DYNAVAX TECHNOLOGIES CORP
Form DEF 14A
April 22, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the

Securities Exchange Act of 1934

(Amendment No.)

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

Check the appropriate box:

Preliminary Proxy Statement

Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material under §240.14a-12

DYNAVAX TECHNOLOGIES CORPORATION

(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:

2. Aggregate number of securities to which transaction applies:

3. Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

4. Proposed maximum aggregate value of transaction:

5. Total fee paid:

Fee paid previously with preliminary materials.

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6. Amount Previously Paid:

7. Form, Schedule or Registration Statement No.:

8. Filing Party:

9. Date Filed:

DYNAVAX TECHNOLOGIES CORPORATION

2929 Seventh Street, Suite 100

Berkeley, California 94710

NOTICE OF 2019 ANNUAL MEETING OF STOCKHOLDERS

May 30, 2019

Dear Stockholder:

You are cordially invited to attend the 2019 Annual Meeting of Stockholders of Dynavax Technologies Corporation, a Delaware corporation, or the Company. The meeting will be held on May 30, 2019, at 9:00 a.m. Pacific Time, at the Company s executive offices at 2929 Seventh Street, Suite 100, Berkeley, California 94710 for the following purposes:

1. To elect our nominees for Class I directors to hold office until the 2022 Annual Meeting of Stockholders or until their respective successors are duly elected and qualified.

2. To approve an amendment and restatement of the Dynavax Technologies Corporation 2018 Equity Incentive Plan to, among other things, increase the aggregate number of shares of common stock authorized for issuance under the plan by 2,300,000.

3. To approve, on an advisory basis, the compensation of the Company s named executive officers, as disclosed in the Proxy Statement accompanying this Notice.

4. To ratify the selection of Ernst & Young LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2019.

5. To conduct any other business properly brought before the meeting or any adjournment(s) thereof.

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

The record date for the 2019 Annual Meeting is April 9, 2019. Only stockholders of record at the close of business on that date may vote at the meeting or any adjournment thereof.

Important Notice Regarding the Availability of Proxy Materials for the Stockholders Meeting to Be Held at 9:00 a.m., Pacific Time, on May 30, 2019 at 2929 Seventh Street, Suite 100, Berkeley, California 94710.

The proxy statement and annual report to stockholders

are available at http://investors.dynavax.com/annuals-proxies.cfm.

The Board of Directors recommends that you vote FOR the proposals identified above.

By Order of the Board of Directors

/s/ Steven N. Gersten
Steven N. Gersten
Secretary

Berkeley, California

April 22, 2019

Your vote is very important, regardless of the number of shares you own. Whether or not you expect to attend the meeting, please complete, date, sign and return the enclosed proxy as promptly as possible in order to ensure your representation at the meeting. A return envelope (which is postage prepaid if mailed in the United States) is enclosed for your convenience. Even if you have voted by proxy, you may still vote in person if you attend the meeting. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

DYNAVAX TECHNOLOGIES CORPORATION

2929 Seventh Street, Suite 100

Berkeley, California 94710

PROXY STATEMENT

FOR THE 2019 ANNUAL MEETING OF STOCKHOLDERS

May 30, 2019

QUESTIONS AND ANSWERS ABOUT THIS PROXY MATERIAL AND VOTING

Why am I receiving these materials?

We have sent you this proxy statement and the enclosed proxy card because the Board of Directors, or Board, of Dynavax Technologies Corporation, or the Company or Dynavax, or we or us, is soliciting your proxy to vote at the 2019 Annual Meeting of Stockholders, or Annual Meeting. You are invited to attend the Annual Meeting to vote on the proposals described in this proxy statement. However, you do not need to attend the Annual Meeting to vote your shares. Instead, you may simply complete, sign and return the enclosed proxy card.

We intend to mail this proxy statement and accompanying proxy card on or about April 25, 2019, to all stockholders of record entitled to vote at the Annual Meeting.

How do I attend the Annual Meeting?

The Annual Meeting will be held on May 30, 2019 at 9:00 a.m. Pacific Time, at our executive offices at 2929 Seventh Street, Suite 100, Berkeley, California 94710. Directions to the Annual Meeting may be found at http://www.dynavax.com/contact. Information on how to vote in person at the Annual Meeting is discussed below. For admission to the Annual Meeting, stockholders may be asked to present proof of identification and a statement from their bank, broker or other nominee reflecting their beneficial ownership of our common stock as of April 9, 2019, as well as a proxy from the record holder to the stockholder.

Who can vote at the Annual Meeting?

Only stockholders of record at the close of business on April 9, 2019, will be entitled to vote at the Annual Meeting. On this record date, there were 65,063,889 shares of common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If on April 9, 2019, your shares were registered directly in your name with our transfer agent, then you are a stockholder of record. As a stockholder of record, you may vote in person at the Annual Meeting or vote by proxy. Whether or not you plan to attend the Annual Meeting, we urge you to fill out and return the enclosed proxy card to ensure your vote is counted.

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

If on April 9, 2019, your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in street name and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the Annual Meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the Annual Meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the Annual Meeting unless you request and obtain a valid proxy from your broker or other agent.

What am I voting on?

We are asking you to vote on four proposals:

1. To elect our nominees for Class I directors to hold office until the 2022 Annual Meeting of Stockholders or until their respective successors are duly elected and qualified.

2. To approve an amendment and restatement of the Dynavax Technologies Corporation 2018 Equity Incentive Plan (the 2018 EIP) to, among other things, increase the aggregate number of shares of common stock authorized for issuance under the plan by 2,300,000.

3. To approve, on an advisory basis, the compensation of the Company s named executive officers, as disclosed in this proxy statement.

4. To ratify the selection of Ernst & Young LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2019.

What is the Board s recommendation?

The Board recommends that you vote For each of the four proposals.

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

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

How do I vote?

You may either vote For all the nominees to the Board or you may Withhold your vote for any nominee you specify. For each of the other matters to be voted on, you may vote For or Against or abstain from voting. The procedures for voting are fairly simple:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote in person at the Annual Meeting or vote by proxy using the enclosed proxy card. Whether or not you plan to attend the Annual Meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the Annual Meeting and vote in person even if you have already voted by proxy.

To vote in person, come to the Annual Meeting and we will give you a ballot when you arrive. Directions to the Annual Meeting may be found at http://www.dynavax.com/contact.

To vote using the proxy card, simply complete, sign and date the enclosed proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us before the Annual Meeting, we will vote your shares as you direct.

To vote using the telephone, simply follow the instructions on the enclosed proxy card. Voting by telephone has the same effect as voting by mail. You may vote by telephone until 11:59 p.m., Eastern Time, May 29, 2019.

To vote using the internet, simply follow the instructions on the enclosed proxy card. You may vote by using the internet until 11:59 p.m., Eastern Time, May 29, 2019.

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

If you are a beneficial owner of shares registered in the name of your broker, bank or other agent, you should have received a proxy card and voting instructions with these proxy materials from that organization rather than from Dynavax. Simply complete and mail the proxy card to ensure that your vote is counted. To vote in person at the Annual Meeting, you must obtain a valid proxy from your broker, bank or other agent. Follow the instructions from your broker, bank or other agent included with these proxy materials, or contact your broker, bank or other agent to request a proxy form.

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

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of April 9, 2019.

What happens if I do not vote?

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record and do not vote by completing your proxy card, by telephone, through the internet or in person at the Annual Meeting, your shares will not be voted.

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

If you are a beneficial owner and do not instruct your broker, bank, or other agent how to vote your shares, the question of whether your broker or nominee will still be able to vote your shares depends on whether the applicable stock exchange deems the particular proposal to be a routine matter. Brokers and nominees can use their discretion to vote uninstructed shares with respect to matters that are considered to be routine, but not with respect to non-routine matters. Under the rules and interpretations of the NYSE, non-routine matters are matters that may substantially affect the rights or privileges of stockholders, such as mergers, stockholder proposals, elections of directors (even if not contested), executive compensation (including any advisory stockholder votes on executive compensation and on the frequency of stockholder votes on executive compensation), and certain corporate governance proposals, even if management-supported. Accordingly, your broker or nominee may not vote your shares on Proposals 1, 2, or 3 without your instructions, but may vote your shares on Proposal 4.

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

If you return a signed and dated proxy card without marking any voting selections, your shares will be voted:

1. Proposal 1: For election of our nominees for Class I directors.

2. Proposal 2: For approval of the amendment and restatement of the 2018 EIP to, among other things, increase the aggregate number of shares of common stock authorized for issuance under the plan by 2,300,000;

3. Proposal 3: For advisory approval of executive compensation; and

4. Proposal 4: For ratification of the selection of Ernst & Young LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2019.

If any other matter is properly presented at the Annual Meeting, your proxyholder (one of the individuals named on your proxy card) will vote your shares using his or her best judgment.

Who is paying for this proxy solicitation?

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

What does it mean if I receive more than one proxy card?

If you receive more than one proxy card, your shares are registered in more than one name or are registered in different accounts. Please complete, sign and return each proxy card to ensure that all of your shares are voted.

Can I change my vote after submitting my proxy?

Yes. You can revoke your proxy at any time before the final vote at the Annual Meeting. If you are the record holder of your shares, you may revoke your proxy in any one of three ways:

- You may submit another properly completed proxy card with a later date.

- You may send a timely written notice that you are revoking your proxy to Dynavax Technologies Corporation, Attention: Corporate Secretary, 2929 Seventh Street, Suite 100, Berkeley, California 94710.

- You may attend the Annual Meeting and vote in person. Simply attending the Annual Meeting will not, by itself, revoke your proxy.

Your proxy card with the most recent date is the one that will be counted.

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

When are stockholder proposals due for next year s Annual Meeting?

To be considered for inclusion in next year s proxy materials, your proposal must be submitted in writing by December 24, 2019 to Dynavax Technologies Corporation, Attention: Corporate Secretary, 2929 Seventh Street, Suite 100, Berkeley, California 94710, if mailed prior to June 1, 2019, or to 5959 Horton Street, Suite 700, Emeryville, California 94608, if mailed on or after June 1, 2019. However, if our 2020 Annual Meeting of Stockholders is not held between April 30, 2020, and June 29, 2020, then the deadline will be a reasonable time before we begin to print and send our proxy materials. If you wish to submit a proposal (including a director nomination) that is not to be included in next year s proxy materials or nominate a director, you must do so no later than the close of business on March 1, 2020, and no earlier than the close of business on January 31, 2020. However, if our 2020 Annual Meeting of Stockholders is not held between April 30, 2020, and June 29, 2020, then you must submit your proposal (or director nomination) not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the 90th day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made.

How many votes are needed to approve each proposal?

- Proposal 1, to elect our nominees for Class I directors, the three nominees receiving the most For votes from the holders of shares present (either in person or represented by proxy) and cast for the election of directors will be elected. Only votes For will affect the outcome of the vote; Withhold votes will have no effect on the outcome of the vote. However, if a nominee receives a greater number of Withhold votes than For votes, such nominee will submit his or her offer of resignation for consideration by our Nominating and Corporate Governance Committee in accordance with our Majority Vote Policy discussed in more detail on page 58 of this proxy statement.

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Proposal 2, to approve the amendment and restatement of the 2018 EIP to, among other things, increase the aggregate number of shares of common stock authorized for issuance under the 2018 EIP by 2,300,000, must receive For votes from the holders of a majority of shares present (either in person or by proxy) and entitled to vote on the matter at the meeting. If you return your proxy and select Abstain, it will have the same effect as an Against vote. Broker non-votes will have no effect.

Proposal 3, advisory approval of the compensation of the Company s named executive officers, will be considered to be approved if it receives For votes from the holders of a majority of shares present (either in person or by proxy) and entitled to vote on the matter at the meeting. If you return your proxy and select Abstain from voting, it will have the same effect as an Against vote. Broker non-votes will have no effect.

Proposal 4, to ratify the selection of Ernst & Young LLP as the Company s independent registered public accounting firm for our fiscal year ending December 31, 2019, must receive For votes from the holders of a majority of shares present (either in person or by proxy) and entitled to vote on the matter at the meeting. If you return your proxy and select Abstain from voting, it will have the same effect as an Against vote. Broker non-votes will have no effect, however, as Proposal 4 is considered a routine matter, we do not expect to receive any broker non-votes.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid Annual Meeting. A quorum will be present if stockholders holding at least a majority of the outstanding shares entitled to vote are present at the Annual Meeting in person or represented by proxy. On the record date, there were 65,063,889 shares outstanding and entitled to vote.

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

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

Preliminary voting results will be announced at the Annual Meeting. Final voting results will be published in a current report on Form 8-K within four business days following the voting. If we are unable to obtain final results in that time, we will announce the preliminary results and subsequently file a second current report on Form 8-K with the final results.

What proxy materials are available on the internet?

The 2019 proxy statement and 2018 Annual Report on Form 10-K are available at http://investors.dynavax.com/annuals-proxies.cfm.

Householding of Proxy Materials

The Securities and Exchange Commission, or SEC, has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for Annual Meeting materials with respect to two or more stockholders sharing the same address by delivering a single set of Annual Meeting materials addressed to those stockholders. This process, which is commonly referred to as householding, potentially means extra convenience for stockholders and cost savings for companies. A number of brokers with account holders who are Dynavax stockholders will be householding our proxy materials. A single set of Annual Meeting materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. If you no longer wish to participate in householding and would prefer to receive a separate set of Annual Meeting materials, please notify your broker and we will promptly deliver to you a separate set of our Annual Meeting materials. direct your written request to Dynavax Technologies Corporation, Attention: Corporate Secretary, 2929 Seventh Street, Suite 100, Berkeley, California 94710, if mailed prior to June 1, 2019, or to 5959 Horton Street, Suite 700, Emeryville, California 94608, if mailed on or after June 1, 2019, or contact Dynavax s Corporate Secretary at (510) 848-5100. Stockholders who currently receive multiple copies of the Annual Meeting materials at their addresses and would like to request householding of their communications should contact their brokers.

