- We do not provide excessive perquisites.
- We do not provide for tax gross-ups, except for *de minimis* amounts related to short-term and long-term disability insurance premiums.
- We do not allow repricing of stock options without shareholder approval.
- We do not offer guaranteed bonuses.

Our Compensation Philosophy

Our compensation philosophy is guided by the principle of pay-for-performance. Our compensation programs are designed to support our business goals by rewarding achievement of short-term and progress towards long-term objectives in a manner that links compensation of our executive officers with the value created for our shareholders. While aligning our executive officers' compensation with our short-term and long-term business goals, we aim to provide the incentives needed to attract, motivate, reward, and retain our management talent, which is crucial to our long-term success.

Principles of Our Compensation Framework

Our executive compensation program is designed to attract, retain, motivate, and reward talented individuals who will execute our business plan so that we can succeed in the competitive and highly volatile business environment in which we operate. The Compensation Committee believes that the compensation program for our executive officers should reward the achievement of our short-term and long-term objectives and that compensation should be related to the value created for our shareholders. Furthermore, the compensation program should reflect competition and best practices in the marketplace. The following objectives serve as the Compensation Committee's guiding principles for all compensation decisions:

- Our executive compensation and benefits should attract, motivate, reward, and retain the management talent necessary to achieve our business objectives at compensation levels that are fair, equitable, and competitive with those of comparable companies.
- Compensation should be set based on the leadership of each executive officer, which reflects skill sets, experience, and achievement, to create a competitive framework for talent acquisition and retention.
- Compensation should be linked to individual and corporate performance by aligning our executive compensation program to company-wide performance, which is assessed in terms of financial and non-financial performance and creation of long-term value for our shareholders.
- There should be an appropriate mix and weighting among base salary, annual incentive awards and long-term equity incentive awards such that an adequate amount of each executive officer's total compensation is performance-based or "at risk." Further, as an executive's responsibilities increase, the portion of "at-risk" compensation for the executive should also increase as a percentage of total compensation.

In addition, the Compensation Committee believes that the various elements of our compensation program effectively align compensation with performance measures that are directly related to our financial goals and creation of shareholder value without encouraging executives to take unnecessary and excessive risks.

Developments in Executive Compensation for 2020

We review our executive compensation practices annually to ensure that our plans and practices are supportive of our goals, remain competitive, and are in keeping with the best interests of our shareholders. The company entered 2020 in the midst of a strategic process through which it focused its operations on its healthcare programs. As part of this process, the company made a change to its executive leadership structure, promoting Dr. Sabzevari to the role of President and Chief Executive Officer effective January 1, 2020.

As more fully described below, Dr. Sabzevari's employment agreement provides for eligibility for an annual bonus beginning in 2020 of between 75% and 150% of Dr. Sabzevari's annual base salary. In light of the realignment of the company and the new incentive compensation arrangement for the CEO, the Compensation Committee elected to utilize similar specific performance objectives in considering the incentive compensation for the other named executive officers.

Also as more fully described below, the Compensation Committee carried out a comprehensive process to determine the appropriate compensation for Mr. Kirk in his role as Executive Chairman.

Elements of Our Compensation Program

The Compensation Committee has a mix of compensation components that it utilizes, with the intent to make each component of total direct compensation competitive while also linking compensation to individual and corporate performance and encouraging stock ownership by our executive officers. The table below describes each compensatory element in our program and briefly explains how it promotes our objectives. We believe the combination of these elements provides an appropriate balance of rewards, incentives, and benefits to our executives and enables us to meet our desired compensation objectives, strengthen our ability to attract and retain highly qualified individuals, and to appropriately link pay to performance.

Element of Compensation	Description	How This Element Promotes Our Objectives
Annual Compensation		
Base Salary	Fixed annual compensation that is certain in payment and provides continuous income.	Aids in both recruitment and retention; designed to be competitive in the marketplace.
Annual Incentive Awards	Performance-based compensation for achieving goals and objectives.	Motivates and rewards achievement of annual corporate objectives by providing at-risk comprehensive pay opportunities linked to performance.
Long-Term Compensation		
Equity Incentive Awards	Grants of options and/or RSUs that are part of our long-term incentive program; time-based vesting, generally over four years. However, after taking into account the overall position of the Company during the business transitions made during the year, the Compensation Committee did not grant long-term incentive awards for 2020.	Promotes retention, increases long-term equity ownership, and aligns executive and long-term shareholder interests by linking a portion of their compensation to changes in company stock price. RSUs additionally provide officers with awards that have immediate value.
Other Compensation		
Post-Termination Payments and Benefits	Payments and benefits upon termination of an executive's employment in specified circumstances, such as termination other than for cause, resignation for good reason, retirement, death, disability, or a change in control, as described in greater detail herein.	Provides assurance of financial security, which is desirable in lateral recruiting and executive retention and permits objective evaluation by executives of potential changes to our strategy and structure.
Other Benefits	Executives participate in employee benefit plans generally available to our employees.	Fair and competitive programs to provide for the health and well-being of executives and their families.

We do not provide our executives with any meaningful perquisites that are not provided to employees generally. We also do not have any deferred compensation programs or retirement programs other than our 401(k) Plan that is generally available to all employees. We enroll all eligible employees, other than our Executive Chairman, in the same health, dental, and life and disability insurance programs.

Base Salary

General

Base salary levels for our executive officers with the exception of our CEO and Executive Chairman are recommended to the Compensation Committee by our CEO and are subject to approval by the Compensation Committee and the Board. In setting the base salary level for each executive officer (other than our CEO and

Executive Chairman), the Compensation Committee generally considers the executive officer's experience level, demonstrated capabilities, time and placement in position, our geographic region, individual performance, and potential future contributions to our Company. In addition, the Compensation Committee may consider executive compensation data for the industry as a whole, including data from similarly situated companies. Base salaries are reviewed annually by the Compensation Committee. When making decisions to adjust executive salaries, the Compensation Committee will also consider our overall financial performance in addition to the factors identified above. No particular weight is assigned to any one factor. Taking into account the overall position of the Company, the Compensation Committee determined not to make any changes to base salary for our named executive officers in 2020.

Compensatory Arrangements for Our Executive Chairman

Mr. Kirk served as an executive officer of the Company through September 24, 2020. At that time he ceased serving as an executive officer of the Company, but continued his service as Executive Chairman as a member of the Board. The base salary for Mr. Kirk was defined pursuant to the terms of the RSU Agreement between the Company and Mr. Kirk. On October 30, 2015, the Compensation Committee and the independent members of the Board approved the RSU Agreement as a compensation arrangement for Mr. Kirk. Previously, Mr. Kirk did not receive compensation for his services as our CEO other than through his participation in our Annual Incentive Plan, as defined below, which became effective January 1, 2015. Under the arrangement, Mr. Kirk received as compensation a payment of \$200,000 per month, which payment was made in fully vested shares of our common stock that are subject to a three-year lock-up on resale from the date of issuance. Beginning in April 2019, the number of RSUs underlying each award was based on the volume weighted average price of the common stock over the 30-day period ending on the last day of the month, as opposed to previously being based on the closing price on the last calendar day of the month. The RSU Agreement became effective in November 2015 and had an initial term of 12 months. The independent members of the Board, with the recommendation of the Compensation Committee, subsequently approved extensions of the RSU Agreement, with the final term lasting through March 31, 2020. All such extensions had been on substantially similar terms as the original RSU Agreement, with the exception of the stock calculation as noted above.

Following the March 31, 2020 expiration of his RSU Agreement, the Compensation Committee undertook a review, together with its compensation consultant, to determine the appropriate compensation for Mr. Kirk's role as Executive Chairman. Following this process, in light of Mr. Kirk's experience, prior role as the Company's chief executive officer as well as additional and continuing responsibilities expected of him in the role of Executive Chairman, the Compensation Committee determined that it was appropriate for his compensation to be structured and paid in the same manner as the other independent directors but with the effective compensation amounts set at approximately two times the total paid to each director.

Annual Incentive Awards

General

Prior to 2020, the awarding of annual incentive bonuses for our executives was carried out pursuant to an Annual Incentive Plan. This Annual Incentive Plan was administered by the Compensation Committee, which had sole authority to formulate adjustments and make interpretations under the Annual Incentive Plan as it deemed appropriate.

As more fully described below, Dr. Sabzevari's employment agreement provides for eligibility for an annual bonus beginning in 2020 of between 75% and 150% of Dr. Sabzevari's annual base salary, contingent upon continuous employment by us and Dr. Sabzevari's performance during the bonus period and through the date on which the bonus is paid, as determined in the sole discretion of the Board. In consultation with Dr. Sabzevari and its compensation consultant, the Compensation Committee formulated a set of performance goals against which to assess the performance of Dr. Sabzevari. The Compensation Committee considered applying a specific weighting to the goals but, in order to ensure the Compensation Committee has maximum flexibility to evaluate Dr. Sabzevari's performance in her first year as CEO, they elected to leave the weighting of the goals to its subsequent discretion. The 2020 goals adopted by the Compensation Committee for the CEO consisted of the following:

- o Advance the company's product candidates and achieve scientific milestones, with a particular focus on the company's UltraCar-T and adenoviral platforms.

- o Achieve measurable business development objectives, including with respect to partnering opportunities for non-core clinical assets and commercial developments that improve the financial performance of the company's Trans Ova and Exemplar businesses.
- o Streamline and advance the company's operations consistent with the ongoing transition to a healthcare-focused company, as reflected by reduced cash use, including in non-core businesses and functions, and appropriate organizational and operational changes, including to overall staffing levels.