PROPOSAL 1

ELECTION OF DIRECTORS

Our Board is divided into three classes, and each class has a three-year term. Vacancies on the Board may be filled only by persons elected by a majority of the remaining directors. A director elected by the Board to fill a vacancy in a class, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director s successor is elected and qualified.

Our Board presently has eight members. There are three directors in the class whose term of office expires in 2019: Dennis A. Carson, M.D., Eddie Gray, and Laura Brege, each of whom is a nominee for director and currently a director of the Company. Dr. Carson, Mr. Gray and Ms. Brege were previously elected by the stockholders in 2016. If each nominee is elected at the Annual Meeting, each of these nominees will serve until the 2022 Annual Meeting and until his or her successor is elected and has qualified, or, if sooner, until the director s death, resignation or removal. We have a policy encouraging our directors attendance at our annual meetings. There were six directors in attendance at our 2018 Annual Meeting.

Directors are elected by a plurality of the votes of the holders of shares present in person or represented by proxy and entitled to vote on the election of directors. The three nominees receiving the highest number of affirmative votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the nominees named below. Although the election of directors at the Annual Meeting is uncontested and directors are elected by a plurality of votes cast, and we therefore anticipate that each of the named nominees for director will be elected at the Annual Meeting, under our Corporate Governance Guidelines, any nominee for director is required to submit an offer of resignation for consideration by the Nominating and Corporate Governance Committee if such nominee for director (in an uncontested election) receives a greater number of Withhold votes than For votes. In such case, the Nominating and Corporate Governance Committee will then consider all of the relevant facts and circumstances and recommend to the Board the action to be taken with respect to such offer of resignation. For more information on this policy see the section entitled Corporate Governance. If any nominee becomes unavailable for election as a result of an unexpected occurrence, your shares will be voted for the election of a substitute nominee proposed by our Board. Each person nominated for election has agreed to serve if elected. Our Board has no reason to believe that any nominee will be unable to serve.

THE BOARD OF DIRECTORS RECOMMENDS

A VOTE IN FAVOR OF EACH NAMED NOMINEE.

Set forth below is certain biographical information as of April 9, 2019, for the nominees and each person whose term as a director will continue after the Annual Meeting.

Name	Age	Position
Arnold L. Oronsky, Ph.D.	78	Chairperson of the Board
Francis R. Cano, Ph.D.	74	Director
Dennis A. Carson, M.D.	72	Director
Laura Brege	61	Director
Eddie Gray	60	Chief Executive Officer (CEO) and Director
Daniel L. Kisner, M.D.	72	Director
Peggy V. Phillips	65	Director
Natale Ricciardi	70	Director

CLASS I DIRECTORS NOMINEES

Dennis A. Carson, M.D.

Dr. Carson has been a member of our Board since December 1997. Dr. Carson is a noted researcher in the fields of autoimmune and immunodeficiency diseases and is co-discoverer with Dr. Eyal Raz of the immunostimulatory sequences (ISS) that form the basis of our technology. He has played key roles in the founding of Vical, Inc., a gene therapy company, IDEC Pharmaceuticals, a biopharmaceutical company, and Triangle Pharmaceuticals, a pharmaceutical company. Dr. Carson is former director of the Rebecca and John Moores Cancer Center at the University of California, San Diego and has been a professor in the Department of Medicine at the University of California, San Diego since 1990. The Board believes that Dr. Carson s significant experience in research and development provides important insights for the strategy of the Company, particularly with regard to scientific opportunities for development by the Company, and qualifies Dr. Carson to be nominated as a director. He is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the Institute of Medicine, as well as the American Association for Cancer Research, the American Society for Clinical Investigation, the American Society of Hematology and the Association of American Physicians. He received his M.D. from Columbia University and his B.A. from Haverford College. Dr. Carson completed his residency in internal medicine and a postdoctoral fellowship at the University of California, San Diego.

Eddie Gray CEO and Director

Mr. Gray joined Dynavax as Chief Executive Officer and was appointed to our Board in May 2013. Most recently, Mr. Gray served as the President of Pharmaceuticals Europe and a member of the corporate executive team at GlaxoSmithKline plc (GSK) from 2008 until 2013 and as Senior Vice President and General Manager of Pharmaceuticals UK from 2001 through 2007. Prior to the formation of GSK, Mr. Gray was with SmithKline Beecham from 1988 through 2000 serving in various positions of increasing responsibility, including Vice President and Director of Anti-Infectives Marketing in the U.S., Vice President and Director of the Vaccines Business Unit in the U.S., and Vice President and General Manager of Pharmaceuticals in Canada. Our Board believes that Mr. Gray s more than 30 years of pharmaceutical industry experience, including, most recently, as the President of Pharmaceuticals Europe at GSK, a leading pharmaceutical company, and other senior management roles at GSK and its predecessor, where he was responsible for the launch, commercialization and strategic development of vaccines and other products, enables him to provide commercial and strategic leadership to the Company and qualifies Mr. Gray to be nominated as a director. Mr. Gray received a Bachelor of Science degree in Chemistry and Management Studies from the University of London and an MBA from the Cranfield School of Management in the UK.

Laura Brege

Ms. Brege has been a member of our Board since February 2015. Since September 2015, she has served as managing director of Cervantes Life Science Partners, LLC, a consulting firm providing integrated business solutions to life sciences companies. She has over 20 years of executive management experience in the pharmaceutical, biotechnology and venture capital industries. From September 2012 to July 2015, Ms. Brege was President and Chief Executive Officer of Nodality Inc., a life sciences company focused on innovative personalized medicine. Prior to joining Nodality in 2012, Ms. Brege held several senior-level positions at Onyx Pharmaceuticals, Inc., a biopharmaceutical and biotherapeutics company, from 2006 until 2012, including positions as Executive Vice President and Chief Operating Officer. While at Onyx she led multiple functions, including commercialization, strategic planning, corporate development, and medical, scientific and government affairs. Prior to Onyx, Ms. Brege was a General Partner at Red Rock Capital Management, a venture capital firm specializing in early stage financing for technology companies. Previously Ms. Brege was Senior Vice President and Chief Financial Officer at COR Therapeutics, where she helped build the company from an early stage R&D company through commercial launch of a successful cardiovascular product. Earlier in her career, she served as Chief Financial Officer at Flextronics, Inc. and Treasurer of The Cooper Companies. She serves on the board of directors of the following public pharmaceutical companies: Acadia Pharmaceuticals, Inc., Pacira Pharmaceuticals, Inc., Portola Pharmaceuticals, Inc. and HLS Therapeutics, Inc., a pharmaceutical company. During the past five years, Ms. Brege also served on the boards of directors of Angiotech Pharmaceuticals, Inc., a biotechnology company, Delcath Systems, Inc., a pharmaceutical company, and Aratana Therapeutics Inc., a pharmaceutical company. Our Board believes that Ms. Brege s background in finance and management of biotechnology companies and her participation as a member of the audit committees of other public companies provides important strategic insights for the Board in setting strategy and reviewing the operations of the Company, as well as qualifies Ms. Brege to be nominated as a director. Ms. Brege attended all Board and Audit Committee meetings of the Company and all meetings of the boards and committees on which she sits at other companies during the past year. Ms. Brege earned her undergraduate degrees from Ohio University (Honors Tutorial College) and her MBA degree from the University of Chicago.

Class II Directors Continuing in Office Until the 2020 Annual Meeting

Daniel L. Kisner, M.D.

Dr. Kisner has been a member of our Board since July 2010. From 2003 to 2010, Dr. Kisner served as a partner at Aberdare Ventures and prior to that as President and CEO of Caliper Technologies, leading its evolution from a start-up focused on microfluidic lab-on-chip technology to a publicly traded, commercial organization. Prior to Caliper, he was the President and Chief Operating Officer of Isis Pharmaceuticals, Inc., a biomedical pharmaceutical company. Previously, Dr. Kisner was Division Vice President of Pharmaceutical Development for Abbott Laboratories and Vice President of Clinical Research and Development at SmithKline Beckman Pharmaceuticals. In addition, he held a tenured position in the Division of Oncology at the University of Texas, San Antonio School of Medicine and is certified by the American Board of Internal Medicine in Internal Medicine and Medical Oncology. Additionally, he is currently serving on the boards of Conatus Pharmaceuticals, Inc., a biotechnology company and Zynerba Pharmaceuticals, a biotechnology company. Dr. Kisner previously served as Chairman of the board for Tekmira Pharmaceuticals, a biopharmaceutical company, until March 2015, and as a director of Lpath, Inc., a medical device company. Our Board believes that Dr. Kisner s background with larger, complex technology-based organizations as well as his significant experience with corporate transactions, including investing in venture-backed life science companies provides the Board with insights for setting strategy of the Company and qualifies him to serve as a director. He holds a B.A. from Rutgers University and an M.D. from Georgetown University.

Natale (Nat) Ricciardi

Mr. Ricciardi has been a member of our Board since June 2013. Mr. Ricciardi spent his entire 39-year career at Pfizer Inc., a biopharmaceutical company, retiring in 2011 as a member of the Pfizer Executive Leadership Team. While holding the positions of President, Pfizer Global Manufacturing, and Senior Vice President of Pfizer Inc. from 2004 until 2011, Mr. Ricciardi was directly responsible for all of Pfizer s internal and external supply organization, a global enterprise that grew to more than 100 manufacturing facilities supplying small and large molecule pharmaceuticals, vaccines, consumer, nutrition and animal health products. Mr. Ricciardi maintained responsibility for global manufacturing activities from 2004 through 2011. Previously, from 1999 to 2004, he had oversight for Pfizer s U.S. manufacturing operations and from 1995 to 1999 was Vice President of Manufacturing for Pfizer s Animal Health Group. Mr. Ricciardi is currently a member of the board of directors of Rapid Micro Biosystems, Inc., a technology company focused on microbiology automation, and Prestige Consumer Healthcare, Inc., a healthcare company. Mr. Ricciardi also serves as a member of the board of directors of the 21st Century Foundation of The City College of New York and as a member of the Advisory Board of HealthCare Royalty Partners. Our Board believes Mr. Ricciardi s 39-year career at Pfizer Inc., a leading pharmaceutical company, including as a member of the Pfizer Executive Leadership Team and direct responsibility for all of Pfizer s internal supply organization, including global manufacturing, provides the Board with insights for reviewing the operations of the Company and qualifies him to serve as a director. Mr. Ricciardi earned a degree in Chemical Engineering from The City College of New York and an MBA in Finance and International Business from Fordham University.

Class III Directors Continuing in Office Until the 2021 Annual Meeting

Arnold L. Oronsky, Ph.D.

Dr. Oronsky has been a member of our Board since November 1996 and became Chairperson of the Board in February 2006. Dr. Oronsky has been a managing director with InterWest Partners, a venture capital firm, since 2009. Prior to joining InterWest Partners in 1994, Dr. Oronsky was Vice President of Discovery Research for the Lederle Laboratories division of American Cyanamid, a pharmaceutical company. From 1973 until 1976, Dr. Oronsky was head of the inflammation, allergy and immunology research program at Ciba-Geigy Pharmaceutical Company. Dr. Oronsky also serves as a senior lecturer in the Department of Medicine at The Johns Hopkins Medical School. Dr. Oronsky has won numerous grants and awards and has published over 125 scientific articles. Dr. Oronsky currently serves on the board of directors of KalVista Pharmaceuticals, Inc., a biotechnology company. Dr. Oronsky also served on the board of directors of MacroGenics, Inc., a biopharmaceutical company, from 2000 to 2014, Applied Genetic Technologies Corporation, a biotechnology company, from November 2003 until August 2017, and Tesaro, Inc., an oncology-focused biopharmaceutical company from June 2011 until May 2018. The Board believes that Dr. Oronsky s significant experience in growing and developing life sciences companies, particularly in the immunology area, provides significant leadership and insights for the Board in defining the strategy of the Company and qualifies him to serve as a director. He received his Ph.D. from Columbia University, College of Physicians and Surgeons and his A.B. from New York University.

Francis R. Cano, Ph.D.

Dr. Cano was appointed to our Board in November 2009. Dr. Cano has been President and Founder of Cano Biotech Corp., a consulting firm focusing on the vaccine business, since 1996 and also serves on the board of Biomerica, Inc., a developer and manufacturer of diagnostic products. Previously, Dr. Cano served on the board of Arbor Vita Corporation, a biopharmaceutical company. From 1993 to 1996, Dr. Cano was President and Chief Operating Officer for Aviron, a biopharmaceutical company, which was later acquired by MedImmune in 2001. As a Co-Founder of Aviron, he completed two rounds of venture financing, a licensing agreement with SmithKline Biologicals and in-licensed Flu-Mist influenza vaccine from the National Institutes of Health. For 21 years, Dr. Cano worked with the Lederle Laboratories Division of American Cyanamid, including as its Vice President and General Manager of the Biologicals unit. The Board believes that Dr. Cano s experience as a founder of and advisor to established vaccine businesses provides significant insights for the strategy of the Company with respect to key technical and operational issues in vaccine development and qualifies him to serve as a director. He earned a Ph.D. in Microbiology from Pennsylvania State University, served as a Research Associate at Rutgers Institute of Microbiology, and holds a M.S. in Microbiology and a B.S. in Biology from St. John s University.

Peggy V. Phillips

Ms. Phillips has been a member of our Board since August 2006. Ms. Phillips served on the board of directors of several biopharmaceutical companies: PhaseRx, Inc. from 2016 to 2018, Tekmira Pharmaceuticals from 2014 to 2015, Portola Pharmaceuticals from 2006 to 2013, as well as the Naval Academy Foundation from 2003 to 2011. From 1996 until 2002, she served on the board of directors of Immunex Corporation, a biotechnology company, and, from 1999, she served as its Chief Operating Officer until the company was acquired by Amgen in 2002. During her career at Immunex, she held positions of increasing responsibility in research, development, manufacturing, sales and marketing. As Senior Vice President for Pharmaceutical Development and General Manager for Enbrel® from 1994 until 1998, she was responsible for clinical development and regulatory affairs as well as the launch, sales and marketing of the product. Prior to joining Immunex, Ms. Phillips worked at Miles Laboratories. The Board believes that Ms. Phillips provides significant experience in development and commercialization of biotechnology products. Her background and experience with larger, complex organizations provides significant operational and strategic insights in assessing the strategy of the Company and qualifies her to serve as a director. Ms. Phillips holds a B.S. and a M.S. in microbiology from the University of Idaho.