Following the end of the year, the Compensation Committee reviewed the performance of the Company and executive management against these goals. In order to do so, they received from management a detailed accounting of the company's achievements in the areas of research and development, business development, and corporate operations. They discussed these accomplishments with Dr. Sabzevari and, subsequently, with members of the Board and its compensation consultant. Based on the significant accomplishments of the company under Dr. Sabzevari's first year of leadership, the Compensation Committee recommended to the Board the approval of a performance bonus in an aggregate amount equal to 150% of Dr. Sabzevari's base salary. The Compensation Committee also evaluated the form for this incentive bonus and proposed that 50% of the total be paid in cash and 50% in shares of the company's common stock. Accordingly, Dr. Sabzevari received a cash bonus in the amount of \$ 750,002 and 97,276 RSUs granted on March 25, 2021 and will become 100% vested on May 12, 2021.

In 2020, the Compensation Committee determined not to utilize our formal Annual Incentive Plan for the other executive officers. Rather, in light of the realignment of the company and the new incentive compensation arrangement for the CEO, the Compensation Committee elected to utilize similar specific performance objectives in considering the incentive compensation for the other named executive officers other than Dr. Sabzevari and Mr. Kirk. In addition to considering the company's achievements, they also took under advisement the recommendations of Dr. Sabzevari and the guidance of the compensation consultant. Based on these considerations, the Compensation Committee recommended the following performance bonuses for the named executive officers other than Dr. Sabzevari and Mr. Kirk, each of which was paid 50% in cash. The remaining 50% was paid to Messrs. Perez and Lehr in RSUs based on the grant date fair market value of the Company's shares, with the value of any partial shares paid in cash as reflected in the table below. The RSU grants to Messrs. Perez and Lehr were made on March 25, 2021 and will become 100% vested subject to continued employment though May 14, 2021 and May 18, 2021, respectively.

Name	<u>Annual Bonus (% of Base Salary)</u>	<u>Total Value of Annual Bonus</u> (%)	<u>Cash Payment (\$)</u>	<u>Shares Granted (#)</u>
Jeffrey Perez	70%	350,000	175,006	22,697
Donald P. Lehr	70%	402,500	201,254	26,102

The Compensation Committee determined, consistent with the approach taken by the company with respect to other transitioning executives, not to award an annual performance bonus to Mr. Sterling for the year 2020.

Long-Term Equity Incentive Awards

Our primary objectives in granting long-term equity incentive awards are to encourage significant ownership of our common stock by management and to provide long-term financial incentives linked directly to our long-term performance. The Compensation Committee believes that significant ownership of our common stock by senior management helps to align the interests of management and the shareholders. However, after taking into account the overall position of the Company during the business transitions made during the year, the Compensation Committee did not grant long-term incentive awards for 2020.

Our long-term equity incentive awards have historically been in the form of time-vested stock options, generally vesting over four years. However, in a change prompted by (i) a desire to further align long-term compensation with company performance and (ii) an effort to strategically respond to the evolving recruitment and retention strategies of current or future competitors for our desired pool of executive talent, the Compensation Committee determined that, beginning in fiscal year 2018, it was appropriate to incorporate RSUs into the mix of long-term equity incentive awards contemplated as part of its long-term compensation strategy. The inclusion of RSUs is reflected in the 2020 long-term equity grants to executives, and is expected to continue to be a component of our long-term equity incentive compensation strategy.

Although we do not have a formal policy with respect to the grant of equity incentive awards to our executive officers, or any formal equity ownership guidelines applicable to them, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture, and help to align the ownership interests of our executives and our shareholders. In addition, we believe that equity grants with a time-based vesting feature promote executive retention by incentivizing our executive officers to remain in our employment during the vesting period. Further, the levels at which they are granted, we believe, are competitive and appropriate for a company such as ours that is in a stage of anticipated growth with anticipated potential upside in stock performance over the long term. The size of the awards has historically taken into account a number of factors, including company performance as defined by the achievement of strategic objectives, individual performance, stock price performance, salary level, and tenure. The Compensation Committee believes that broad and significant employee ownership of our common stock effectively motivates the building of shareholder wealth.

With the exception of significant promotions and new hires, equity grants, when awarded, have generally been awarded toward the beginning of the fiscal year. The Compensation Committee selects this timing because it enables us to consider our prior year performance and the participants' and our expectations for the next performance period.

Equity Awards for 2019 Performance

In March 2020, the Compensation approved grants of RSUs to certain of our named executive officers for 2019 performance as part of our annual incentive program. These awards are reported in the Summary Compensation Table for 2020 because they are equity awards, notwithstanding that the grants were made in respect of 2019 performance. A further discussion of these awards is included in the Compensation Discussion and Analysis contained in the proxy statement for our 2020 Annual Meeting of Shareholders.

Other Benefits

The Compensation Committee believes employee benefits are an essential component of our competitive total compensation package. These benefits are designed to attract and retain our employees. The executive officers may participate in, and we make contributions on their behalf to, the same benefit plans that are provided to all of our eligible employees, which include medical, health and dental insurance, long-term disability insurance, accidental death and disability insurance, and our 401(k) Plan. As part of the 401(k) Plan, we generally match 100% of the first 3% of compensation contributed by the employee into the 401(k) Plan subject to the Internal Revenue Code and our 401(k) Plan limits. We have disclosed all company matches for our named executive officers in the column labeled "All Other Compensation," in the Summary Compensation Table herein, and separately disclosed each amount in the All Other Compensation Table for 2019 herein.

Employment Agreement with Dr. Sabzevari

In connection with her appointment to the position of President and CEO in January 2020, we entered into an employment agreement with Dr. Sabzevari (the "Employment Agreement"). The term under the Employment Agreement commenced on January 1, 2020 and continues until terminated in accordance with the Employment Agreement.

Dr. Sabzevari's initial annual base salary under the Employment Agreement is \$1,000,000. On January 5, 2020 (the "Grant Date"), pursuant to the terms of the Employment Agreement, Dr. Sabzevari received a grant of (i) restricted stock units equal to 500,000 shares of Precigen common stock, which will vest on the first anniversary of the Grant Date (the "RSU Grant"), (ii) incentive stock options to purchase up to 1,500,000 shares of our common stock with an exercise price of \$5.95 (the "FMV"), 50% of which will vest on the first anniversary of the Grant Date and the remaining 50% of which will vest in equal installments on each of the next three anniversaries of the Grant Date (together with the RSU Grant, the "Initial Equity Grants"), (iii) incentive stock options to purchase up to 1,500,000 shares of Precigen common stock with an exercise price of twice the FMV, and (iv) incentive stock options to purchase up to 1,500,000 shares of Precigen common stock with an exercise price of three times the FMV (together with (iii), the "Performance Equity Grants"). Each of the Performance Equity Grants will vest in four equal annual installments on each of the first four anniversaries of the Grant Date.

The Employment Agreement also provides for eligibility for an annual bonus beginning in 2020 of between 75% and 150% of Dr. Sabzevari's annual base salary, contingent upon continuous employment by us and Dr. Sabzevari's performance during the bonus period and through the date on which the bonus is paid, as determined in the sole discretion of the Board. Pursuant to the Employment Agreement, Dr. Sabzevari will be entitled to participate in all employee benefit plans that are generally made available to senior Precigen exempt executives.

Severance provisions in Dr. Sabzevari's employment agreement are further discussed above in the section "Potential Payments upon Termination or a Change in Control."

The Compensation Review Process

Process for Approval of Compensation Measures

Management makes a recommendation to the Compensation Committee and the Board regarding key financial goals, operational goals, and performance measures that will guide us for the relevant fiscal year. Specific metrics are recommended by the Compensation Committee and approved by the Board and become the compensation measures for the executive officers. As discussed above, for 2020, the Compensation Committee ultimately did not follow this process for purposes of setting 2020 annual incentive performance objectives.

Role of the Compensation Committee and Management

Governance of our compensation program is the responsibility of the Compensation Committee, which consists solely of independent directors. At the direction of the Compensation Committee, our CEO prepares compensation recommendations regarding the compensation of each of our executive officers, other than for the CEO, and presents those recommendations to the Compensation Committee for approval. The Compensation Committee evaluates the overall performance of the executive officers based on our achievement of corporate performance objectives and goals and individual performance. The Compensation Committee then reviews and takes into account all elements of executive compensation in setting policies and determining compensation amounts.

Role of Compensation Consultant

As discussed above, the Compensation Committee is authorized to retain experts, consultants, and other advisors to aid in the discharge of its duties. In 2020, the Compensation Committee retained F. Daniel Siciliano as its outside compensation consultant. Mr. Siciliano is the co-founder of Stanford's Arthur and Toni Rembe Rock Center for Corporate Governance, a fellow and the immediate past Faculty Director and Professor of the Practice at Stanford Law School. Mr. Siciliano is a noted authority on matters related to executive compensation and corporate governance. Mr. Siciliano was retained to (i) review our historical compensation practices, (ii) advise the Compensation Committee on compensation standards and trends, (iii) assist in the implementation of compensation policies and programs, and (iv) review recommendations from management on compensation matters. All work completed by Mr. Siciliano is subject to the approval of the Compensation Committee. Mr. Siciliano's role includes providing independent advice and counsel to the Compensation Committee. The Compensation Committee does not delegate authority to its outside advisor or to other parties.

In retaining Mr. Siciliano, the Compensation Committee separately considered the six factors set forth in Section 10C-1(b)(4)(i) through (vi) of the Exchange Act and, based on such consideration, determined that the engagement of Mr. Siciliano did not raise any conflicts of interest.