PROPOSAL 2

APPROVAL OF AN AMENDMENT AND RESTATEMENT OF THE 2018 EQUITY INCENTIVE PLAN

The Board is requesting stockholder approval of an amendment and restatement of the Dynavax Technologies Corporation 2018 Equity Incentive Plan (the 2018 EIP). We refer to such amendment and restatement of the 2018 EIP in this proxy statement as the Amended 2018 EIP .

The Amended 2018 EIP contains the following material changes from the 2018 EIP:

Subject to adjustment for certain changes in our capitalization, the aggregate number of shares of our common stock that may be issued under the Amended 2018 EIP will not exceed 7,440,250 shares (plus the Prior Plans Returning Shares (as defined below), as such shares become available from time to time), which is an increase of 2,300,000 shares over the aggregate number of shares of our common stock that may be issued under the 2018 EIP.

The 2018 EIP contains a fungible share counting structure, whereby the number of shares of our common stock available for issuance under the 2018 EIP will be reduced by: (i) one share for each share issued pursuant to a stock option or stock appreciation right with an exercise price that is at least 100% of the fair market value of our common stock on the date of grant (an Appreciation Award) granted under the 2018 EIP; and (ii) 1.28 shares for each share issued pursuant to a stock award that is not an Appreciation Award (a Full Value Award) granted under the 2018 EIP. The Amended 2018 EIP retains such fungible share counting structure, except that the number of shares of our common stock available for issuance under the Amended 2018 EIP will be reduced by 1.40 shares for each share issued pursuant to a stock award that is a Full Value Award granted under the Amended 2018 EIP on or after May 30, 2019. As part of such fungible share counting structure, the number of shares of our common stock available for issuance under the Amended 2018 EIP will be increased by: (i) one share for each share that becomes available again for issuance under the terms of the Amended 2018 EIP subject to an Appreciation Award and (ii) 1.40 shares for each share that becomes available again for issuance under the terms of the Amended 2018 EIP subject to a Full Value Award on or after May 30, 2019.

The 2018 EIP provides that if a corporate transaction or change in control (each, a Transaction) occurs and the surviving or acquiring corporation (or its parent company) does not assume or continue outstanding awards under the 2018 EIP and/or any Prior Plan (i.e., the Dynavax Technologies Corporation 2011 Equity Incentive Plan (the 2011 EIP) or the Dynavax Technologies Corporation 2017 Inducement Award Plan), or substitute similar stock awards for such outstanding awards, then with respect to any such awards that have not been assumed, continued or substituted and that are held by participants whose continuous service has not terminated prior to the Transaction, the vesting of such awards will be accelerated in full to a date prior to the Transaction (contingent upon the closing or completion of the Transaction). The Amended 2018 EIP retains such provision, but specifies that for purposes of such acceleration, with respect to performance stock awards, vesting will be deemed to be satisfied at the target level of performance.

Why We Are Asking Our Stockholders to Approve the Amended 2018 EIP

We are seeking stockholder approval of the Amended 2018 EIP to increase the number of shares available for the grant of stock options, restricted stock unit awards and other awards by 2,300,000 shares, which will enable us to have a competitive equity incentive program to compete with our peer group for key talent.

Our stockholders approval of the Amended 2018 EIP will allow us to continue to grant stock options, restricted stock unit awards and other awards at levels determined appropriate by the Board or Compensation Committee. The Amended 2018 EIP will also allow us to further utilize a broad array of equity incentives in order to secure and retain the services of our employees and directors, and to continue to provide long-term incentives that align the interests of our employees and directors with the interests of our stockholders.

Stockholder Approval

If this Proposal 2 is approved by our stockholders, the Amended 2018 EIP will become effective as of the date of the Annual Meeting. In the event that our stockholders do not approve this Proposal 2, the Amended 2018 EIP will not become effective and the 2018 EIP will continue in its current form.

Why You Should Vote for the Amended 2018 EIP

The Amended 2018 EIP Combines Compensation and Governance Best Practices

The Amended 2018 EIP includes provisions that are designed to protect our stockholders interests and to reflect corporate governance best practices including:

- *Stockholder approval is required for additional shares*. The Amended 2018 EIP does not contain an annual evergreen provision. The Amended 2018 EIP authorizes a fixed number of shares, so that stockholder approval is required to issue any additional shares.

- *Repricing is not allowed*. The Amended 2018 EIP prohibits the repricing of stock options and stock appreciation rights without prior stockholder approval.

- *No discounted stock options or stock appreciation rights.* All stock options and stock appreciation rights granted under the Amended 2018 EIP must have an exercise price equal to or greater than the fair market value of our common stock on the date the stock option or stock appreciation right is granted.

- *Reasonable share counting provisions.* In general, when awards granted under the Amended 2018 EIP lapse or are canceled, the shares reserved for those awards will be returned to the share reserve and be available for future awards. However, any shares received from the exercise of stock options or withheld for taxes will not be returned to our share reserve.

- *Minimum vesting requirements.* The Amended 2018 EIP provides that no award may vest until at least 12 months following the date of grant of such award, except that shares up to 5% of the share reserve of the Amended 2018 EIP may be issued pursuant to awards that do not meet such vesting requirements.

- *Limit on non-employee director compensation.* The aggregate value of all cash and equity-based compensation granted or paid by us to any individual for service as a non-employee director of the Board with respect to any fiscal year of the Company will not exceed (i) a total of $200,000 with respect to any such cash compensation and (ii) $800,000 in total value with respect to any such equity-based compensation (including awards granted under the Amended 2018 EIP and any other equity-based awards), calculating the value of any such awards based on the grant date fair value of such awards for financial reporting purposes.

- *Restrictions on dividends.* The Amended 2018 EIP provides that (i) no dividends or dividend equivalents may be paid with respect to any shares of our common stock subject to an award before the date such shares have vested, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of the applicable award agreement (including any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to us on the date such shares are forfeited to or repurchased by us due to a failure to vest.

Overhang

The following table provides certain information regarding our equity incentive program.

	As of April 9, 2019
Total number of shares of common stock subject to outstanding stock options	7,293,909
Weighted-average exercise price of outstanding stock options	$ 16.22
Weighted-average remaining term of outstanding stock options	5.60 years
Total number of shares of common stock subject to outstanding full value awards	2,189,334
Total number of shares of common stock available for grant under the 2018 EIP[1]	1,554,878
Total number of shares of common stock outstanding	65,063,889
Per-share closing price of common stock as reported on NASDAQ Capital Market	$ 6.99

(1) As of April 9, 2019, there were no shares of common stock available for grant under any of our other equity incentive plans.

We Manage Our Equity Incentive Award Use Carefully and Dilution Is Reasonable

We continue to believe that equity incentive awards such as stock options and restricted stock unit awards are a vital part of our overall compensation program. Our compensation philosophy reflects broad-based eligibility for equity incentive awards, and we grant awards to substantially all of our employees. However, we recognize that equity incentive awards dilute existing stockholders, and, therefore, we must responsibly manage the growth of our equity compensation program. We are committed to effectively monitoring our equity compensation share reserve, including our burn rate, to ensure that we maximize stockholders value by granting the appropriate number of equity incentive awards necessary to attract, reward, and retain employees. In addition, the vesting of some of our equity awards granted to our named executive officers are contingent on meeting pre-defined performance criteria, thereby ensuring alignment with value creation.

The following table shows our responsible historical dilution and burn rate percentages.

As of December 31	2018	2017	2016
Full Dilution[1]	16.31%	14.92%	16.90%
Gross Burn Rate (as discussed in greater detail below)[2]	4.75%	5.23%	5.90%

(1) Full Dilution is calculated as (shares available for grant + shares subject to outstanding equity incentive awards)/(weighted average common stock outstanding + shares available for grant + shares subject to outstanding equity incentive awards).

(2) Gross Burn Rate is calculated as (shares subject to options granted + shares subject to other equity incentive awards granted)/weighted average common stock outstanding.

The Size of Our Share Reserve Increase Request Is Reasonable

If this Proposal 2 is approved by our stockholders, we will have 2,300,000 new shares available for grant after our Annual Meeting for a total of approximately 3,854,878 shares available for grant after our Annual Meeting (plus the Prior Plans Returning Shares (as defined below), as such shares become available from time to time), and absent any unforeseen circumstances, we anticipate returning to stockholders for additional shares in 2020.

Burn Rate

The following table provides detailed information regarding the activity related to our equity incentive plans for fiscal years 2018, 2017 and 2016.

	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016
Total number of shares of common stock subject to stock options granted	2,502,817	535,497	1,414,262
Total number of shares of common stock subject to full value awards granted	457,542	2,217,303	856,258
Weighted-average number of shares of common stock outstanding	62,361,828	52,613,215	38,505,856
Burn Rate	4.75%	5.23%	5.90%

Description of the Amended 2018 EIP

A summary of the principal features of the Amended 2018 EIP follows below. The summary is qualified by the full text of the Amended 2018 EIP that is attached as Appendix A to this proxy statement.

Purpose

The Amended 2018 EIP is designed to secure and retain the services of our employees and directors, provide incentives for our employees and directors to exert maximum efforts for the success of the Company and its affiliates, and provide a means by which our employees and directors may be given an opportunity to benefit from increases in the value of our common stock.

Types of Awards

The Amended 2018 EIP provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, and other stock awards.

Shares Available for Awards

Subject to adjustment for certain changes in our capitalization, the aggregate number of shares of our common stock that may be issued under the Amended 2018 EIP will not exceed 7,440,250 shares (which is the sum of (i) 140,250 shares (the number of unallocated shares that were available for grant under the 2011 EIP as of the effective date of the 2018 EIP), (ii) 5,000,000 additional shares that were reserved as of the effective date of the 2018 EIP, and (iii) 2,300,000 newly requested shares), plus the Prior Plans Returning Shares (as defined below), as such shares become available from time to time.

The term Prior Plans Returning Shares refers to the following shares of our common stock subject to any outstanding stock award granted under either of the Prior Plans: (i) any shares subject to such stock award that are not issued because such stock award expires or otherwise terminates without all of the shares covered by such stock award having been issued; (ii) any shares subject to such stock award that are not issued because such stock award is settled in cash; and (iii) any shares issued pursuant to such stock award that are forfeited back to or repurchased by us because of a failure to vest.

The following shares of our common stock (collectively, the Amended 2018 EIP Returning Shares) will also become available again for issuance under the Amended 2018 EIP: (i) any shares subject to a stock award granted under the Amended 2018 EIP that are not issued because such stock award expires or otherwise terminates without all of the shares covered by such stock award having been issued; (ii) any shares subject to a stock award granted under the Amended 2018 EIP that are not issued because such stock award is settled in cash; and (iii) any shares issued pursuant to a stock award granted under the Amended 2018 EIP that are forfeited back to or repurchased by us because of a failure to vest.

The following shares of our common stock will not become available again for issuance under the Amended 2018 EIP: (i) any shares that are reacquired or withheld (or not issued) by us to satisfy the exercise, strike or purchase price of a stock award granted under the Amended 2018 EIP or any Prior Plan (including any shares subject to such award that are not delivered because such award is exercised through a reduction of shares subject to such award); (ii) any shares that are reacquired or withheld (or not issued) by us to satisfy a tax withholding obligation in connection with a stock award granted under the Amended 2018 EIP or any Prior Plan; (iii) any shares repurchased by us on the open market with the proceeds of the exercise, strike or purchase price of a stock award granted under the Amended 2018 EIP or any Prior Plan; and (iv) in the event that a stock appreciation right granted under the Amended 2018 EIP or any Prior Plan is settled in shares, the gross number of shares subject to such award.

The number of shares of our common stock available for issuance under the Amended 2018 EIP will be reduced by: (i) one share for each share issued pursuant to an Appreciation Award granted under the Amended 2018 EIP; (ii) 1.28 shares for each share issued pursuant to a Full Value Award granted under the Amended 2018 EIP prior to May 30, 2019; and (iii) 1.40 shares for each share issued pursuant to a Full Value Award granted under the Amended 2018 EIP on or after May 30, 2019.

The number of shares of our common stock available for issuance under the Amended 2018 EIP will be increased by: (i) one share for each Prior Plans Returning Share or Amended 2018 EIP Returning Share subject to an Appreciation Award; (ii) 1.28 shares for each Prior Plans Returning Share or Amended 2018 EIP Returning Share subject to a Full Value Award that returns to the Amended 2018 EIP prior to May 30, 2019; and (iii) 1.40 shares for each Prior Plans Returning Share or Amended 2018 EIP Returning Share subject to a Full Value Award that returns to the Amended 2018 EIP on or after May 30, 2019.

Eligibility

All of our (including our affiliates) employees and non-employee directors are eligible to participate in the Amended 2018 EIP and may receive all types of awards other than incentive stock options. Incentive stock options may be granted under the Amended 2018 EIP only to our (including our affiliates) employees.

As of April 9, 2019, we (including our affiliates) had approximately 298 employees and seven non-employee directors.

Non-Employee Director Compensation Limit

The aggregate value of all cash and equity-based compensation granted or paid by us to any individual for service as a non-employee director of the Board with respect to any fiscal year of the Company will not exceed (i) a total of $200,000 with respect to any such cash compensation and (ii) $800,000 in total value with respect to any such equity-based compensation (including awards granted under the Amended 2018 EIP and any other equity-based awards), calculating the value of any such awards based on the grant date fair value of such awards for financial reporting purposes.