No Formal Peer Group Analysis

We believe we have structured a fair and competitive compensation package for our executive officers. The Board and the Compensation Committee believe that, due to the unique and rapidly evolving nature of our business and particularly in light of the changes undertaken in 2020, no practical robust cohort of peer companies was available to use as a formal peer group for our Company. For this reason, we did not undertake a formal peer group analysis of executive compensation or target compensation to specific benchmarks against any peer group companies. This approach may change in the future as our Company more clearly defines and refines its operational scope. However, in the meantime and with special attention in 2020, the Compensation Committee regularly monitors certain compensation practices at a variety of similarly situated or similarly structured companies, which often vary, and does discuss compensation data for companies with which it believes we compete for executive talent. The Compensation Committee also uses information gathered from other sources, including from members of the Compensation Committee, human resources staff, and our outside compensation consultant in assessing and making compensation decisions.

Establishing Total Direct Remuneration

Total direct remuneration is the sum of base salary, annual incentive awards, long-term equity incentive awards, and other benefits. A major portion of each executive officer's remuneration is established by performance-based incentives, which require achievement of performance objectives and goals as a condition to earning annual incentive awards, and long-term equity incentive awards, the value of which depends on our stock price upon vesting or exercise. The at-risk portion of total direct remuneration provides increased pay for higher levels of corporate and/or business sector performance.

In setting each executive officer's total direct remuneration opportunity, the Compensation Committee takes into account factors such as the responsibilities, experience, performance, contributions, and service of the executive. We do not set total direct remuneration or the component parts at levels to achieve a mathematically precise market position. In determining executive compensation, the Compensation Committee reviews all components of each executive officer's total compensation, including retirement benefits and the costs of any perquisites received, to ensure such compensation meets the goals of the program. As a part of this review, the Compensation Committee considers corporate performance and the recommendations of senior management. The Compensation Committee also takes into consideration individual and overall company operating performance to ensure executive compensation reflects past performance as well as future potential and, we believe, adequately differentiates among employees, based on the scope and complexity of the employee's job position, individual performance and experience and our ability to pay. The Compensation Committee reviews annually each executive officer's performance prior to considering changes in compensation. The individual performance of each executive officer is evaluated in light of our overall performance and non-financial goals and strategic objectives approved by the Compensation Committee and the Board. The Compensation Committee and the Board believe that the competitive environment, including for executive talent, is dynamic and evolving. For this reason, while the Compensation Committee believes the total compensation for each of the executive officers is reasonable and appropriate, the Compensation Committee continues to actively consider methods to further improve the effectiveness of our approach to executive compensation.

Consideration of Say-on-Pay Vote Results

The Board has determined to provide our shareholders the opportunity to vote each year to approve, on an advisory basis, the compensation of our named executive officers as disclosed in our Proxy Statement ("say-on-pay"). As an advisory vote, the vote on executive compensation is non-binding on the Board and should not be construed as (i) overruling a decision by the Board, (ii) creating or implying any change to our fiduciary duties, or (iii) creating or implying any additional fiduciary duties for the Board. Although the vote is non-binding, the Board and the Compensation Committee value the opinions of our shareholders, and consider our shareholders' views when making executive compensation decisions, as they deem appropriate.

At our 2020 Annual Meeting of Shareholders, we held a non-binding shareholder say-on-pay vote. Our shareholders approved our 2020 executive compensation proposal, with 97.1% of the shares that were cast on the proposal voted in favor of the say-on-pay resolution. We did not make any significant changes in our policies or programs in response to this vote. However, we will continue to consider the outcome of the say-on-pay vote for future compensation decisions for our executive officers.

Other Executive Compensation Practices

Anti-Hedging Policy

To ensure alignment of the interests of our shareholders, directors and executive officers, our Insider Trading Policy does not permit directors, officers, or employees to engage in short-term or speculative transactions involving our securities, including short sales, publicly traded options, or hedging of our securities.

Compensation Recovery Policies

It is the Board's policy that in the event the Board determines that a significant restatement or correction of our financial results or other metrics is required for the prior fiscal year for which audited financial statements have been completed, and, had the results or metrics been properly calculated initially, our officers would have received less compensation, the Board has the authority to obtain reimbursement of any portion of any performance based compensation paid or awarded, whether cash or equity based, to the officers and to other employees responsible for

accounting errors resulting in the restatement or correction that is greater than would have been paid or awarded calculated based upon the restated or corrected financial results or metrics. Further, it is the policy of the Board to seek recoupment in all instances where Section 304 of the Sarbanes-Oxley Act of 2002 requires us to seek recoupment.

United States Federal Income Tax Limits on Deductibility

Prior to the enactment of the Tax Act, which was signed into law on December 22, 2017, a public corporation's covered employees included its CEO and three other most highly compensated executive officers (other than the chief financial officer), and certain "qualified performance-based compensation" was excluded from the \$1 million deduction limit. The Tax Act made certain changes to Section 162(m), effective for taxable years beginning after December 31, 2017, including, among others, expanding the definition of "covered employee" to include the chief financial officer and repealing the qualified performance-based compensation exception, subject to a transition rule for remuneration provided pursuant to a written binding contract in effect on November 2, 2017, and which was not modified in any material respect on or after that date. Our policy is to qualify compensation paid to our executive officers for deductibility for federal income tax purposes to the extent feasible. However, to retain highly skilled executives and remain competitive with other employers, the Compensation Committee may authorize compensation that would not be deductible under Section 162(m) of the Code or otherwise if it determines that such compensation is in the best interests of us and our shareholders.

COMPENSATION AND HUMAN CAPITAL MANAGEMENT COMMITTEE REPORT

The Compensation and Human Capital Management Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and, based on such review and discussion, the Compensation and Human Capital Management Committee recommended to the Board that it be included in this Proxy Statement.

THE COMPENSATION AND HUMAN CAPITAL MANAGEMENT COMMITTEE

- James S. Turley, Chair
- Fred Hassan
- Jeffrey B. Kindler

Compensation Risk Assessment

As part of its oversight of our executive compensation program, the Compensation Committee considers the impact of our executive compensation program, and the incentives created by the compensation awards that it administers, on our risk profile. In addition, the Compensation Committee reviews our compensation policies and procedures, including the incentives that they create and factors that may reduce the likelihood of excessive risk-taking, to determine whether they present a significant risk to us. The Compensation Committee concluded that our compensation programs are designed with the appropriate balance of risk and reward in relation to our overall business strategy and that the balance of compensation elements discourages excessive risk taking. The Compensation Committee, therefore, determined that the risks arising from our compensation policies and practices for employees are not reasonably likely to have a material adverse effect on us. The Compensation Committee will continue to consider compensation risk implications while deliberating the design of our executive compensation programs. In its discussions, the Compensation Committee considered the attributes of our programs, including:

- appropriate pay philosophy in light of our business model;
- balance with respect to the mix of cash and equity compensation, and measures of performance against both annual and multiyear standards;
- long-term incentives linked to stock price performance;
- long-term incentives generally have multiyear vesting to ensure a long-term focus and appropriate balance against short-term goals;

- independent Compensation Committee oversight, with Compensation Committee discretion to reduce incentives based on subjective evaluation of individual performance; and
- anti-hedging policies.

SUMMARY COMPENSATION TABLE

The following table sets forth the compensation paid to or accrued by our named executive officers during the fiscal years ended December 31, 2020, 2019 and 2018.

Name and Principal Position	Year	Salary (\$)	Bonus (1)(\$)	Stock Awards (2)(\$)	Option Awards (3)(\$)	All Other Compensation(4) (\$)	Total (\$)
Helen Sabzevari	2020	1,000,000	750,002	4,115,000	14,529,600	15,314	20,409,916
Chief Executive Officer	2019	500,000	—	950,017	—	15,090	1,465,107
	2018	500,000	100,000	2,108,179	—	14,625	2,722,804
Randal Kirk	2020	—	—	716,259	187,499	—	903,758
Executive Chairman	2019	—	—	2,067,617	—	—	2,067,617
	2018	—	100,000	1,956,450	—	—	2,056,450
Rick Sterling	2020	515,000	—	570,000	—	32,064	1,117,064
Chief Financial Officer	2019	515,000	—	950,006	—	31,840	1,496,846
	2018	466,250	100,000	526,179	—	31,220	1,123,649
Donald P. Lehr	2020	575,000	201,254	570,000	—	31,957	1,378,211
Chief Legal Officer	2019	575,000	—	950,006	—	31,733	1,556,739
	2018	575,000	100,000	526,179	—	31,234	1,232,413
Jeffrey Perez	2020	500,000	175,006	570,000	—	30,716	1,275,722
Senior Vice President, IP Affairs	2019	500,000	—	950,006	—	30,492	1,480,498
	2018	500,000	100,000	526,179	—	29,887	1,156,066

(1) Represents discretionary cash bonuses paid in 2021 for services performed in 2020.

(2) Represents the grant date fair value computed by us for financial reporting purposes, computed in accordance with ASC Topic 718. Starting in November 2015 and through March 2020, Mr. Kirk received \$200,000 per month payable in fully vested shares of our common stock, which are subject to a three year lock-up on resale. For the years ended December 31, 2020, 2019, and 2018, Mr. Kirk received 155,422, 401,120 and 187,749 shares of common stock, respectively, pursuant to the RSU Agreement. The three year lock-up on resale results in a discount to the monthly value for financial reporting purposes. Additionally, Mr. Kirk received compensation in 2020 for his service as Executive Chairman of the Board. This column does not include for 2020 the grant date fair value of RSUs granted as part of the incentive award for performance in 2020 because the awards were granted in 2021. However, it does include for 2020 and 2019 the grant date fair value of RSUs granted as part of the incentive award for performance in 2019 and 2018.

(3) Represents the grant date fair value computed by us for financial reporting purposes, computed in accordance with ASC Topic 718. For a full description of the assumptions we use in computing these amounts, see Note 2 to our consolidated financial statements for the year ended December 31, 2020, which is included in our 2020 Annual Report. The actual value a named executive officer may receive depends on market prices and there can be no assurance that the amounts reflected in the Option Awards column will actually be realized. No gain to a named executive officer is possible without an appreciation in stock value after the date of grant.

(4) The amounts in this column are further detailed in the “All Other Compensation Table for 2020.”

ALL OTHER COMPENSATION TABLE FOR 2020

The table below reflects the types and dollar amounts of perquisites, additional compensation, and other personal benefits provided to the named executive officers during 2020. For purposes of computing the dollar amounts of the items listed below, we used the actual out-of-pocket costs to us of providing the perquisite or other personal benefit to the named executive officer. The named executive officers paid any taxes associated with these benefits without reimbursement from us.

Name	Company- Paid Welfare and Life Benefits Premiums (\$)	401(k) Plan Company Contributions (\$)	Total (\$)
Helen Sabzevari	6,764	8,550	15,314
Randal Kirk	0	0	0
Rick Sterling	23,514	8,550	32,064
Donald P. Lehr	23,407	8,550	31,957
Jeffrey Perez	22,166	8,550	30,716

GRANTS OF PLAN-BASED AWARDS FOR 2020

The following table presents information regarding grants of plan-based awards to the named executive officers during the fiscal year ended December 31, 2020.

Name	Grant Date	All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards\$(1)
Helen Sabzevari	1/5/2020	—	1,500,000	5.95	5,753,400
	1/5/2020	—	1,500,000	11.90	4,428,750
	1/5/2020	—	1,500,000	17.85	4,347,450
	1/5/2020	500,000	—	—	2,975,000
	3/23/2020	500,000(2)	—	—	1,140,000
Randal Kirk	9/24/2020	—	74,656(3)	3.50	184,799
	9/24/2020	53,571(3)	—	—	187,499
	—	—	—	—	—
Rick Sterling	3/23/2020	250,000(2)	—	—	570,000
Donald P. Lehr	3/23/2020	250,000(2)	—	—	570,000
Jeffrey Perez	3/23/2020	250,000(2)	—	—	570,000

(1) Represents the grant date fair value of the equity awards determined in accordance with ASC Topic 718.

(2) Award was granted for performance in 2019.

(3) Represents an award granted to Mr. Kirk for his service as Executive Chairman of the Board.

OUTSTANDING EQUITY AWARDS AT 2020 FISCAL YEAR END

The following table sets forth specified information concerning unexercised stock options and unvested RSUs held by each of the named executive officers as of December 31, 2020.

Name	Grant Date	Option Awards				Stock Awards	
		Number of Securities Underlying Unexercised Options: Exercisable	Number of Securities Underlying Unexercised Options: Unexercisable(1)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock Not Vested (#)	Market Value of Shares or Units of Stock Not Vested (\$)
Helen Sabzevari	7/17/2017	112,500	37,500	22.83	7/17/2027	—	—
	1/2/2018	—	—	—	—	19,531	199,216
	3/28/2018	—	—	—	—	25,000	255,000
	1/4/2019	—	—	—	—	10,331	105,376
	1/25/2019	—	—	—	—	42,668	435,214
	1/5/2020	—	—	—	—	500,000	5,100,000
	1/5/2020	—	1,500,000	5.95	1/5/2030	—	—
	1/5/2020	—	1,500,000	11.90	1/5/2030	—	—
	1/5/2020	—	1,500,000	17.85	1/5/2030	—	—
Randal Kirk	1/4/2019	—	—	—	—	10,331	105,376
	9/24/2020	—	—	—	—	53,571	546,424
	9/24/2020	74,656	—	3.50	9/24/2030	—	—
Rick Sterling	3/20/2014	204,472	—	29.56	3/20/2024	—	—
	2/2/2017	168,750	56,250	20.94	2/2/2027	—	—
	1/2/2018	—	—	—	—	19,531	199,216
Donald Lehr	1/4/2019	—	—	—	—	56,818	579,544
	7/1/2011	47,509	—	6.85	7/1/2021	—	—
	3/20/2014	207,855	—	29.56	3/20/2024	—	—
	2/2/2017	168,750	56,250	20.94	2/2/2027	—	—
	1/2/2018	—	—	—	—	19,531	199,216
Jeffrey Perez	1/4/2019	—	—	—	—	56,818	579,544
	8/25/2014	202,733	—	19.52	8/25/2024	—	—
	2/2/2017	168,750	56,250	20.94	2/02/2027	—	—
	1/2/2018	—	—	—	—	19,531	199,216
	1/4/2019	—	—	—	—	56,818	579,544

(1) Each award vests in four equal annual installments beginning on the anniversary of the grant date.

STOCK AWARDS VESTED FOR 2020

The following table sets forth specified information concerning stock vesting for each of the named executive officers during the fiscal year ended December 31, 2020.

Name	Stock Awards	
	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)(1)
Helen Sabzevari	9,766	57,717
	14,223	84,627
	3,444	20,492
	14,340	48,756
	25,000	114,500
	500,000	1,300,000
Randal Kirk(2)	33,223	154,487
	45,571	172,714
	76,628	260,535
	21,428	74,998
Rick Sterling	9,766	57,717
	18,940	112,693
	14,340	48,756
	175,000	441,000
	25,000	112,250
	25,000	132,000
	25,000	179,250

Name	Stock Awards	
	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)(1)
Donald P. Lehr	9,766	57,717
	18,940	112,693
	14,340	48,756
	175,000	441,000
	25,000	112,250
	25,000	132,000
Jeffrey Perez	9,766	57,717
	18,940	112,693
	14,340	48,756
	175,000	441,000
	25,000	112,250
	25,000	132,000
	25,000	179,250

(1) The amounts in the “Value Realized on Vesting” column are calculated based on the closing market price per share of our common stock on the date of vesting. This calculation differs from the grant date fair value of the equity awards determined in accordance with ASC Topic 718.

(2) During 2020, Mr. Kirk received a total of 155,422 fully vested shares of common stock pursuant to his RSU Agreement.

POTENTIAL PAYMENTS UPON TERMINATION OR A CHANGE IN CONTROL

Employment Agreements with Named Executive Officers

Messrs. Sterling, Lehr and Perez are parties to an employment agreement with the Company entered into in April 2019 that provide for certain severance rights upon termination “without Cause” or resignation by the executive officer for “Good Reason.” Pursuant to the terms of these employment agreements, subject to the execution of a release of claims, the named executive officer would be entitled to receive (i) payment equivalent to 18 months of his base pay, and (ii) the named executive officer’s expected cost of COBRA premiums for continued medical coverage for up to 18 months.

“Cause” under these employment agreements means (i) material failure to observe and comply with any of our material written policies to our satisfaction; (ii) continued failure to substantially perform material duties; (iii) uncured willful failure to carry out, or comply with, in any material respect, any lawful and reasonable written directive; (iv) commission of any act or omission that results in, or that may reasonably be expected to result in, a conviction, plea of no contest or imposition of unadjudicated probation for any felony or any crime involving moral turpitude; (v) the employee’s incarceration; (vi) commission of any act of dishonesty, illegal conduct, fraud, embezzlement, misappropriation, material misconduct, or breach of fiduciary duty either against us or our affiliates or that is reasonably expected to be materially injurious to us or our affiliates; or (vii) uncured material or willful breach of any agreement with us.

“Good Reason” under these employment agreements means (i) a material diminution in the employee’s authority, duties or responsibilities; (ii) a material reduction in the employee’s base salary (other than a general reduction in compensation applying to other similarly situated employees); or (iii) the relocation of the primary office from which the employee is required to work to a location more than 50 miles from the current office location where the employee primarily works, which relocation increases the employee’s one-way commute.

Employment Agreement with Dr. Sabzevari

Pursuant to Dr. Sabzevari's Employment Agreement, in the event Dr. Sabzevari's employment is terminated by the Company without Cause or by Dr. Sabzevari for Good Reason, subject to her execution of a release of claims, Dr. Sabzevari would be eligible to receive (i) an amount equal to 18 months of her then-current base annual salary (or, in the event of a material reduction of Dr. Sabzevari's base salary giving rise to Good Reason, her pre-reduction base salary), (ii) a pro rata portion of her maximum annual performance bonus for the calendar year of her termination plus any annual bonus for the calendar year prior to the date of her termination of employment that would have been earned but for her termination date occurring prior to the date of payment of such bonus, (iii) full acceleration of any unvested portion of the Initial Equity Grants, (iv) full acceleration of any unvested portion of the Performance Equity Grants in the event such termination occurs within 12 months of a Change in Control, as defined our Amended and Restated 2013 Omnibus Incentive Plan (the "2013 Plan") (see "Equity Award Provisions" below), and (v) if elected, payment or reimbursement for COBRA healthcare continuation coverage for up to 18 months following the termination date.

Regardless of the reason of termination, under the Employment Agreement Dr. Sabzevari will be entitled to receive (i) any earned, but unpaid, base salary through the date of termination, (ii) a cash payout of accrued but unused vacation, and (iii) any amounts owed for reimbursement of expenses pursuant to applicable Precigen reimbursement policies.

"Cause" under Dr. Sabzevari's Employment Agreement has generally the same meaning as "Cause" in the employment agreements with the other named executive officers, except that a continued failure to substantially perform material duties does not constitute cause and that only material acts of dishonesty, illegal conduct, fraud, embezzlement, misappropriation, material misconduct, or breach of fiduciary duty constitute Cause.

"Good Reason" under Dr. Sabzevari's Employment Agreement has generally the same meaning as "Good Reason" in the employment agreements with the other named executive officers, except that a reduction in her base salary of more than 5%, other than a general reduction for similarly situated employees not to exceed 10%, constitutes "Good Reason."