Administration

The Amended 2018 EIP will be administered by our Board, which may in turn delegate authority to administer the Amended 2018 EIP to a committee. Our Board has delegated concurrent authority to administer the Amended 2018 EIP to our Compensation Committee, but may, at any time, re-vest in itself some or all of the power delegated to our Compensation Committee. Our Board and Compensation Committee are each considered to be a Plan Administrator for purposes of this Proposal 2.

Subject to the terms of the Amended 2018 EIP, the Plan Administrator may determine the recipients, the types of awards to be granted, the number of shares of our common subject to or the cash value of awards, and the terms and conditions of awards granted under the Amended 2018 EIP, including the period of their exercisability and vesting. The Plan Administrator also has the authority to provide for accelerated exercisability and vesting of awards. Subject to the limitations set forth below, the Plan Administrator also determines the fair market value applicable to a stock award and the exercise or strike price of stock options and stock appreciation rights granted under the Amended 2018 EIP.

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

Repricing; Cancellation and Re-Grant of Stock Awards

Under the Amended 2018 EIP, the Plan Administrator does not have the authority to reprice any outstanding stock option or stock appreciation right by reducing the exercise or strike price of the stock option or stock appreciation right or to cancel any outstanding stock option or stock appreciation right that has an exercise or strike price greater than the then-current fair market value of our common stock in exchange for cash or other stock awards without obtaining the approval of our stockholders. Such approval must be obtained within 12 months prior to such an event.

Minimum Vesting Requirements

Under the Amended 2018 EIP, no award may vest until at least 12 months following the date of grant of such award, except that shares up to 5% of the share reserve of the Amended 2018 EIP may be issued pursuant to awards that do not meet such vesting requirements.

Dividends and Dividend Equivalents

The Amended 2018 EIP provides that dividends or dividend equivalents may be paid or credited with respect to any shares of our common stock subject to an award, as determined by the Plan Administrator and contained in the applicable award agreement; *provided, however*, that (i) no dividends or dividend equivalents may be paid with respect to any such shares before the date such shares have vested, (ii) any dividends or dividend equivalents that are credited with respect to any such shares will be subject to all of the terms and conditions applicable to such shares under the terms of the applicable award agreement (including any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to us on the date such shares are forfeited to or repurchased by us due to a failure to vest.

Stock Options

Stock options may be granted under the Amended 2018 EIP pursuant to stock option agreements. The Amended 2018 EIP permits the grant of stock options that are intended to qualify as incentive stock options, or ISOs, and nonstatutory stock options, or NSOs.

The exercise price of a stock option granted under the Amended 2018 EIP may not be less than 100% of the fair market value of our common stock on the date of grant and, in some cases (see Limitations on Incentive Stock Options below), may not be less than 110% of such fair market value.

The term of stock options granted under the Amended 2018 EIP may not exceed seven years from the date of grant and, in some cases (see Limitations on Incentive Stock Options below), may not exceed five years from the date of grant. Except as otherwise provided in a participant s stock option agreement or other written agreement with us or one of our affiliates, if a participant s service relationship with us or any of our affiliates (referred to in this Proposal 2 as continuous service) terminates (other than for cause and other than upon the participant s death or disability), the participant may exercise any vested stock options for up to three months following the participant s termination of continuous service. Except as otherwise provided in a participant s stock option agreement or other written agreement with us or one of our affiliates, if a participant s continuous service terminates due to the participant s disability or death (or the participant dies within a specified period, if any, following termination of continuous service), the participant, or his or her beneficiary, as applicable, may exercise any vested stock options for up to 12 months following the participant s termination due to the participant s disability or for up to 18 months following the participant s death. Except as explicitly provided otherwise in a participant s stock option agreement or other written agreement with us or one of our affiliates, if a participant s continuous service is terminated for cause (as defined in the Amended 2018 EIP), all stock options held by the participant will terminate upon the participant s termination of continuous service and the participant will be prohibited from exercising any stock option from and after such termination date. Except as otherwise provided in a participant s stock option agreement or other written agreement with us or one of our affiliates, the term of a stock option may be extended if the exercise of the stock option following the participant s termination of continuous service (other than for cause and other than upon the participant s death or disability) would be prohibited by applicable securities laws or if the sale of any common stock received upon exercise of the stock option following the participant s termination of continuous service (other than for cause) would violate our insider trading policy. In no event, however, may a stock option be exercised after its original expiration date.

Acceptable forms of consideration for the purchase of our common stock pursuant to the exercise of a stock option under the Amended 2018 EIP will be determined by the Plan Administrator and may include payment: (i) by cash, check, bank draft or money order payable to us; (ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board; (iii) by delivery to us of shares of our common stock (either by actual delivery or attestation); (iv) by a net exercise arrangement (for NSOs only); or (v) in other legal consideration approved by the Plan Administrator.

Stock options granted under the Amended 2018 EIP may vest and become exercisable in cumulative increments, as determined by the Plan Administrator at the rate specified in the stock option agreement (subject to the limitations described in Minimum Vesting Requirements above). Shares covered by different stock options granted under the Amended 2018 EIP may be subject to different vesting schedules as the Plan Administrator may determine.

The Plan Administrator may impose limitations on the transferability of stock options granted under the Amended 2018 EIP in its discretion. Generally, a participant may not transfer a stock option granted under the Amended 2018 EIP other than by will or the laws of descent and distribution or, subject to approval by the Plan Administrator, pursuant to a domestic relations order or an official marital settlement agreement. However, the Plan Administrator may permit transfer of a stock option in a manner that is not prohibited by applicable tax and securities laws. In addition, subject to approval by the Plan Administrator, a participant may designate a beneficiary who may exercise the stock option following the participant s death. Notwithstanding the foregoing, no option may be transferred to any financial institution without prior stockholder approval.

Limitations on Incentive Stock Options

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

- the exercise price of the ISO must be at least 110% of the fair market value of our common stock on the date of grant; and
- the term of the ISO must not exceed five years from the date of grant.

Subject to adjustment for certain changes in our capitalization, the aggregate maximum number of shares of our common stock that may be issued pursuant to the exercise of ISOs under the Amended 2018 EIP is 10,000,000 shares.

Stock Appreciation Rights

Stock appreciation rights may be granted under the Amended 2018 EIP pursuant to stock appreciation right agreements. Each stock appreciation right is denominated in common stock share equivalents. The strike price of each stock appreciation right will be determined by the Plan Administrator, but will in no event be less than 100% of the fair market value of our common stock on the date of grant. The term of stock appreciation rights granted under the Amended 2018 EIP may not exceed seven years from the date of grant. The Plan Administrator may also impose restrictions or conditions upon the vesting of stock appreciation rights that it deems appropriate (subject to the limitations described in Minimum Vesting Requirements above). The appreciation distribution payable upon exercise of a stock appreciation right may be paid in shares of our common stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the stock appreciation right agreement. Stock appreciation rights will be subject to the same conditions upon termination of continuous service and restrictions on transfer as stock options under the Amended 2018 EIP.

Restricted Stock Awards

Restricted stock awards may be granted under the Amended 2018 EIP pursuant to restricted stock award agreements. A restricted stock award may be granted in consideration for cash, check, bank draft or money order payable to us, the participant s services performed for us or any of our affiliates, or any other form of legal consideration acceptable to the Plan Administrator. Shares of our common stock acquired under a restricted stock award may be subject to forfeiture to or repurchase by us in accordance with a vesting schedule to be determined by the Plan Administrator (subject to the limitations described in Minimum Vesting Requirements above). Rights to acquire shares of our common stock under a restricted stock award may be transferred only upon such terms and conditions as are set forth in the restricted stock award agreement; *provided, however*, that no restricted stock award may be transferred to any financial institution without prior stockholder approval. Upon a participant s termination of continuous service for any reason, any shares subject to restricted stock awards held by the participant that have not vested as of such termination date may be forfeited to or repurchased by us.

Restricted Stock Unit Awards

Restricted stock unit awards may be granted under the Amended 2018 EIP pursuant to restricted stock unit award agreements. Payment of any purchase price may be made in any form of legal consideration acceptable to the Plan Administrator. A restricted stock unit award may be settled by the delivery of shares of our common stock, in cash, in a combination of cash and stock, or in any other form of consideration determined by the Plan Administrator and set forth in the restricted stock unit award agreement. Restricted stock unit awards may be subject to vesting in accordance with a vesting schedule to be determined by the Plan Administrator (subject to the limitations described in Minimum Vesting Requirements above). Except as otherwise provided in a participant s restricted stock unit award agreement or other written agreement with us or one of our affiliates, restricted stock units that have not vested will be forfeited upon the participant s termination of continuous service for any reason.

Performance Stock Awards

A performance stock award is a stock award that is payable (including that may be granted, may vest, or may be exercised) contingent upon the attainment of pre-determined performance goals during a performance period. A performance stock award may require the completion of a specified period of continuous service. The length of any performance period, the performance goals to be achieved during the performance period, and the measure of whether and to what degree such performance goals have been attained will be determined by the Plan Administrator (subject to the limitations described in Minimum Vesting Requirements above). In addition, to the extent permitted by applicable law and the performance stock award agreement, the Plan Administrator may determine that cash may be used in payment of performance stock awards.

Performance goals under the Amended 2018 EIP will be based on any one or more of the following performance criteria: (i) earnings (including earnings per share and net earnings); (ii) earnings before interest, taxes and depreciation; (iii) earnings before interest, taxes, depreciation and amortization (EBITDA); (iv) total stockholder return; (v) return on equity or average stockholder s equity; (vi) return on assets, investment, or capital employed; (vii) stock price or stock price performance; (viii) margin (including gross margin); (ix) net income (before or after taxes); (x) operating income; (xi) operating income after taxes; (xii) pre-tax profit; (xiii) operating cash flow; (xiv) sales or revenue targets; (xv) increases in revenue or product revenue; (xvi) expenses and cost reduction goals; (xvii) improvement in or attainment of working capital levels; (xviii) economic value added (or an equivalent metric); (xix) market share; (xx) cash flow; (xxi) cash flow per share; (xxii) share price performance; (xxiii) debt reduction; (xxiv) implementation or completion of projects or processes; (xxv) customer satisfaction; (xxvi) stockholders equity; (xxvii) capital expenditures; (xxviii) debt levels; (xxix) operating profit or net operating profit; (xxx) workforce diversity; (xxxi) growth of net income or operating income; (xxxii) billings; (xxxiii) submission to, or approval by, a regulatory body (including but not limited to the U.S. Food and Drug Administration) of an applicable filing for a product candidate or other product development milestones; (xxxiv) acquisitions, divestitures, joint ventures, strategic alliances, licenses or collaborations; (xxxv) spin-offs, split-ups, reorganizations, recapitalizations, restructurings, financings (debt or equity) or refinancings; (xxxvi) manufacturing or process development, clinical trial, regulatory, intellectual property, compliance or research objectives; and (xxxvii) any other measures of performance selected by the Plan Administrator.

Performance goals may be based on a company-wide basis, with respect to one or more business units, divisions, affiliates or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. The Plan Administrator is authorized to make appropriate adjustments in the method of calculating the attainment of performance goals for a performance period as follows: (i) to exclude restructuring and/or other nonrecurring charges; (ii) to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated performance goals; (iii) to exclude the effects of changes to generally accepted accounting principles; (iv) to exclude the effects of any statutory adjustments to corporate tax rates; (v) to exclude the effects of items that are unusual in nature or occur infrequently as determined under generally accepted accounting principles; (vi) to exclude the dilutive effects of acquisitions or joint ventures; (vii) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (viii) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (ix) to exclude the effects of stock based compensation and/or the award of an annual cash incentive under our Annual Incentive Program; (x) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item; and (xi) to make other appropriate adjustments selected by the Plan Administrator.

In addition, the Plan Administrator retains the discretion to reduce or eliminate the compensation or economic benefit due upon the attainment of any performance goals and to define the manner of calculating the performance criteria it selects to use for a performance period.

Other Stock Awards

Other forms of stock awards valued in whole or in part by reference to, or otherwise based on, our common stock may be granted either alone or in addition to other stock awards under the Amended 2018 EIP. Subject to the terms of the Amended 2018 EIP (including the limitations described in Minimum Vesting Requirements above), the Plan Administrator will have sole and complete authority to determine the persons to whom and the time or times at which such other stock awards will be granted, the number of shares of our common stock to be granted and all other terms and conditions of such other stock awards.

Clawback/Recoupment

Awards granted under the Amended 2018 EIP will be subject to recoupment in accordance with any clawback policy that we are required to adopt pursuant to the listing standards of any national securities exchange or association on which our securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Plan Administrator may impose other clawback, recovery or recoupment provisions in an award agreement, including a reacquisition right in respect of previously acquired shares or other cash or property upon the occurrence of cause.

Changes to Capital Structure

In the event of certain capitalization adjustments, the Plan Administrator will appropriately adjust: (i) the class(es) and maximum number of securities subject to the Amended 2018 EIP; (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of ISOs; and (iii) the class(es) and number of securities and price per share of stock subject to outstanding stock awards.

Corporate Transaction and Change in Control

The following provisions will apply to outstanding awards under the Amended 2018 EIP and any Prior Plan in the event of a corporate transaction (as defined in the Amended 2018 EIP and described below) or a change in control (as defined in the Amended 2018 EIP and described below) unless otherwise provided in the instrument evidencing the award, in any other written agreement between us or one of our affiliates and the participant, or in our director compensation policy. For purposes of this Proposal 2, the term Transaction will mean such corporate transaction or change in control.

In the event of a Transaction, any surviving or acquiring corporation (or its parent company) may assume or continue any or all outstanding awards under the Amended 2018 EIP and/or any Prior Plan, or may substitute similar stock awards for such outstanding awards (including, but not limited to, awards to acquire the same consideration paid to the stockholders of the Company pursuant to the Transaction), and any reacquisition or repurchase rights held by the Company in respect of shares issued pursuant to any outstanding awards under the Amended 2018 EIP and/or any Prior Plan may be assigned by the Company to the surviving or acquiring corporation (or its parent company). The terms of any such assumption, continuation or substitution will be set by the Plan Administrator.