Equity Award Provisions

To ensure that we will have the continued dedicated service of certain executives, including some of our named executive officers, notwithstanding the possibility, threat, or occurrence of a Change in Control, our stock option and RSU award agreements with our named executive officers contain change in control provisions. Specifically, these agreements provide that in the event a Change in Control occurs and no provision is made for the continuance, assumption or substitution of the option award by the Company or its successor in connection with the Change in Control, then the award will vest in full, to the extent not already vested, on the earlier of the date of the Change in Control or the date the award is to be terminated in connection with the Change in Control, provided the executive has remained continuously employed by the Company or any affiliate from the grant date until such time.

The Compensation Committee believes that the Change in Control provisions in our 2013 Plan and our stock option awards serve the best interests of our Company and our shareholders by ensuring that if a Change in Control is ever under consideration, our executives are able to perform their duties and responsibilities and advise the Board about the potential transaction in the best interests of shareholders, without being unduly influenced by the distracting uncertainty and risk associated with a Change in Control, such as fear of the economic consequences of losing their equity awards as a result of a Change in Control.

A "Change in Control" is defined in the 2013 Plan to mean generally the occurrence of any of the following events:

- (a) the accumulation in any number of related or unrelated transactions by any person of beneficial ownership (as such term is used in Rule 13d-3 promulgated under the Exchange Act) of more than 50% of the combined voting power of our voting stock; provided that for purposes of this subsection (a), a Change in Control will not be deemed to have occurred if the accumulation of more than 50% of the voting power of our voting stock results from any acquisition of voting stock (i) directly from the Company that is approved by the Incumbent Board (as defined in the 2013 Plan), (ii) by the Company, (iii) by any employee benefit plan (or related trust) sponsored or maintained by us or any affiliate, or (iv) by any person pursuant to a merger, consolidation, reorganization or other transaction (a "Business Combination") that would not cause a Change in Control under subsection (b), (c) or (d) below;

- (b) consummation of a Business Combination, unless, immediately following that Business Combination, (i) all or substantially all of the persons who were the beneficial owners of our voting stock immediately prior to that Business Combination beneficially own, directly or indirectly, more than 50% of the then outstanding shares of common stock and more than 50% of the combined voting power of the then outstanding voting stock entitled to vote generally in the election of directors of the entity resulting from that Business Combination (including, without limitation, an entity that as a result of that Business Combination owns the Company or all or substantially all of our assets either directly or through one or more subsidiaries) in substantially the same proportions relative to each other as their ownership, immediately prior to that Business Combination, of our voting stock;
- (c) a sale or other disposition of all or substantially all of our assets, except pursuant to a Business Combination that would not cause a Change in Control under subsection (b) above or (d) below;
- (d) approval by the shareholders of a complete liquidation or dissolution of the Company, except pursuant to a Business Combination that would not cause a Change in Control under subsection (b) and (c) above;
- (e) the acquisition by any person, directly or indirectly, of the power to direct or cause the direction of our management and policies (i) through the ownership of securities which provide the holder with such power, excluding voting rights attendant with such securities, or (ii) by contract; provided that a Change in Control will not be deemed to have occurred if such power was acquired (x) directly from the Company in a transaction approved by the Incumbent Board, (y) by an employee benefit plan (or related trust) sponsored or maintained by the Company or any affiliate or (z) by any person pursuant to a Business Combination that would not cause a Change in Control under subsections (b), (c) or (d) above; or
- (f) During any period of two consecutive years, the Incumbent Board ceases to constitute a majority of the Board.

Notwithstanding the foregoing, a “Change in Control” does not include any accumulation of beneficial ownership or any Business Combination pursuant to which more than 50% of the beneficial ownership of the combined voting power of our voting stock is owned by (i) Randal J. Kirk, his spouse, his descendants and the spouses of his descendants, (ii) trusts and other entities established generally for the benefit of Randal J. Kirk, his spouse, his descendants and the spouses of his descendants, (iii) Third Security Staff 2001 LLC and any related funds, investors or entities, and/or (iv) any entities established by any of the foregoing.

In addition, our stock option and RSU award agreements with our named executive officers provide for the full vesting of the awards in the event of termination by reason of the named executive officer’s death or disability.

Potential Payments

The following table shows the potential payments upon termination without cause or for good reason by the executive officer, a change in control of the Company, incapacity or death for the named executive officers based on agreements and plans in effect as of December 31, 2020. The amounts in this table are calculated assuming the triggering event occurred on December 31, 2020 and all executives were paid in a lump sum payment.

		Termination Without Cause or for Good Reason (Prior to a Change in Control) (\$)	Termination Without Cause or for Good Reason (Within 12 Months of a Change in Control) (\$)	Change in Control (No Termination) (1) (\$)	Incapacity(2) (\$)	Death(3) (\$)
Helen Sabzevari	Accelerated Equity	—	12,469,806	12,469,806	12,469,806	12,469,806
	Severance Payment	1,500,000	1,500,000	—	—	—
	Prorated Bonus	1,500,000	1,500,000	—	—	—
	Benefit Plans	11,036(4)	11,036(4)	—	—	—
	Total	3,011,036	15,480,842	12,469,806	12,469,806	12,469,806
Randal Kirk	Accelerated Equity	—	—	651,800	—	—
	Benefit Plans	—	—	—	—	—
	Total	—	—	651,800	—	—
Rick Sterling	Accelerated Equity	—	—	778,760	778,760	778,760
	Severance Payment	772,500	772,500	—	—	—
	Benefit Plans	46,781(4)	46,781(4)	—	—	—
	Total	819,281	819,281	778,760	778,760	778,760
Donald P. Lehr	Accelerated Equity	—	—	778,760	778,760	778,760
	Severance Payment	862,500	862,500	—	—	—
	Benefit Plans	46,588(4)	46,588(4)	—	—	—
	Total	909,088	909,088	778,760	778,760	778,760
Jeffrey Perez	Accelerated Equity	—	—	778,760	778,760	778,760
	Severance Payment	750,000	750,000	—	—	—
	Benefit Plans	41,556(4)	41,556(4)	—	—	—
	Total	791,556	791,556	778,760	778,760	778,760

- (1) In the event of a change in control, as described above, unvested stock options and RSUs vest immediately unless provision is made for the continuance, assumption, or substitution of the option award by the Company or its successor. For purposes of this table, we assume that no such provision has been made. This column reflects the value of the accelerated vesting, which is calculated (i) for stock options by multiplying the number of shares subject to accelerated vesting under outstanding stock options by the difference between \$10.20 (which was the closing market price per share of our common stock on December 31, 2020, the last trading day of fiscal 2020) and the per-share exercise price of the applicable accelerated stock option and (ii) for RSUs by multiplying the number of shares subject to accelerated vesting under outstanding RSUs by \$10.20.
- (2) Other than Mr. Kirk, the named executive officer would also be eligible for benefits payable under the long-term disability insurance policy maintained by the Company.
- (3) Other than with respect to Mr. Kirk, the named executive officer's heirs would also be eligible for benefits under the life insurance policy maintained by the Company.
- (4) Includes the full premium cost of COBRA healthcare continuation coverage payable for 18 months following the executive's termination, assuming that the executive does not become eligible to receive healthcare coverage from a subsequent employer or otherwise becomes ineligible for COBRA healthcare continuation coverage during this period.

EQUITY COMPENSATION PLAN INFORMATION

The following table sets forth certain information as of December 31, 2020 with respect to securities that may be issued pursuant to outstanding awards granted under our 2008 Equity Incentive Plan (the “2008 Plan”), the 2013 Plan, and the 2019 Incentive Plan for Non-Employee Service (the “2019 Plan”) and authorized for issuance under the 2013 Plan and the 2019 Plan. No new awards may be granted under the 2008 Plan. Each of these equity compensation plans was adopted with the approval of our shareholders.

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 shareholders	12,983,608(1)	\$ 15.53	9,487,634(2)
Equity compensation plans not approved by shareholders	—	—	—
Total	<u>12,983,608</u>	<u>—</u>	<u>9,487,634</u>

(1) Includes 11,255,896 outstanding stock options and 1,727,712 outstanding RSUs.

(2) Our 2013 Plan, in addition to being available for future issuance upon exercise of stock options and vesting of RSUs that have been or may be granted after December 31, 2020, and our 2019 Plan, each provide for the issuance of SARS, restricted stock awards, other stock-based awards, incentive awards, and dividend equivalents.

CEO PAY RATIO

As required by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and Item 402(u) of Regulation S-K (“Item 402(u)”), we are providing the following information about the relationship between the annual total compensation of our employees and the annual total compensation of Helen Sabzevari, Ph.D., our CEO during 2020. The pay ratio included in this information is a reasonable estimate calculated in a manner consistent with Item 402(u). Because Item 402(u) affords a large degree of flexibility in calculating the CEO pay ratio by allowing the use of reasonable estimates, assumptions and methodologies, the pay ratio disclosed by us below may not be comparable to pay ratio disclosures presented by other companies.

For 2020, our last completed fiscal year:

- as reported in the Summary Compensation Table, the annual total compensation of our CEO was \$20,409,916 (see above for details on this calculation); and
- the annual total compensation of our median employee (other than our CEO) was \$74,469.

Based on this information, for 2020, the ratio of the annual total compensation of our CEO to the median of the annual total compensation of all employees was 274 to 1. See below for our supplemental pay ratio for 2020.

In accordance with Item 402(u), we were required to recalculate our median employee as we used the same median employee in 2017, 2018, and 2019. Additionally there was a significant change to our employee population resulting from a 52.5% reduction in our employee population from December 31, 2019 to December 31, 2020. Our pay ratio may fluctuate from year-to-year due to changes in the median employee’s or our CEO’s compensation. We believe putting into context how our median employee was identified highlights why that employee’s compensation and the resulting pay ratio, and year-over-year changes thereto, should not be compared on an “apples-to-apples” basis.

Consistent with our methodology disclosed in our 2019 and 2018 proxy statements, to identify the median of the annual total compensation of all our employees, as well as to determine the annual total compensation of the median employee, the methodology and the material assumptions, adjustments, and estimates used were as follows:

Determination Date

We selected December 31, 2020 as the date from which to determine our total employee population and gather pay data.

Employee Population

As of December 31, 2020, according to internal payroll records, our total employee population, excluding our CEO, consisted of approximately 476 individuals working at our Company or within our consolidated subsidiaries on either a full-time or part-time basis. Out of these approximate 476 individuals, 94% are located in North America and 6% are located in Europe.

Methodology

To identify the median employee, a listing was prepared of our employee population as of December 31, 2020. We annualized the compensation of any permanent employees, employed either part-time or full-time, who were employed by us for less than the full fiscal year. Additionally, we converted non-USD currency to USD using the Oanda conversion rate as of December 16, 2020. We then compared the actual cash compensation received during 2020 for those employees, consisting of base salary amounts and annual incentive awards as reflected by internal payroll records. We identified our median employee using this compensation measure, which was consistently applied to all of our employees across the employee population. Using this methodology, we determined that the median employee was a full-time, salaried employee located in the United States.

Annual Total Compensation

With respect to the annual total compensation of the median employee, we identified and calculated the elements of such employee's compensation for 2020 in accordance with the requirements of Item 402(c)(2)(x) of Regulation S-K. This calculation is the same calculation used for our named executive officers as set forth in the Summary Compensation Table earlier in this Proxy Statement. With respect to the annual total compensation of our CEO, we used the amount reported in the "Total" column of the Summary Compensation Table herein.

Supplemental Pay Ratio

We understand that the CEO pay ratio is intended to provide greater transparency to annual CEO pay and how it compares to the pay of the median employee. As discussed in the Compensation Discussion and Analysis herein, Dr. Sabzevari received special RSU grants on January 5, 2020 with an aggregate grant date fair value of \$17,504,600 as compensation relating to her promotion to CEO. Given the nature of this award as a special, one-time grant in recognition of her promotion, we believe that providing a supplemental pay ratio comparing Dr. Sabzevari's annual total compensation, excluding the value of these RSUs, to the pay of our median employee reflects a more representative, apples-to-apples comparison. The resulting supplemental CEO pay ratio is 39 to 1.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a description of transactions since January 1, 2020 to which we have been a party, in which the amount involved exceeded or will exceed \$120,000, and in which any of our directors, executive officers or beneficial owners of more than 5% of our voting securities, or affiliates or immediate family members of any of our directors, executive officers or beneficial owners of more than 5% of our voting securities, had or will have a direct or indirect material interest.

We have historically been owned, funded, and managed by Randal Kirk, our Executive Chairman and former CEO, and affiliates of Mr. Kirk, for the purpose of developing our synthetic biotechnology business. As a result, we have engaged in a variety of financial and operational transactions with Mr. Kirk and these affiliates. In accordance with the requirements of the SEC, we describe below all such transactions in which we have engaged since January 1, 2020.

We believe that each of these transactions was on terms no less favorable to us than terms we could have obtained from unaffiliated third parties. Moreover, all of these transactions have been approved by a majority of the independent and disinterested members of the Board. It is our intention to ensure that all future transactions, if any, between us and our officers, directors, principal shareholders and their affiliates or family members, are approved by the Audit Committee or a majority of the independent and disinterested members of the Board, and are on terms no less favorable to us than those that we could obtain from unaffiliated third parties.

Greenberg Traurig LLP

Mr. Alvarez, a member of the Board, is the Senior Chairman of the international law firm Greenberg Traurig. Greenberg Traurig provides legal services to us from time to time, for which it has received and may continue to receive customary fees. Greenberg Traurig received an aggregate of \$1,350,502 in fees in connection with 2020 legal services. As the Senior Chairman, Mr. Alvarez does not participate in such services and does not materially benefit from the engagement. As such, and in consideration of the fact that the amount received by Greenberg Traurig does not exceed 5% of Greenberg's Traurig's consolidated gross revenues for 2020, the Board has determined that this relationship is not material and that it does not impair Mr. Alvarez's independence.

Transactions with Third Security, LLC and Affiliates

Through December 2019, the Company was party to a Services Agreement ("Services Agreement") with Third Security pursuant to which Third Security provided the Company with certain professional, legal, financial, administrative, and other support services necessary to support the Company and its Executive Chairman. Following the expiration of the Services Agreement in 2020, the Company entered into a new agreement with Third Security under which the Company reimburses Third Security for certain tax-related services performed by Third Security as requested by the Company. The Company also reimburses Third Security for certain out-of-pocket expenses incurred on the Company's behalf prior to and after the expiration of the Services Agreement under a separate agreement. The total amount of expenses reimbursed by the Company for the year ended December 31, 2020, was approximately \$158,852.

The Company also subleases certain administrative offices to Third Security. The significant terms of the lease mirror the terms of the Company's lease with the landlord, and the Company recorded sublease income of \$83,000, \$89,000, and \$89,000 for the years ended December 31, 2020, 2019 and 2018, respectively.

TS Biotechnology Transaction

On January 1, 2020, we entered into a Stock and Asset Purchase Agreement (the "Stock and Asset Purchase Agreement") with TS Biotechnology Holdings, LLC ("TS Biotechnology"), a Virginia limited liability company managed by Third Security, LLC ("Third Security"), pursuant to which we agreed to sell, on the terms and subject to the conditions specified therein, the majority of our bioengineering assets to TS Biotechnology (the "TS Biotechnology Transaction"). The assets included in the TS Biotechnology Transaction included all of the equity interests that we held in (i) Blue Marble AgBio LLC, a Delaware limited liability company, (ii) ILH Holdings, Inc., a Delaware corporation, (iii) Intrexon Produce Holdings, Inc., a Delaware corporation, (iv) Intrexon UK Holdings Inc., a Delaware corporation, (v) Oragenics, Inc., a Florida corporation, and (vi) SH Parent, Inc., a Delaware corporation, as well as our former domain name, dna.com, for an aggregate purchase price of \$53 million and certain contingent payment rights. On January 31, 2020, the sale was completed. The Stock and Asset Purchase Agreement was approved by the independent members of the Board after a unanimous recommendation of the independent special committee of the Board, following a process to consider strategic alternatives for the Corporation's assets, and with the advice of independent financial and legal advisors.

Also on January 1, 2020, we entered into a subscription agreement (the “Subscription Agreement”) with TS Biotechnology, pursuant to which, upon the terms and subject to the conditions set forth therein, TS Biotechnology purchased 5,972,696 shares of our common stock for \$35 million. The closing under the Subscription Agreement was completed on February 3, 2020.

Mr. Kirk and shareholders affiliated with him, as of March 31, 2021, beneficially own approximately 39.6% of our voting stock. Mr. Kirk currently serves as Chairman and Senior Managing Director of Third Security and owns 100% of the equity interests in Third Security. Third Security is the manager to certain funds that own shares of our common stock and therefore may be deemed to have beneficial ownership in us of approximately 30.0 %.

Genopaver

Effective March 2013, we entered into an exclusive channel collaboration (“ECC”) with Genopaver LLC (“Genopaver”). Genopaver was a limited liability company formed for the purpose of entering into the ECC and developing and commercializing products identified through the ECC and was an affiliate of Third Security. Upon execution of the ECC, we received a technology access fee of \$3 million as upfront consideration. We were reimbursed for research and development services as provided for in the ECC and were entitled to a royalty on the gross profits of product sales from a product developed from the ECC. We are no longer party to the Genopaver ECC, having sold our interests in the ECC to TS Biotechnology in January 2020 as part of the TS Biotechnology Transaction.

Persea Bio

Effective December 2014, we entered into an ECC with Persea Bio, LLC (“Persea Bio”), a limited liability company formed for the purpose of entering into the ECC and developing and commercializing products identified through the ECC. Persea Bio is an affiliate of Third Security. Upon effectiveness of the ECC, we received a technology access fee of \$5 million as upfront consideration. We were reimbursed for research and development services as provided for in the ECC and were entitled to a royalty on the gross profits of product sales from a product developed from the ECC. We are no longer party to the Persea Bio ECC, having sold our interests in the ECC to TS Biotechnology in January 2020 as part of the TS Biotechnology Transaction.

Harvest Intrexon Enterprise Fund I LP

In September 2018, we, through our wholly owned subsidiary ActoBio, issued \$30 million of convertible promissory notes to Harvest Intrexon Enterprise Fund I LP (“Harvest”), an investment fund in which affiliates of Mr. Kirk have an approximate 20% ownership interest, in order to acquire Harvest’s ownership in CRS Bio, Inc., Genten Therapeutics, Inc., and Relieve Genetics, Inc. (collectively, the “Harvest entities”). The notes, which accrued interest at 3.0% compounded annually, matured in September 2020. We issued 6,293,402 shares of our common stock upon conversion of the outstanding principal balance and interest at maturity.

In December 2020, we entered into an agreement with Harvest to resolve certain matters related to the parties’ contractual and equity relationships and to settle all claims made in connection with an arbitration proceeding. Pursuant to the agreement, we issued 2,117,264 shares of our common stock to Harvest in consideration of (i) the termination of certain collaboration agreements with Harvest’s affiliated entities; (ii) the return of our technology rights that had been licensed to these entities; (iii) the commitment of Harvest to take reasonable commercial efforts to transfer its membership interests in Intrexon Energy Partners II; and (iv) mutual irrevocable and unconditional releases of claims.