In the event of a Transaction in which the surviving or acquiring corporation (or its parent company) does not assume or continue outstanding awards under the Amended 2018 EIP and/or any Prior Plan, or substitute similar stock awards for such outstanding awards, then with respect to any such awards that have not been assumed, continued or substituted and that are held by participants whose continuous service has not terminated prior to the effective time of the Transaction (the Current Participants), the vesting (and exercisability, if applicable) of such awards will be accelerated in full (and with respect to performance stock awards, vesting will be deemed to be satisfied at the target level of performance) to a date prior to the effective time of the Transaction (contingent upon the closing or completion of the Transaction) as the Plan Administrator will determine (or, if the Plan Administrator does not determine such a date, to the date that is five days prior to the effective time of the Transaction), and such awards will terminate if not exercised (if applicable) prior to the effective time of the Transaction in accordance with the exercise procedures determined by the Plan Administrator, and any reacquisition or repurchase rights held by the Company with respect to such awards will lapse (contingent upon the closing or completion of the Transaction).

In the event of a Transaction in which the surviving or acquiring corporation (or its parent company) does not assume or continue outstanding awards under the Amended 2018 EIP and/or any Prior Plan, or substitute similar stock awards for such outstanding awards, then with respect to any such awards that have not been assumed, continued or substituted and that are held by participants other than the Current Participants, such awards will terminate if not exercised (if applicable) prior to the effective time of the Transaction in accordance with the exercise procedures determined by the Plan Administrator; *provided, however*, that any reacquisition or repurchase rights held by the Company with respect to such awards will not terminate and may continue to be exercised notwithstanding the Transaction.

Notwithstanding the foregoing, in the event any outstanding award under the Amended 2018 EIP and/or any Prior Plan held by a participant will terminate if not exercised prior to the effective time of a Transaction, the Plan Administrator may provide that the participant may not exercise such award but instead will receive a payment, in such form as may be determined by the Plan Administrator, equal in value to the excess, if any, of (i) the value of the property the participant would have received upon the exercise of such award immediately prior to the effective time of the Transaction, over (ii) any exercise price payable by the participant in connection with such exercise.

Unless provided otherwise in the participant s award agreement, in any other written agreement or plan with us or one of our affiliates, or in our director compensation policy, outstanding awards under the Amended 2018 EIP and any Prior Plan will not be subject to additional acceleration of vesting and exercisability upon or after a change in control.

For purposes of the Amended 2018 EIP, a corporate transaction generally will be deemed to occur in the event of the consummation of: (i) a sale or other disposition of all or substantially all of our consolidated assets; (ii) a sale or other disposition of at least 90% of our outstanding securities; (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation; or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to the transaction are converted or exchanged into other property by virtue of the transaction.

For purposes of the Amended 2018 EIP, a change in control generally will be deemed to occur in the event: (i) a person, entity or group acquires, directly or indirectly, our securities representing more than 50% of the combined voting power of our then outstanding securities, other than by virtue of a merger, consolidation, or similar transaction; (ii) there is consummated a merger, consolidation, or similar transaction and, immediately after the consummation of such transaction, our stockholders immediately prior thereto do not own, directly or indirectly, more than 50% of the combined outstanding voting power of the surviving entity or the parent of the surviving entity in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such transaction; (iii) there is consummated a sale or other disposition of all or substantially all of our consolidated assets, other than a sale or other disposition to an entity in which more than 50% of the entity s combined voting power is owned by our stockholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such sale or other disposition; or (iv) over a period of 12 months or less, a majority of our Board becomes comprised of individuals whose nomination, appointment, or election was not approved by a majority of the Board members or their approved successors.

Plan Amendments and Termination

The Plan Administrator has the authority to amend or terminate the Amended 2018 EIP at any time. However, except as otherwise provided in the Amended 2018 EIP or an award agreement, no amendment or termination of the Amended 2018 EIP may materially impair a participant s rights under his or her outstanding awards without the participant s consent.

We will obtain stockholder approval of any amendment to the Amended 2018 EIP as required by applicable law and listing requirements. No incentive stock options may be granted under the Amended 2018 EIP after April 8, 2028, which is the tenth anniversary of the date the 2018 EIP was originally adopted by the Board.

U.S. Federal Income Tax Consequences

The following is a summary of the principal United States federal income tax consequences to participants and us with respect to participation in the Amended 2018 EIP. This summary is not intended to be exhaustive and does not discuss the income tax laws of any local, state or foreign jurisdiction in which a participant may reside. The information is based upon current federal income tax rules and therefore is subject to change when those rules change. Because the tax consequences to any participant may depend on his or her particular situation, each participant should consult the participant s tax adviser regarding the federal, state, local and other tax consequences of the grant or exercise of an award or the disposition of stock acquired the Amended 2018 EIP. The Amended 2018 EIP is not qualified under the provisions of Section 401(a) of the Internal Revenue Code of 1986, as amended (the Code), and is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974. Our ability to realize the benefit of any tax deductions described below depends on our generation of taxable income as well as the requirement of reasonableness, the provisions of Section 162(m) of the Code and the satisfaction of our tax reporting obligations.

Nonstatutory Stock Options

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

We will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the participant.

Incentive Stock Options

The Amended 2018 EIP provides for the grant of stock options that are intended to qualify as incentive stock options, as defined in Section 422 of the Code. Under the Code, a participant generally is not subject to ordinary income tax upon the grant or exercise of an ISO. If the participant holds a share received upon exercise of an ISO for more than two years from the date the stock option was granted and more than one year from the date the stock option was exercised, which is referred to as the required holding period, the difference, if any, between the amount realized on a sale or other taxable disposition of that share and the participant s tax basis in that share will be long-term capital gain or loss.

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

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

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

Restricted Stock Awards

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

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

We will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock award.

Restricted Stock Unit Awards

Generally, the recipient of a restricted stock unit award structured to comply with the requirements of Section 409A of the Code or an exemption to Section 409A of the Code will recognize ordinary income at the time the stock is delivered equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. To comply with the requirements of Section 409A of the Code, the stock subject to a restricted stock unit award may generally only be delivered upon one of the following events: a fixed calendar date (or dates), separation from service, death, disability or a change in control. If delivery occurs on another date, unless the restricted stock unit award otherwise complies with or qualifies for an exemption to the requirements of Section 409A of the Code, in addition to the tax treatment described above, the recipient will owe an additional 20% federal tax and interest on any taxes owed.

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

We will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the restricted stock unit award.

Stock Appreciation Rights

Generally, if a stock appreciation right is granted with an exercise price equal to the fair market value of the underlying stock on the grant date, the recipient will recognize ordinary income equal to the fair market value of the stock or cash received upon such exercise. We will generally be entitled to a tax deduction equal to the taxable ordinary income realized by the recipient of the stock appreciation right.

Section 162(m) Limitations

Under Section 162(m) of the Code (Section 162(m)), compensation paid to any publicly held corporation s covered employees that exceeds $1 million per taxable year for any covered employee is generally non-deductible. Awards granted under the Amended 2018 EIP will be subject to the deduction limit under Section 162(m) and will not be eligible to qualify for the performance-based compensation exception under Section 162(m) pursuant to the transition relief provided by the Tax Cuts and Jobs Act. For further information regarding the deduction limit under Section 162(m) and such transition relief, see the section entitled Compensation Discussion and Analysis Other Executive Compensation Matters Tax Effects of Executive Compensation.

New Plan Benefits under Amended 2018 EIP

Name and Position	Number of Shares
Eddie Gray[1] CEO and Director	
Michael S. Ostrach[1] Senior Vice President, Chief Financial Officer and Chief Business Officer	
Robert L. Coffman, Ph.D.[1] Senior Vice President and Chief Scientific Officer	
Robert Janssen, M.D.[1] Chief Medical Officer and Senior Vice President, Clinical Development, Medical and Regulatory Affairs	
David F. Novack[1] Senior Vice President, Operations and Quality	
All current executive officers as a group[1]	
All current directors who are not executive officers as a group[2]	105,000 per calendar year
All employees, including all current officers who are not executive officers, as a group[1]	

(1) Awards granted under the Amended 2018 EIP to our executive officers and other employees are discretionary and are not subject to set benefits or amounts under the terms of the Amended 2018 EIP, and our Board and our Compensation Committee have not granted any awards under the Amended 2018 EIP subject to stockholder approval of this Proposal 2. Accordingly, the benefits or amounts that will be received by or allocated to our executive officers and other employees under the Amended 2018 EIP are not determinable.

(2) Awards granted under the Amended 2018 EIP to our non-employee directors are discretionary and are not subject to set benefits or amounts under the terms of the Amended 2018 EIP. However, pursuant to our current compensation program for non-employee directors, each of our current non-employee directors is eligible to receive an annual grant of a stock option to purchase 15,000 shares of our common stock. On and after the date of the Annual Meeting, any such stock options will be granted under the Amended 2018 EIP if this Proposal 2 is approved by our stockholders. For additional information regarding our current compensation program for non-employee directors, please see Director Compensation below.

Awards Granted under the 2018 EIP

The following table sets forth, for each of the individuals and various groups indicated, the total number of shares of our common stock subject to awards that have been granted under the 2018 EIP as of April 9, 2019.

2018 Equity Incentive Plan

Name and Position	As of April 9, 2019 Number of Shares
Eddie Gray CEO and Director	350,000
Michael S. Ostrach Senior Vice President, Chief Financial Officer and Chief Business Officer	110,000
Robert L. Coffman, Ph.D. Senior Vice President and Chief Scientific Officer	110,000
Robert Janssen, M.D. Chief Medical Officer and Senior Vice President, Clinical Development, Medical and Regulatory Affairs	130,000
David F. Novack Senior Vice President, Operations and Quality	130,000
All current executive officers as a group	830,000
All current directors who are not executive officers as a group	105,000
Each non-employee nominee for election as a director:	
Laura Brege	15,000
Dennis A. Carson, M.D.	15,000
Each associate of any executive officers, current directors or director nominees	
Each other person who received or is to receive 5% of awards	
All employees, including all current officers who are not executive officers, as a group	2,609,608

Vote Required

The affirmative vote of the holders of a majority of shares present (either in person or by proxy) and entitled to vote on the matter at the Annual Meeting will be required to approve this Proposal 2. Abstentions will be counted toward the tabulation of votes cast on proposals presented to the stockholders and will have the same effect as negative votes. Broker non-votes are counted towards a quorum but are not counted for any purpose in determining whether this Proposal 2 has been approved.

THE BOARD OF DIRECTORS RECOMMENDS

A VOTE IN FAVOR OF PROPOSAL 2.

PROPOSAL 3

ADVISORY VOTE ON EXECUTIVE COMPENSATION

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act and Section 14A of the Exchange Act, Dynavax stockholders are being asked to approve, on an advisory basis, the compensation of our named executive officers as disclosed in this proxy statement, which is commonly referred to as a say-on-pay vote. This vote is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers, which results from our compensation philosophy, policies and practices as discussed in this proxy statement. The compensation of our named executive officers subject to the say-on-pay vote is described in the Compensation Discussion and Analysis, the accompanying tables, and the related narrative disclosure contained in this proxy statement.

Our Compensation Committee is responsible for designing and administering our executive compensation programs. Our Compensation Committee firmly believes that Dynavax s executive compensation programs should reward our named executive officers for performance, and that when key performance objectives are not achieved, the compensation of our named executive officers should reflect as much. We believe that the compensation of our named executive officers, as disclosed in this proxy, reflects this philosophy. In addition, our Compensation Committee believes that the compensation programs for our named executive officers have been instrumental in helping Dynavax be able to attract, retain and motivate our executive team, thereby enabling our company to be in a position to move forward with our business strategy.

Our Board of Directors is now asking our stockholders to indicate their support for the compensation of our named executive officers as described in this proxy statement by casting a non-binding advisory vote For the following resolution:

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

Although this vote is advisory and the outcome is not binding on our Board of Directors, the views expressed by our stockholders, whether through this vote or otherwise, are important to us. As a result, the Board of Directors and the Compensation Committee will carefully review the results of this vote, and they will consider these results in making future decisions about our executive compensation programs and arrangements.

Unless our Board of Directors modifies its policy on the frequency of future advisory votes on the compensation of our named executive officers, the next advisory vote on the compensation of our named executive officers will be held at the 2020 annual meeting of stockholders.

Approval of this advisory proposal requires the affirmative vote of the holders of a majority of shares present (either in person or by proxy) and entitled to vote on the matter at the Annual Meeting. Abstentions will be counted toward the tabulation of votes cast on proposals presented to the stockholders and will have the same effect as negative votes. Broker non-votes are counted towards a quorum but are not counted for any purpose in determining whether this Proposal 3 has been approved.

THE BOARD OF DIRECTORS RECOMMENDS

A VOTE IN FAVOR OF PROPOSAL 3.

PROPOSAL 4

RATIFICATION OF SELECTION OF

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has selected Ernst & Young LLP, or Ernst & Young, as our independent registered public accounting firm for the fiscal year ending December 31, 2019. Ernst & Young has audited our financial statements since 2002. Representatives of Ernst & Young are expected to be present at the Annual Meeting. Ernst & Young will have an opportunity to make a statement if it so desires and will be available to respond to appropriate questions.

If the stockholders fail to ratify the selection of Ernst & Young, the Audit Committee will reconsider whether or not to retain that firm. Even if the selection is ratified, the Audit Committee in its discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such a change would be in the best interests of the Company and its stockholders.

The affirmative vote of the holders of a majority of the shares present (either in person or by proxy) and entitled to vote on the matter at the Annual Meeting will be required to ratify the selection of Ernst & Young. Abstentions will be counted toward the tabulation of votes cast on proposals presented to the stockholders and will have the same effect as negative votes. Broker non-votes are counted towards a quorum but are not counted for any purpose in determining whether this matter has been approved; however, Proposal 4 is considered a routine matter, and therefore no broker non-votes are expected to exist in connection with this Proposal 4.