NRM VI Holdings I, LLC and NRM VII Holdings I, LLC

On December 17, 2020, NRM VI Holdings I, LLC, a fund that was managed by Third Security prior to its wind down in December 2020, distributed 13,340,645 shares of our common stock in connection with a pro rata liquidation in accordance with the terms of its Amended and Restated Limited Liability Company Agreement dated December 21, 2009. In connection with such pro rata liquidation, 11,081,190 of such shares were distributed to entities under Mr. Kirk’s common control.

Also on December 17, 2020, NRM VII Holdings I, LLC, a fund that was managed by Third Security prior to its distribution and subsequent sale in December 2020, distributed 243,001 shares of our common stock in connection with the pro rata liquidation in accordance with the terms of its Limited Liability Company Agreement dated January 12, 2012. In connection with such pro rata liquidation, 225,091 of such shares were distributed to entities under Mr. Kirk's common control.

Transactions with ECC Parties, Joint Ventures and Majority-Owned Subsidiaries

Oragenics

Pursuant to an ECC and a stock issuance agreement, each dated in June 2012, we granted to Oragenics, Inc. ("Oragenics") an exclusive license to use our proprietary technologies and other intellectual property to develop and commercialize antibiotics for the treatment of infectious diseases in humans and companion animals. In conjunction with our first ECC with Oragenics, we were entitled to, at our election, purchase up to 30% of securities offerings that may be conducted by Oragenics in the future, subject to certain conditions and limitations. We purchased 110,000 shares of Oragenics' common stock pursuant to this right. In November 2017, we amended this first ECC agreement with Oragenics, and as a result, were entitled to up to \$35 million of potential one-time payments for certain regulatory milestones. We also received reimbursement for services provided under the agreement and a percentage of profits derived from the sale of products developed from the ECC.

In June 2015, we entered into an ECC with Oragenics through which we granted to Oragenics an exclusive license to use our proprietary technologies and other intellectual property to pursue development of biotherapeutics for use in certain treatments of oral mucositis and other diseases and conditions of the oral cavity, throat, and esophagus. In consideration for this license, we received a \$5 million convertible promissory note. In December 2015, Oragenics converted this promissory note into 338,100 shares of Oragenics' common stock. In conjunction with this ECC, we agreed to purchase additional shares of Oragenics' common stock in a qualified financing, as defined in the agreement, during the 16 months following the effective date of this ECC in an amount up to the lesser of (i) the amount that is the proportion of such financing equal to our pro rata equity holdings in Oragenics as of the effective date and (ii) \$10 million subject to certain conditions. In June 2016, we purchased 226,142 shares of common stock pursuant to this commitment. Following an amendment in November 2017, we were entitled to up to \$37.5 million of potential one-time payments for (i) research and development services provided pursuant to this agreement and during the ECC and (ii) manufacturing services for our materials provided to Oragenics during the ECC. Prior to 2015, pursuant to stock purchase agreements, an affiliate of Mr. Kirk, NRM VII Holdings, I, LLC, purchased shares of Oragenics' common stock.

In November 2017, concurrent with Oragenics closing a preferred stock private placement, we exchanged a promissory note, including accrued interest, purchased from Oragenics in May 2017 and receivables due from Oragenics totaling \$3.4 million for Oragenics Series C preferred stock ("Series C Preferred Stock"). The Series C Preferred Stock is non-voting and non-convertible and is redeemable in whole or part at any time by Oragenics in cash. The Series C Preferred Stock accrued an annual 12% dividend payable in additional Series C Preferred Stock through May 10, 2019, and after such date, the annual dividend increased to 20%. As of December 31, 2019, based on the most recent financial information available on Oragenics, we concluded that there was no value to our investment in Oragenics preferred stock.

In January 2020, we sold all of our equity interests in Oragenics and our interests in the 2012 Oragenics ECC to TS Biotechnology as part of the TS Biotechnology Transaction.

Fibrocell Science

Pursuant to an ECC (the "2012 Fibrocell ECC"), a stock issuance agreement and a registration rights agreement, each dated in October 2012, we granted to Fibrocell Science, Inc. ("Fibrocell") an exclusive license to our technology platform to develop and commercialize genetically modified and nongenetically modified autologous fibroblasts and autologous dermal cells in the United States. Upon execution of the ECC, we received a technology access fee of 87,835 shares of Fibrocell's common stock valued at \$7.6 million as upfront consideration. We received reimbursement payments for (1) research and development services provided pursuant to the agreement and (2) manufacturing services for our materials provided to Fibrocell during the agreement. On a quarterly basis, Fibrocell paid us royalties of 7% of net sales up to \$25 million and 14% of net sales above \$25 million on each product developed from the ECC, as defined in the agreement. If Fibrocell used our technology platform to improve the production of a current or new Fibrocell product not developed from the 2012 Fibrocell ECC, Fibrocell was required to pay us quarterly royalties equal to 33% of the cost of goods sold savings generated by the improvement, as defined in the agreement.

Effective June 2013, we entered into an amendment to the 2012 Fibrocell ECC. The amendment expanded the 2012 Fibrocell ECC to include potential treatments based on engineered autologous fibroblast cells for the localized treatment of autoimmune and inflammatory disorders including morphea (localized scleroderma), cutaneous eosinophilias and moderate to severe psoriasis.

In July 2015, we and certain affiliates of Mr. Kirk acquired an aggregate amount of 65,066 shares of Fibrocell common stock at a price of \$87.00 per share.

In December 2015, we entered into our second ECC with Fibrocell (the “2015 Fibrocell ECC”) through which we granted to Fibrocell an exclusive license to use our proprietary technologies and other intellectual property to develop and commercialize genetically modified fibroblasts to treat chronic inflammatory and degenerative diseases of the joint, including arthritis and related conditions. We received a technology access fee of \$10 million under the 2015 Fibrocell ECC. In February 2020, we mutually agreed with Fibrocell to terminate the 2015 Fibrocell ECC.

In September 2016, we and certain affiliates of Mr. Kirk invested the aggregate amount of \$6.8 million in convertible debt securities. Such securities are convertible into common shares of Fibrocell at \$17.04375 per share. Additionally, in conjunction with the purchase of the convertible debt of Fibrocell, we and certain affiliates of Mr. Kirk received warrants to purchase 450,835 shares of Fibrocell common stock.

In March 2017, we and certain affiliates of Mr. Kirk acquired an aggregate amount of 3,016 shares of Series A convertible preferred stock of Fibrocell for an aggregate amount of \$3.0 million. Such preferred stock was convertible into common shares of Fibrocell at a price of \$11.6369 per share. Additionally, in conjunction with the purchase of the preferred stock of Fibrocell, we and certain affiliates of Mr. Kirk received warrants to purchase 259,176 shares of Fibrocell common stock.

In April 2019, Fibrocell entered into a collaboration agreement with Castle Creek Pharmaceuticals, LLC to develop and commercialize a product in the field of the 2012 Fibrocell ECC. Pursuant to the terms of the 2012 Fibrocell ECC, we were entitled to 50% of sublicensing fees. In December 2019, Fibrocell was acquired by Castle Creek Pharmaceutical Holdings, Inc. (“Castle Creek”).

An affiliate of Mr. Kirk, Third Security, held two seats on Fibrocell’s board of directors from October 2012 until Fibrocell’s acquisition in December 2019. Pursuant to securities purchase agreements and through open market purchases, affiliates of Mr. Kirk acquired shares of Fibrocell common stock, including the shares acquired in July 2015. As of immediately prior to Fibrocell’s acquisition by Castle Creek, Mr. Kirk, together with his affiliates (excluding us), beneficially owned 1,226,766 shares, or 12.6%, of Fibrocell’s outstanding common stock.

In connection with Castle Creek’s acquisition of Fibrocell, we received \$1.3 million in December 2019 for our shares of Fibrocell common stock and \$3.3 million in January 2020 for our Fibrocell convertible debt and Series A convertible preferred stock.

In March 2020, Precigen and Fibrocell terminated the 2012 Fibrocell ECC by mutual agreement. Fibrocell retains surviving licenses under the 2012 Fibrocell ECC to continue to develop and commercialize two specific drug product candidates subject to Fibrocell’s continued development and commercialization of those candidates and to continued payment to us of revenue sharing payments as set forth in the 2012 Fibrocell ECC.

Intrexon Energy Partners

In March 2014, we and certain investors (the “IEP Investors”), including an affiliate of Mr. Kirk, NRM VII Holdings I, LLC, entered into a Limited Liability Company Agreement which governs the affairs and conduct of business of Intrexon Energy Partners, LLC (“Intrexon Energy Partners”), a joint venture formed to optimize and scale-up our methane bioconversion platform technology for the production of certain fuels and lubricants. We also entered into an ECC with Intrexon Energy Partners providing exclusive rights to our technology for the use in bioconversion, as a result of which we received a technology access fee of \$25 million while retaining a 50% membership interest in Intrexon Energy Partners. The IEP Investors made initial capital contributions, totaling \$25 million in the aggregate, in exchange for pro rata membership interests in Intrexon Energy Partners totaling 50%.

We committed to make capital contributions of up to \$25 million, and the IEP Investors, as a group and pro rata in accordance with their respective membership interests in Intrexon Energy Partners, have committed to make additional capital contributions of up to \$25 million, at the request of the Intrexon Energy Partners Board, and subject to certain limitations. Intrexon Energy Partners is governed by the Intrexon Energy Partners Board, which has five members. Two members of the Intrexon Energy Partners Board are designated by us and three members are designated by a majority of the IEP Investors. We and the IEP Investors have the right, but not the obligation, to make additional capital contributions above these limits when and if solicited by the Intrexon Energy Partners Board.

Any investor who purchased at least \$10.0 million of our common stock in the private placement related to Intrexon Energy Partners will have the right to require us to register such shares of our common stock on a registration statement on Form S-3, if available for use.

Intrexon Energy Partners II

In December 2015, we and certain investors (the “IEP II Investors”), including Harvest, entered into a Limited Liability Company Agreement which governs the affairs and conduct of business of Intrexon Energy Partners II, LLC (“Intrexon Energy Partners II”), a joint venture formed to utilize our natural gas bioconversion platform for the production of 1,4-butanediol, an industrial chemical intermediate used to manufacture spandex, polyurethane, plastics, and polyester. We also entered into an ECC with Intrexon Energy Partners II providing exclusive rights to our technology for the use in the field, as a result of which we received a technology access fee of \$18 million while retaining a 50% membership interest in Intrexon Energy Partners II. The IEP II Investors made initial capital contributions, totaling \$18 million in the aggregate, in exchange for pro rata membership interests in Intrexon Energy Partners II totaling 50%. In December 2015, the owners of Intrexon Energy Partners II made a capital contribution of \$4 million, half of which was paid by us. We committed to make capital contributions of up to \$10 million, and the IEP II Investors, as a group and pro rata in accordance with their respective membership interests in Intrexon Energy Partners, have committed to make additional capital contributions of up to \$10 million, at the request of the Intrexon Energy Partners II board of managers, or the Intrexon Energy Partners II Board, and subject to certain limitations. Intrexon Energy Partners II is governed by the Intrexon Energy Partners II Board, which has five members. One member of the Intrexon Energy Partners II Board is designated by us and four members of the Intrexon Energy Partners II Board are designated by a majority of the IEP II Investors. We and the IEP Investors II have the right, but not the obligation, to make additional capital contributions above these limits when and if solicited by the Intrexon Energy Partners II Board.

Policies and Procedures for Related Person Transactions

The Board has adopted a written related policy with respect to related person transactions. This policy governs the review, approval or ratification of covered related person transactions. The Audit Committee of the Board oversees and manages this policy.

For purposes of this policy, a “related person transaction” is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we (or any of our subsidiaries) were, are or will be a participant, and the amount involved exceeds \$120,000 and in which any related person had, has or will have a direct or indirect interest. For purposes of determining whether a transaction is a related person transaction, the Audit Committee relies upon Item 404 of Regulation S-K, promulgated under the Exchange Act.

The policy generally provides that we may enter into a related person transaction only if:

- the Audit Committee pre-approves such transaction in accordance with the guidelines set forth in the policy;
- the transaction is on terms comparable to those that could be obtained in arm’s length dealings with an unrelated third party and the Audit Committee (or the chairperson of the Audit Committee) approves or ratifies such transaction in accordance with the guidelines set forth in the policy;
- the transaction is approved by the disinterested members of the Board; or
- the transaction involves compensation approved by the Compensation Committee.

In the event a related person transaction is not pre-approved by the Audit Committee and our management determines to recommend such related person transaction to the Audit Committee, such transaction must be reviewed by the Audit Committee. After review, the Audit Committee will approve or disapprove such transaction. When our Chief Legal Officer, in consultation with our CEO or our Chief Financial Officer, determines that it is not practicable or desirable for us to wait until the next Audit Committee meeting, the chairperson of the Audit Committee possesses delegated authority to act on behalf of the Audit Committee. The Audit Committee (or the chairperson of the Audit Committee) may approve only those related person transactions that are in, or not inconsistent with, our best interests and the best interests of our shareholders, as the Audit Committee (or the chairperson of the Audit Committee) determines in good faith.

The Audit Committee has determined that certain types of related person transactions are deemed to be pre-approved by the Audit Committee. Our related person transaction policy provides that the following transactions, even if the amount exceeds \$120,000 in the aggregate, are considered to be pre-approved by the Audit Committee:

- any employment of certain named executive officers that would be publicly disclosed;
- director compensation that would be publicly disclosed;
- transactions with other companies where the related person's only relationship is as a director or owner of less than 10% of said company (other than a general partnership), if the aggregate amount involved does not exceed the greater of \$200,000 or 5% of that company's consolidated gross revenues;
- transactions where all shareholders receive proportional benefits;
- transactions involving competitive bids;
- transactions with a related person involving the rendering of services at rates or charges fixed in conformity with law or governmental authority; and
- transactions with a related person involving services as a bank depository of funds, transfer agent, registrar, trustee under a trust indenture or similar services.

In addition, the Audit Committee will review the policy at least annually and recommend amendments to the policy to the Board from time to time.

The policy provides that all related person transactions will be disclosed to the Audit Committee, and all material related person transactions will be disclosed to the Board. Additionally, all related person transactions requiring public disclosure will be properly disclosed, as applicable, on our various public filings.

The Audit Committee will review all relevant information available to it about the related person transaction. The policy provides that the Audit Committee may approve or ratify the related person transaction only if the Audit Committee determines that, under all of the circumstances, the transaction is in, or is not inconsistent with, our best interests. The policy provides that the Audit Committee may, in its sole discretion, impose such conditions as it deems appropriate on us or the related person in connection with approval of the related person transaction.

Electronic Access of Proxy Materials and Annual Reports

Our Proxy Statement, including the accompanying notice and form of proxy, and 2020 Annual Report are available at <https://materials.proxyvote.com>. *A free paper copy of any of these documents may be requested by contacting the Corporate Secretary in writing at Precigen, Inc., 20374 Seneca Meadows Parkway, Germantown, Maryland 20876.*

“Householding” of Proxy Materials and Annual Reports for Record Owners

The SEC rules permit us, with your permission, to deliver a single proxy statement and annual report to any household at which two or more shareholders of record reside at the same address. Each shareholder will continue to receive a separate proxy card. This procedure, known as “householding,” reduces the volume of duplicate information you receive and reduces our expenses. Shareholders of record voting by mail can choose this option by marking the appropriate box on the proxy card included with this Proxy Statement. Shareholders of record voting via telephone or over the internet can choose this option by following the instructions provided by telephone or over the internet, as applicable. Once given, a shareholder’s consent will remain in effect until he or she revokes it by notifying our Corporate Secretary as described above. If you revoke your consent, we will begin sending you individual copies of future mailings of these documents within 30 days after we receive your revocation notice. Shareholders of record who elect to participate in householding may also request a separate copy of future proxy statements and annual reports by writing to the Corporate Secretary at Precigen, Inc., 20374 Seneca Meadows Parkway, Germantown, Maryland 20876 or by phone on (301) 556-9900.

Separate Copies for Beneficial Owners

Institutions that hold shares in street name for two or more beneficial owners with the same address are permitted to deliver a single proxy statement and annual report to that address. Any such beneficial owner can request a separate copy of this Proxy Statement or the 2020 Annual Report by contacting our Corporate Secretary as described below. Beneficial owners with the same address who receive more than one Proxy Statement and 2020 Annual Report may request delivery of a single Proxy Statement and 2020 Annual Report by contacting the Corporate Secretary in writing at Precigen, Inc., 20374 Seneca Meadows Parkway, Germantown, Maryland 20876.

OTHER MATTERS

The Board is not aware of any other matters to be presented for action at the Annual Meeting other than as set forth in this Proxy Statement. However, if other matters properly come before the Annual Meeting, or any adjournment or postponement thereof, the person or persons voting the proxies will vote them in accordance with their best judgment.

By Order of the Board of Directors

DONALD P. LEHR
Chief Legal Officer and Corporate Secretary

Germantown, Maryland
April 28, 2021

PRECIGEN, INC.
 20374 SENECA MEADOWS PARKWAY
 GERMANTOWN, MARYLAND 20876

VOTE BY INTERNET
 Before The Meeting - Go to www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Daylight Time on June 9, 2021. 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/PGEN2021

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 Daylight Time on June 9, 2021. 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:

D52918-P55559 KEEP THIS PORTION
 FOR YOUR RECORDS

 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

PRECIGEN, INC.

The Board of Directors recommends you vote FOR the following:

1. Company Proposal - Election of Directors

Nominees:	For	Against	Abstain
1a. Randal Kirk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1b. Cesar Alvarez	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1c. Steven Frank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1d. Vinita Gupta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1e. Fred Hassan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1f. Jeffrey Kinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1g. Dean Mitchell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1h. Helen Sabzevari	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1i. Robert Shapiro	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1j. James Turley	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Board of Directors recommends you vote FOR Proposals 2 and 3:

2. Company Proposal – Ratify the selection of Deloitte & Touche LLP as our independent registered public accounting firm for fiscal year ending December 31, 2021.

3. Company Proposal – Advisory vote on executive compensation.

NOTE: In their discretion, the proxies are authorized to vote on such other business as may properly come before the meeting or any adjournment thereof.

You may attend the meeting and vote during the meeting when the polls are open via the Internet. We recommend, however, that you vote before the meeting even if you plan to participate in the meeting. When voting, have the information that is printed in the box marked by the arrow and follow instructions.

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.

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Signature [PLEASE SIGN WITHIN BOX]

Date

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Signature (Joint Owners)

Date

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:

The Annual Report and Proxy Statement are available at www.proxyvote.com.

D52919-P55559

**PRECIGEN, INC.
Annual Meeting of Shareholders
June 10, 2021 9:00 AM EDT
This proxy is solicited by the Board of Directors**

The shareholder(s) hereby appoint(s) Helen Sabzevari and Donald P. Lehr, or either of them, as proxies, each with the power to appoint his/her substitute, and hereby authorize(s) them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common Stock of PRECIGEN, INC., that the shareholder(s) is/are entitled to vote at the Annual Meeting of Shareholders to be held at 9:00 AM EDT on June 10, 2021, via a live webcast at www.virtualshareholdermeeting.com/PGEN2021, and any adjournment or postponement thereof.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.

Continued and to be signed on reverse side