The Board Of Directors Recommends

A Vote In Favor Of Proposal 4.

Audit Fees

In connection with the audit of our 2018 financial statements, we entered into an engagement agreement with Ernst & Young which sets forth the terms by which Ernst & Young will perform audit services for us.

The following table represents aggregate fees billed to the Company for the fiscal years ended December 31, 2018 and 2017 by Ernst & Young, our principal auditors. The Audit Committee pre-approved all service fees described below.

	Fiscal Year Ended	
	2018	2017
Audit Fees[(1)]	$ 1,442,681	$ 1,203,801
Tax Fees[(2)]	79,200	40,500
All Other Fees[(3)]	1,995	1,995
Total Fees	$ 1,523,876	$ 1,246,296

(1) Audit fees include fees for the audit of our consolidated financial statements and interim reviews of our quarterly financial statements, including compliance with the provisions of Section 404 of the Sarbanes-Oxley Act as well as fees related to registration statements, consents and other services related to SEC matters. In each of 2017 and 2018, audit fees included fees related to a comfort letter in connection with an equity offering.

(2) Tax fees include Section 382 study and other tax advisory services.

(3) All other fees represent subscription fees for an online accounting research tool and related database.

Pre-approval Policies And Procedures

Our Audit Committee has adopted a policy and procedures for the pre-approval of audit and non-audit services rendered by our independent registered public accounting firm, Ernst & Young. Under the policy, the Audit

Committee pre-approves specified services in the defined categories of audit services, audit-related services, tax services and all other services up to specified amounts. Pre-approval may be given as part of the Audit Committee s approval of the scope of the engagement of the independent registered public accounting firm or on an interim basis by the Audit Committee Chair, as needed and on a case-by-case basis before the independent registered public accounting firm is engaged to provide each service.

The Audit Committee has determined that services rendered by Ernst & Young are compatible with maintaining the principal auditors independence.

EXECUTIVE OFFICERS

The following table sets forth certain information with respect to our executive officers as of April 9, 2019:

Name	Age	Position
Eddie Gray[(1)]	60	Chief Executive Officer and Director
Michael S. Ostrach	67	Senior Vice President, Chief Financial Officer and Chief Business Officer
Robert L. Coffman, Ph.D.	72	Senior Vice President and Chief Scientific Officer
Robert Janssen, M.D.	65	Chief Medical Officer and Senior Vice President, Clinical Development, Medical and Regulatory Affairs
David F. Novack	57	Senior Vice President, Operations and Quality

(1) Please see Proposal 1 Election of Directors in this proxy statement for more information about Mr. Gray.

Michael S. Ostrach Senior Vice President, Chief Financial Officer and Chief Business Officer

Mr. Ostrach is our Senior Vice President, Chief Financial Officer and Chief Business Officer. Mr. Ostrach joined Dynavax in October 2006 as Vice President, Chief Business Officer and General Counsel, and became Principal Financial Officer in September 2013, Chief Financial Officer in March 2015 and Senior Vice President in February 2016. Mr. Ostrach held the position of Dynavax s General Counsel from October 2006 to September 2015. From 2005 to 2006, he was Chief Operating Officer, Chief Financial Officer and General Counsel at Threshold Pharmaceuticals. From 1997 to 2004, Mr. Ostrach was at Kosan Biosciences, most recently as President and Chief Operating Officer. Mr. Ostrach began his corporate career at Cetus Corporation, where he served in several capacities between 1981 and 1991, initially as General Counsel and finally as Senior Vice President of Corporate Affairs and General Counsel. Following the acquisition of Cetus by Chiron Corporation in 1991, Mr. Ostrach became President of Chiron Technologies. He holds a B.A. from Brown University and a J.D. from Stanford Law School.

Robert L. Coffman, Ph.D. Senior Vice President and Chief Scientific Officer

Dr. Coffman was appointed Senior Vice President and Chief Scientific Officer of Dynavax in February 2014, and prior to that he was Vice President and Chief Scientific Officer of Dynavax since December 2000. Prior to joining Dynavax in 2000, Dr. Coffman was a founding member of the DNAX Research Institute in Palo Alto, California. Dr. Coffman has authored over 200 scientific publications, is a member of the National Academy of Sciences and the American Academy of Microbiology, and has received a number of prestigious awards for his work. With colleague Dr. Tim Mosmann, he defined the two principal subtypes of helper T cells, termed Th1 and Th2 cells, and demonstrated the central relationship between their differences in cytokine expression and function. Dr. Coffman defined basic mechanisms of T-cell regulation in asthma and infectious and parasitic diseases, and demonstrated the central role of regulatory CD4+ T cells in preventing inflammatory bowel disease. At Dynavax, Dr. Coffman has pioneered the development of agonists and antagonists for Toll-Like Receptors (TLRs), key recognition receptors in innate immunity. Dr. Coffman received an A.B. in Microbiology from Indiana University and a Ph.D. in Immunology from the University of California, San Diego.

Robert Janssen, M.D. Chief Medical Officer and Senior Vice President, Clinical Development, Medical and Regulatory Affairs

Dr. Janssen was appointed Chief Medical Officer and Senior Vice President, Clinical Development, Medical and Regulatory Affairs in January 2018. Dr. Janssen was appointed Chief Medical Officer and Vice President, Clinical Development and Regulatory Affairs in July 2013. He served as Dynavax s Vice President, Medical Affairs since November 2012 and was previously Senior Director, Clinical Development at Dynavax from 2010 through 2012, during which time he was extensively involved with Phase 3 clinical development of HEPLISAV-B and its

U.S. and European licensing applications. Prior to joining Dynavax, Dr. Janssen was Vice President, Medical Affairs at Gilead from 2008 to 2010 where he was responsible for oversight of physician and health care provider education focused on HIV and hepatitis B therapies. Until 2008, Dr. Janssen spent 23 years at the U.S. Centers for Disease Control and Prevention (CDC), most recently as the Director of the Division of HIV/AIDS Prevention from 2000 to 2008. Under his leadership, the CDC first explored HIV treatment as a mode of HIV prevention and launched several of the earliest Phase 3 trials of pre-exposure prophylaxis for HIV. Dr. Janssen received a Bachelor of Arts degree with Honors in Humanities from Stanford University and his M.D. degree from the University of Southern California. He is a neurologist with training in virology received at the University of Pennsylvania. Dr. Janssen has been the beneficiary of numerous honors and awards during his career. He has published over 130 scientific articles in a variety of journals and has served as a reviewer for leading scientific journals.

David F. Novack Senior Vice President, Operations and Quality

Mr. Novack joined Dynavax in March 2013 as Senior Vice President, Operations and Quality. Mr. Novack was formerly with Novartis Vaccines & Diagnostics where he served since 2009 as the Global Head of Technical Operations and Supply Chain for Diagnostics and previously from 2007 to 2009 as the Global Head of Vaccine Manufacturing Strategy. Prior to Novartis, Mr. Novack was the Vice President, Business Development for Vaxin, Inc., a vaccine company, from 2004 to 2006. From 1993 until 2004, Mr. Novack worked at MedImmune, formerly Aviron, serving in several capacities including business development, manufacturing, contract operations and most recently as Senior Director, Supply Chain Operations. Previously, from 1989 to 1993, Mr. Novack was with American Cyanamid Company in various roles. Mr. Novack received a B.S. in Biology from State University of New York and an M.B.A. from Columbia University.

Compensation Discussion And Analysis

Overview

This Compensation Discussion and Analysis discusses our executive compensation philosophy and practices and provides an overview of the Compensation Committee s 2018 decisions for the following named executive officers (NEOs) whose compensation is set forth in the Summary Compensation Table and other related tables contained in this proxy statement:

- Eddie Gray, Chief Executive Officer and Director;
- Michael S. Ostrach, Senior Vice President, Chief Financial Officer and Chief Business Officer;
- Robert L. Coffman, Ph.D., Senior Vice President and Chief Scientific Officer;
- Robert Janssen, M.D., Chief Medical Officer and Senior Vice President, Clinical Development, Medical and Regulatory Affairs; and
- David F. Novack, Senior Vice President, Operations and Quality.

We present this Compensation Discussion and Analysis in the following sections:

Executive Summary

Business Overview, Corporate Developments in 2018 and Early 2019 and Relationship to Executive Compensation

We are a fully-integrated biopharmaceutical company focused on leveraging the power of the body s innate and adaptive immune responses through toll-like receptor (TLR) stimulation. Our first commercial product, HEPLISAV-B® (Hepatitis B Vaccine (Recombinant), Adjuvanted), was approved by the United States Food and Drug Administration (FDA) in November 2017 for prevention of infection caused by all known subtypes of hepatitis B virus in adults age 18 years and older. We commenced commercial shipments of HEPLISAV-B in January 2018 and deployed our field sales force in February 2018. In March 2018, we received regulatory approval of the pre-filled syringe (PFS) presentation of HEPLISAV-B. Our development efforts are primarily focused on stimulating the innate immune response to treat cancer in combination with other immunomodulatory agents. Our lead investigational immuno-oncology product candidates are SD-101, currently being evaluated in Phase 2 clinical studies, and DV281, in a Phase 1 safety study. Given the long product development cycles in our business, we believe delivery of long term value to our stockholders is the best measure of our performance.

Heading into 2018, we had worked to diversify our portfolio such that our focus for the year was balanced between ongoing manufacturing, quality, commercialization and market adoption efforts for HEPLISAV-B and advancing our oncology program. As a result of this diversification, we viewed our success in 2018 and beyond as being based on our commercialization progress for HEPLISAV-B and achievements in our oncology program. Thus, we designed our 2018 executive compensation program to reward achievement of the specific related objectives we believed would advance our business strategy and create long-term value for our stockholders. In particular, our 2018 annual incentive program was aligned with our corporate objectives by selecting and weighting corporate goals as follows:

- Commercialization, dosage volume sold and manufacturing goals for HEPLISAV-B were weighted at 42.5%;
- Objectives specific to advancing our oncology pipeline were weighted at 42.5%; and
- Business plan goals that supported advancing our business and portfolio strategies were weighted at 15%.

Committed to achieving these corporate goals in 2018, our NEOs were focused on executing our HEPLISAV-B business strategy by working to successfully commercialize it, deploy a field sales force, develop a distribution network, obtain reimbursement coverage, develop and implement a healthcare compliance program to support compliant product-related business practices, and ensure that we achieved sufficient manufacturing capability to successfully meet demand and that such manufacturing was done in accordance with applicable quality requirements. Our NEOs were also focused on advancing a robust pipeline of immuno-oncology clinical stage development programs and discovering other cutting-edge TLR-based vaccines and immunotherapies. We believe that we have balanced the diverse needs of being a fully-operational commercial company with continuing to advance our scientific progress in research and development in our immuno-oncology program, including reporting significant results relating to SD-101 in combination with Keytruda® (pembrolizumab), an anti-PD-1 therapy, and initiating a Phase 1 safety study of DV281 in combination with another anti-PD-1 therapy.

Propelled by our diversification strategy and the performance of our NEOs, we believe 2018 was a year of many positive developments for our company. For HEPLISAV-B, we not only commercialized the product and made significant strides advancing it through the multiple-step decision-making process employed by institutional hepatitis B vaccine purchasers, but we also gained regulatory approval of the PFS presentation of the vaccine we believe this was an important accomplishment, as it increased our ability to achieve faster adoption of our product by physicians and other key decision-makers. HEPLISAV-B also received a recommendation from the Centers for Disease Control Advisory Committee on Immunization Practices (ACIP) and additional payer and policy review and approval. Each of these developments served to lay a foundation for future sales growth for HEPLISAV-B through advocacy and adoption efforts.

We also successfully delivered certain key corporate goals related to advancing our immuno-oncology programs. In particular, we announced results associated with SD-101 and advanced DV281 into the clinical stage. We also achieved certain business plan goals that supported advancing our business and portfolio strategies.

Certain key events that took place for our company involving HEPLISAV-B and our immuno-oncology pipeline in 2018 are summarized below:

- In January, we announced that HEPLISAV-B was available to adults in the United States, becoming the first new hepatitis B vaccine in the United States in more than 25 years and the only two-dose hepatitis B vaccine for adults. Commercial sales followed immediately after availability.

- In February, we deployed our field sales force for HEPLISAV-B, and the sales force members immediately began meeting with institutional decision-makers about HEPLISAV-B and commencing other selling efforts. In addition, we announced that ACIP voted unanimously in favor of including HEPLISAV-B on its list of ACIP-recommended products for use to vaccinate adults against hepatitis B. The ACIP recommendation is required by many insurance plans and institutions in order to cover or make available HEPLISAV-B, and was an essential step in providing patients with broad access to HEPLISAV-B going forward.

- In March, we received FDA approval of the PFS presentation of HEPLISAV-B, enabling us to meet the preferred means of physicians, institutions and payers in delivering the only two-dose adult hepatitis B vaccine in the United States.

- In April, we presented durability of response data in advanced melanoma patients from the ongoing Phase 1b/2 study investigating SD-101 in combination with pembrolizumab. This data showed that 86% of initial responses were ongoing after a median of 18 months of follow-up in patients that were naïve to anti-PD-1/L1 monotherapy. We also, presented interim data for SD-101 in combination with pembrolizumab for patients with advanced squamous cell carcinoma of the head and neck, indicating, among other things, an overall response rate (ORR) of 33%, and that SD-101 was well-tolerated with no dose-limiting toxicities. The data was presented at the 2018 American Association for Cancer Research Annual Meeting.

- In April, we also announced the CDC s publication of ACIP s recommendation for the use of HEPLISAV-B for adults in the United States in the Morbidity and Mortality Weekly Report (MMWR). Publication in the MMWR is the final endorsement of HEPLISAV-B that was required by many institutional policies for reimbursement.

- In June, we announced the presentation of updated findings in patients with advanced melanoma in the ongoing Phase 1b/2 study investigating SD-101 in combination with pembrolizumab. The data showed a 70% ORR in patients who received the £ 2 mg dose of SD-101 and a 6-month progression free survival rate of 76% in patients naïve to anti-PD-1 treatment in patients who received the £ 2 mg dose of SD-101. The data was presented at the 2018 American Society of Clinical Oncology Annual Meeting.

- In June, we also announced results of a post hoc analysis of data from HBV 23, the pivotal Phase 3 trial of HEPLISAV B evaluating data for participants with type 2 diabetes aged 60 to 70. The per protocol analysis showed that the seroprotection rate at week 28 for HEPLISAV-B was 85.8% compared to 58.5% for Engerix-B®, that HEPLISAV-B induced higher geometric mean concentration at week 24 than Engerix-B at week 28, and that HEPLISAV-B had a similar safety profile compared to Engerix-B, regardless of study subgroup. The data were presented at the 2018 American Diabetes Association Annual Meeting.

- In August, we announced that 100% of Medicare-insured lives, 94% of commercially-insured lives, and 74% of lives under state Medicaid plans were now covered for HEPLISAV-B, ensuring a strong reimbursement environment as we continue to seek market share.

In August, we also announced that two peer-reviewed papers reporting clinical studies of SD-101 were published by *Cancer Discovery*, a journal publication from the American Association of Cancer

Research (AACR). The investigators reported clinical activity and broad immune activation in the tumor microenvironment when SD-101 is administered in combination with either low dose radiation in patients with indolent lymphoma or in combination with PD-1 blockade in patients with unresectable or metastatic melanoma.

In September, we announced publication of a preclinical study demonstrating that inhalation of a TLR9 agonist, such as DV281, can stimulate effective immunity against lung tumors and complement the actions of PD-1 blockade to generate durable, systemic anti-tumor immunity.

In October, we announced that the combination of SD-101 and pembrolizumab would be evaluated in a new randomized, investigational treatment arm for the ongoing I-SPY 2 Trial for neoadjuvant treatment of locally advanced breast cancer, expanding SD-101 s potential use in the field of neoadjuvant immunotherapy.

In October, we also presented interim data from our ongoing Phase 1b/2 SYNERGY-001 study investigating SD-101 in combination with pembrolizumab in patients with advanced melanoma naïve to anti-PD-1/L1 therapy. The interim data showed a 70% ORR in advanced melanoma patients naïve to anti-PD-1/L1 therapy who received the £ 2 mg dose of SD-101 and a 48% ORR in the group receiving the 8 mg dose of SD-101. The data was presented at the European Society for Medical Oncology 2018 Congress.

In November, we announced significant progress on HEPLISAV-B s commercialization, including obtaining Pharmacy and Therapeutics (P&T) committee approval from six of the top 10 integrated delivery networks, and that 402 of our largest targeted customers have received P&T committee approval, of whom 200 have progressed to purchase HEPLISAV-B and 68 have implemented HEPLISAV-B throughout their system, indicating continuing adoption of HELPISAV-B as the standard of care for hepatitis B vaccination in adults in the U.S. This progress is critical to our achievement of HEPLISAV-B in 2019 and beyond.

Compensation Governance Highlights

What we do	What we do not do
Design executive compensation program to align pay with performance	No excessive change in control or severance payments (no cash severance multiplier greater than 2x base + target bonus)
Majority of pay is variable and not guaranteed (over 86% for our CEO in 2018)	No repricing of underwater stock options without stockholder approval
Prohibit hedging and discourage pledging by executive officers and directors (no pledging occurred in 2018)	No tax gross-ups
Grant equity awards with performance-based vesting	No perquisites
Conduct an annual say-on-pay vote	No guaranteed bonuses
Seek input from, listen to and respond to stockholders	

Consideration of Our Prior Say-on-Pay Votes and Related Stockholder Engagement

In 2016, our Board of Directors adopted, and our stockholders approved, a policy that we would hold a say-on-pay vote on a yearly basis. Since adjusting to an annual say-on-pay practice, we have experienced continued favorable voting results with our say-on-pay practices. The results of the past three years voting have been over

70%, 85%, and 95% in fiscal years 2016, 2017, and 2018, respectively, of stockholders voting in favor of our pay practices.

Because of its importance, we continue to solicit feedback from our stockholders regarding our executive compensation program as part of our stockholder outreach. We view the stockholder feedback process as a year-round activity, and we have incorporated stockholder feedback into our pay practices, such as implementing performance-based equity measures for our NEOs. As a result, we obtained feedback from our stockholders in the spring and fall of 2018, and plan to do so again in 2019. As part of our annual stockholder feedback program, we contacted 12 of our largest 20 institutional stockholders in early fall 2018, and we spoke with 100% of the stockholders that wanted to provide us with feedback at that time about our corporate governance and executive compensation practices. During these discussions, which included an opportunity for detailed questions, none of our stockholders expressed any concerns about our corporate governance or executive compensation practices. The bulk of the stockholders, while appreciating the outreach, did not feel a need to talk at the time.

Executive Compensation Program

Philosophy and Objectives

We believe our NEOs compensation should align our executives success with that of our stockholders over the long-term through achievement of strategic corporate objectives that are fundamental to our business model and that will create long-term stockholder value. Our executive compensation programs are designed to be competitive with our peer group to enable us to attract, motivate, reward, and retain outstanding talent. Our compensation programs are based on the following key principles:

A significant component of pay is linked with performance and the achievement of our strategic goals;

Alignment of our executives interests with those of our stockholders through equity compensation;

Overall compensation that is competitive in the industry in which we compete for executive talent; and

Recognition of individual contributions, teamwork and corporate performance.

Compensation-Setting Process

Role of the Compensation Committee and Management

The Compensation Committee oversees and administers our executive compensation programs. The Compensation Committee acts pursuant to a charter adopted by our Board, which can be found at our website, www.dynavax.com. The Compensation Committee generally determines the compensation to be paid to the executive officers, including our NEOs. Either the Compensation Committee or the independent members of our Board, upon recommendation from the Compensation Committee, approve certain compensation of our CEO, and references in this Compensation Discussion and Analysis to our Board approving our CEO s compensation refer to the independent members of our Board.

The Compensation Committee (and the board of directors, with respect to our CEO) approves our corporate goals and the individual goals of our NEOs after considering the Company s recommendations on these matters. The Compensation Committee annually reviews the base salaries, cash incentives and equity compensation of our NEOs and periodically reviews other elements of our compensation. Compensation decisions are based primarily on the following:

Peer and Industry Data The Compensation Committee uses peer and industry data provided by its consultant, Arnosti Consulting Inc. (Arnosti), as a reference in setting base salaries and target cash compensation, determining appropriate levels and mix of equity compensation and determining the type and portion of compensation tied to performance goals.

Annual Performance Reviews The Chair of the Compensation Committee conducts annual performance reviews of our CEO taking into consideration feedback obtained during the course of the year from the

independent members of our Board and the CEO s direct reports. Our CEO conducts and presents the performance reviews of the other NEOs to the Compensation Committee after the end of each fiscal year. In reviewing and determining the compensation of each NEO, the Compensation Committee also considers individual factors, such as potential for future contributions to Company growth, industry experience and retention concerns.

CEO Recommendations The Compensation Committee seeks input from our CEO for setting the salary and target cash compensation levels for the other NEOs, and also for purposes of setting annual performance metrics and target amounts under our annual incentive program.

Role of Compensation Consultant

Arnosti has been the Compensation Committee s independent compensation consultant since 2010, and the Compensation Committee meets regularly with Arnosti, both with and without management present, depending upon the topic being discussed.

In January 2018 and again in February 2019, the Compensation Committee reviewed whether the work of Arnosti as a compensation consultant raised any conflict of interest, taking into consideration the following factors:

- The provision of other services to the Company;
- The amount of fees paid to Arnosti by the Company;
- Arnosti s policies and procedures that are designed to prevent conflicts of interest;
- Any business or personal relationship of Arnosti or the individual compensation advisors employed by Arnosti with an executive officer of the Company; and
- Any Company stock owned by Arnosti or the individual compensation advisors employed by Arnosti.

Based on the Compensation Committee s review of this information, it determined the work of Arnosti and the individual compensation advisors employed by Arnosti as compensation consultant to the Compensation Committee, did not create any conflict of interest. The Compensation Committee has the sole authority to direct, terminate or continue Arnosti s services, although the Company pays the cost for Arnosti s services.

In 2018, Arnosti provided advice to the Compensation Committee on several different aspects of its responsibilities related to our compensation programs and practices. Specifically, during 2018, Arnosti assisted the Compensation Committee as follows:

- Reviewed and analyzed compensation levels of our NEOs in comparison to those of our peer companies;
- Provided general information concerning executive compensation trends and developments;
- Provided recommendations to the Compensation Committee on refining our peer group;
- Provided an assessment of the annual meeting voting results;

- Provided the Board with a review of competitive data from the peer group on Board compensation; and

- Reviewed the Compensation Discussion and Analysis for inclusion in our proxy statement.

2018 Peer Group

Our Compensation Committee uses a peer group for a general understanding of market compensation practices and our positioning within the peer group. Our Compensation Committee believes that over-reliance on benchmarking could result in compensation that is unrelated to the value delivered by the NEOs because compensation benchmarking does not take the specific performance of the NEOs, or the performance of the Company, into account.

Our Compensation Committee does not have a specific target compensation level for the NEOs or otherwise use a formulaic approach to setting pay at a particular positioning within the market data; rather, the Compensation Committee reviews a range of market data reference points of the Company s peer group with respect to total target cash compensation (including both base salary and the annual target performance bonus) and equity compensation (valued based on an approximation of grant date fair value and also considered as shares as a percentage of total common shares outstanding) to support its compensation decisions.

For 2018 compensation decisions, our Compensation Committee approved a peer group of biotechnology companies at a similar stage of product development with which we compete for executive talent that were of similar size to the Company in terms of market capitalization, product portfolio, pipeline and number of employees. To align with our strategic plan, which included commercialization of HEPLISAV-B and expansion of our pipeline with early clinical development in cancer immunotherapy, our peer group included companies that were:

Commercial-stage (italicized in the list below and representing approximately 32% of the companies in our peer group);

Both oncology and non-oncology focused; and

Companies that had their own manufacturing operations.

The change in our peer group from 2017 to 2018 included removing five companies for various reasons including market caps that were out of range or because the company had been acquired. The companies that were removed were Ariad Biotech Inc., Celldex Therapeutics, Inc., Exelixis, Inc., Kite Pharma, Inc. and NewLink Genetics Corporation. As of September 2017, which was shortly before the 2018 peer group was approved, the companies in the 2018 peer group had market capitalizations between ranging from $296 million to $3.9 billion and the median market capitalization of our peer group was $870 million. At that time, our market capitalization was $1.258 billion. The following table lists our 2018 peer group.

Aduro Biotech, Inc.

Amicus Therapeutics, Inc.

Array Biopharma, Inc.

BioCryst Pharmaceuticals, Inc.

ChemoCentryx, Inc.

Cytokinetics, Inc.

Clovis Oncology, Inc.

Depomed, Inc.

Demira, Inc.

Eagle Pharmaceuticals, Inc.

Emergent BioSolutions, Inc.

Epizyme, Inc.

Heron Therapeutics, Inc.
ImmunoGen, Inc.

MacroGenics, Inc.

Nektar Therapeutics, Inc.

Novavax, Inc.

Puma Biotechnology, Inc.

Repligen Corp.

Rigel Pharmaceuticals, Inc.

Sarepta Therapeutics, Inc.

Supernus Pharmaceuticals, Inc.

TG Therapeutics, Inc.

Xenocor, Inc.

Ziopharm Oncology, Inc.

Elements of Executive Compensation

Our executive team continues to manage a changing and increasingly complex business. We strive to recognize these efforts by compensating our NEOs for the demands and risks associated with our business through three primary elements that are designed to reward performance in a simple and straightforward manner base salaries, annual performance-based cash incentives and long-term equity awards. During our annual stockholder outreach,

our key stockholders expressed support for the elements of our executive compensation program, including our continued use of stock options as one portion of long-term equity awards and continuing to grant a portion of long-term equity awards with performance-based vesting. As reflected in the chart below, we utilized performance-based vesting for a portion of our 2018 long-term equity awards.

The table below summarizes the purpose and key characteristics of each of our compensation elements.

Element	Purpose	Key Characteristics
Base Salary	Provides a fixed level of compensation for performing the essential day-to-day elements of the job; gives executives a degree of certainty in light of having a majority of their compensation at risk.	Fixed compensation that is reviewed annually and adjusted if and when appropriate; reflects each NEO s performance, experience, skills, level of responsibility and the breadth, scope and complexity of the position as well as the competitive marketplace for executive talent specific to our industry.
Annual Incentive Program	Motivates executive officers to achieve corporate and individual business goals, which we believe increase stockholder value, while providing flexibility to respond to opportunities and changing market conditions.	Annual cash incentive based on corporate and individual performance compared to pre-established goals. Our CEO s annual incentive is based entirely on corporate goals.
		Corporate goals focus on overarching objectives for the Company which will support long-term value, while individual objectives represent key performance expectations at the departmental or individual level.
		Corporate goals are aligned with our business strategy and weighted by relative importance so that achievement can be objectively measured.
Long-Term Equity Incentives (Stock Options)	Motivates executive officers to achieve our business objectives by tying incentives to the appreciation of our common stock over the long term.	Stock options with an exercise price equal to the fair market value on the date of grant vesting over three years; the ultimate value realized, if any, depends on the appreciation of our common stock price and if our stock price does not appreciate, there is no value realized. In determining the aggregate size of equity grants in any given year, the Compensation Committee generally considers the same factors described above under Base Salaries as well as the criticality of the executive to the long-term achievement of corporate goals.
		In March 2018, 20% of our NEO s annual grants were performance-based stock option awards vesting upon the Compensation Committee s certification of achievement of pre-established performance goals discussed below.

Element	Purpose	Key Characteristics
		From time to time, we may also use special grants of stock options for purposes of retention or to reward continuous service within the company, as was done in 2018 in the case of two of our NEOs.
Long-Term Equity Incentives (RSUs)	Motivates executive officers to achieve our corporate objectives by tying compensation to the performance of our common stock over the long term and/or the achievement of business and clinical development goals over the long term; motivates our executive officers to remain with the Company by mitigating swings in incentive values during periods when market volatility weighs on our stock price.	Restricted stock unit awards may vest based on continued service over a specified period of time and/or achievement of performance goals; the ultimate value realized varies with our common stock price.
		From time to time, we may also use special RSU awards for purposes of retention or to reward continuous service within the company. No such RSUs were granted to NEOs in 2018.
Other Compensation	Our executive officers participate in the same benefits offered to all other employees, which promote employee health and welfare and assist in attracting and retaining our executive officers.	Indirect compensation element consisting of programs such as medical, vision, dental, life and accidental death, long-term care and disability insurance as well as a 401(k) plan with a Company matching contribution, and other plans and programs made available to all eligible employees.
Severance and Change in Control Benefits	Serves our retention objectives by helping our named executive officers maintain continued focus and dedication to their responsibilities to maximize stockholder value, including in the event of a transaction that could result in a change in control of our Company.	Provides protection in the event of a termination of employment under specified circumstances, including following a change in control of our Company as described below under Potential Payments Upon Change in Control or Involuntary Termination.

2018 Executive Compensation Decisions

Total Target Cash Compensation Base Salaries and Target Bonus Percentages

When determining 2018 base salary and target bonus percentage adjustments, the Compensation Committee considered each individual s performance and Company performance, each individual s industry experience and tenure, internal pay equity, and retention concerns. The Compensation Committee also reviewed a range of market data reference points (the 10th, 25th, 50th, 60th, 75th and 90th percentiles of peer group data) with respect to total target cash compensation (including both base salary and the annual target performance bonus).

The Compensation Committee (and the board of directors, with respect to our CEO) decided that for 2018 each NEO s target bonus percentage would remain the same as in 2017 (which has not increased for any of our NEOs since 2013) and base salaries would be increased as shown in the table below. In determining NEO compensation, the Compensation Committee takes into account peer group data; each NEO s industry experience, expertise, and tenure with the Company; internal pay equity and the Company s annual salary budget.

Name	2018 Base Salary	% Increase from Prior Year[(1)]	2018 Target Bonus
Eddie Gray	$ 621,000	3.5%	60%
Michael S. Ostrach	$ 439,875	3.5%	50%
Robert L. Coffman, Ph.D.	$ 483,134	3.5%	50%
Robert Janssen, M.D.	$ 438,000	9.5%	50%
David F. Novack	$ 401,700	4.0%	50%

(1) Dr. Janssen was promoted to his current position of Chief Medical Officer and Senior Vice President, Clinical Development, Medical and Regulatory Affairs in 2018.

Long-Term Equity Incentive Awards

In making annual long-term equity incentive awards to NEOs in early 2018, the Compensation Committee considered each NEO s total options outstanding as of December 31, 2017, his performance during 2017, the potential amount that could be realized at different hypothetical stock prices upon exercise of those awards and each NEO s percentage of ownership of the Company. The Compensation Committee also reviewed peer group data reference points (the 10th, 25th, 50th, 60th, 75th and 90th percentiles of the market data) with respect to an approximation of grant date fair value and shares as a percentage of total common shares outstanding. Additionally, the Compensation Committee considered the mix of stock options and RSUs granted in 2017. The Compensation Committee made final determinations based on its judgment in accordance with our pay-for-performance philosophy and the need to retain and motivate these highly experienced and essential members of our management team.

The Compensation Committee (and the board of directors, with respect to our CEO) determined to grant each NEO s annual long-term incentive compensation with a blend of both time-based options and performance-based options in 2018. The Compensation Committee s determination to only grant stock options to each NEO in 2018 was partially based upon the Compensation Committee s grant of both time-and performance-based RSUs in 2017 as part of each NEO s annual long-term incentive compensation, as well one-time retention grants of RSUs to our NEOs that were made in 2017. As a result, the Compensation Committee determined that a blend of time-based and performance-based stock options was most appropriate.

In 2018, the Compensation Committee approved annual grants in the form of stock options. Eighty percent of each NEO s 2018 annual grant was in the form of a time-based option, subject to each individual s continuous service, one-third of the shares subject to each grant vested on February 1, 2019 and the remainder vests in equal monthly installments thereafter.

The remaining 20% of the NEO s 2018 annual grant were performance-based stock options that vest solely upon the Compensation Committee s certification of achievement of the following equally weighted performance goals:

Achieve approval by the FDA of Pre-filled Syringe (PFS) and potency assay applications;

Sales of at least 200,000 doses of HEPLISAV-B;

Release 720,000 doses of HEPLISAV-B PFS;

Complete SD-101 and DV281 development plans;

Initiate expanded SD-101 clinical trial program; and

Achieve financing to ensure certain cash-on-hand goals.

In February 2019, the Compensation Committee (and the Board, with respect to our CEO) affirmed the achievement of the performance goals at the 90% level and the vesting of these stock options at such level. The table below describes the aggregate grant date fair value of these stock options granted in fiscal year 2018.

Name	Grant Date Fair Value of February 2018 Time-Based Stock Option Awards		Grant Date Fair Value of March 2018 Performance-Based Stock Option Awards	
Eddie Gray	$	3,032,400	$	758,100
Michael S. Ostrach	$	866,400	$	216,600
Robert L. Coffman, Ph.D.	$	866,400	$	216,600
Robert Janssen, M.D.	$	866,400	$	216,600
David F. Novack	$	866,400	$	216,600

Additionally, in March 2018, the Compensation Committee made a special time-based stock option grant to Mr. Ostrach and Dr. Coffman of 150,000 shares each, of which 50% will vest in March 2020, and the remainder will vest in March 2021. Our Compensation Committee determined that it was necessary to grant these retention equity awards to Mr. Ostrach and Dr. Coffman during this critical time so as to secure their continued leadership, including, for Mr. Ostrach, oversight of accounting, finance, business development and intellectual property, in connection with integration of the HEPLISAV-B field sales team as Dynavax employees and our continued commercialization efforts, and as we make decisions to advance our immuno-oncology program, and for Dr. Coffman, with respect to our immuno-oncology program, including his key scientific role in advancing SD-101 and DV281.

In February 2019, our Board (with respect to our CEO and upon the recommendation of the Compensation Committee) and the Compensation Committee (with respect to our other NEOs) approved annual long-term equity incentive awards to our NEOs. These awards consisted of 80% time-based stock option awards, and 20% performance-based RSU awards. The stock option grants vest over three years, with one-third of the shares subject to each portion vesting 12 months after the grant date, and the remainder vesting in equal monthly installments thereafter. The performance-based RSUs will vest, if at all, upon the Compensation Committee s determination that certain performance goals are met.

2018 Annual Incentive Program Structure, Goals and Payout Decision

Structure. Our CEO does not have individual goals separate from the Company s corporate objectives. For our other NEOs, their total cash incentive payout is typically based on a weighting of 50% corporate and 50% individual goals. Our CEO recommends individual goals for each NEO, which are aligned with our business strategy and linked with corporate goals, and our Compensation Committee approves these goals. The individual goals for the NEOs are in addition to the general responsibilities each officer has for managing his respective functional or operational area.

2018 Corporate Goals. In early 2018, the Compensation Committee established the corporate and individual goals described below. While we now are a fully-integrated biopharmaceutical company with a marketed product and robust development programs, at the time our marketed product was very newly introduced to the market, and so our corporate goals were directly aligned with the specific strategic objectives, including completing important foundational elements for HEPLISAV-B, such as restarting the Dusseldorf manufacturing facility, obtaining FDA approval of the PFS application and deploying the field sales team, and advancing the development programs that we continue to believe will create long-term value for stockholders. In February 2019, the Compensation Committee evaluated the accomplishments and performance of the Company against such corporate goals. With respect to each of the categories of Corporate Goals (that is, HEPLISAV-B Advancement; Oncology: Advance the Pipeline; and Sustain the Dynavax Business Plan), the Committee took into consideration each of the goals identified and the level of completion in making an overall determination of goal completion for each category. We have omitted details about the 2018 goals or achievement of goals in the table below only where we believe disclosing such details would result in competitive harm. After its consideration of the Company s performance, as more specifically described in the following chart, the Compensation Committee rated our 2018 corporate achievement at 90% of our 2018 corporate goals.

Corporate Goal	Weighting	Corporate Achievement	Corporate Achievement Percentage
HEPLISAV-B Advancement Obtain ACIP recommendation. Post-marketing study and first patient in. FDA approval of PFS and potency assay applications. Engage, train and deploy field sales organization. Minimum 90% reimbursement coverage of commercial lives 90 days post-ACIP recommendation. Minimum of 200,000 doses sold. 720,000 doses of PFS doses released. Execute re-start plan for Dusseldorf manufacturing facility and release 2 hepatitis B surface antigen batches. Develop and implement healthcare compliance program to ensure compliant HEPLISAV-B	42.5%	The Compensation Committee determined that we achieved the goals in this category at an overall percentage of 85%. In determining this percentage, the Compensation Committee considered several factors, including: Obtaining the ACIP recommendation. Achieving the first patient enrolled in post-marketing study. Obtaining FDA approval of PFS and potency assay . Successful deployment of field sales organization. Achievement of reimbursement coverage of commercial lives goal. Positioning us for increasing HEPLISAV-B sales in 2019 and beyond by advancing through the lengthy institutional decision-making process in 2018. 100,000 doses of HEPLISAV-B sold. Introduction of PFS to market and rapid customer uptake of this presentation.	85%

operations.		Successfully restarting the Dusseldorf manufacturing facility. Successful implementation of a healthcare compliance program associated with status as a commercial company.	
Oncology: Advance the Pipeline Advance oncology programs that are in clinical studies, including initiating enrollment in various studies for SD-101 and advance intra-tumoral vaccination studies for 2019 initiation. Complete SD-101 and DV281 development plans.	42.5%	The Compensation Committee determined that we achieved the goals in this category at an overall percentage of 95%. In determining this percentage, the Compensation Committee considered several factors, including: Advancement of SD-101 in melanoma and squamous cell head and neck cancer and data presentation of results at key oncology meetings.	95%

Corporate Goal	Weighting	Corporate Achievement	Corporate Achievement Percentage
Select lead compound TLR 7/8 agonists and develop and explore production and collaboration strategies.		The selection of SD-101 and pembrolizumab in combination for advanced breast cancer in the on-going I-SPY 2 trial.	
Identify and execute oncology-specific meeting presentation/publication timetable.		Initiation of DV281 Phase 1 study.	
		Completion of SD-101 and DV281 Development Plans.	
Sustain the DVAX Business Plan	15%	The Compensation Committee determined that we achieved the goals in this category at an overall percentage of 90%. In determining this percentage, the Compensation Committee considered several factors, including:	90%
At least one year of cash at year end 2018.			
Control net cash usage within budget.		Maintaining one year of cash at year end.	
Establish and implement necessary financial reports and controls to deliver compliant commercial organization.		Controlling net cash usage.	
Implement quality systems automation.		Establishing and implementing financial reports and controls.	
Complete preparations for pharmacovigilance inspection.		Successful pharmacovigilance inspection.	
Develop and implement investor relations and corporate communications program, including regular investor engagement.		Hiring VPs of Quality and Investor Relations & Corporate Communications.	
Recruit key leadership positions.			

Develop strategic plan document and update Board of Directors on a bi-annual basis.		
Total	**100%**	**90%**

The terms used, but not defined above, have the following definitions:

ACIP is the Centers for Disease Control and Prevention s Advisory Committee on Immunization Practices.

I-SPY 2 is the Investigation of Serial Studies to Predict Your Therapeutic Response With Imaging And moLecular Analysis 2 study.

2018 Individual Goals. As described above, our CEO does not have individual goals separate from the Company s corporate objectives. For our other NEOs, the total cash incentive payout for 2018 was based on a weighting of 50% corporate and 50% individual goals. Our CEO recommends individual goals for each NEO, which are aligned with our business strategy and linked with corporate goals, and our Compensation Committee approves these goals. The individual goals for our NEOs relate to critical responsibilities of each NEO that go beyond the corporate goals and are significant to our success. The 2018 individual goals for the NEOs include those listed below. These specific goals were in addition to the general responsibilities each officer had for managing his respective functional operational area.

Our Compensation Committee, in recognition of the fact that 50% of the incentive payout for each NEO is based on corporate goal achievement, believes it is of equal importance to assess the individual achievement portion of the goal grading in a manner that is reflective of performance against the individual goals. Thus, as is the case with respect to the 2018 individual goals, there may be circumstances where the individual goal grading exceeds the corporate goal grading, and there may be instances where the corporate goal grading will surpass the individual goal grading. In early 2019, based on the recommendation of our CEO, as well as the observations by Compensation Committee members of these officers and its own assessment of each NEO s effectiveness, the Compensation Committee determined the level of achievement of each NEO s individual performance goals as follows:

Name	Individual Goals	Individual Achievement	Individual Achievement Percentage
Michael S. Ostrach	1. Meet key financial objectives, including securing adequate financing to support business operations, establish and implement accounting policies and controls related to HEPLISAV-B commercialization, complete implementation of major IT requirements, optimize processes for managing financial reporting. 2. Develop business and communications strategies that are implementable and target the right opportunities. 3. Optimize internal IP function and file strategic patents related to oncology assets.	Mr. Ostrach exceeded his individual goals by, among other things: Managing our financial strategy, implementing new processes and securing debt financing which was critical to funding the launch of HEPLISAV-B and our clinical trials; Implementing accounting policies and controls to support commercialization of HEPLISAV-B; Hiring and integrating a VP of Investor Relations and Corporate Communications to enable expanding and deepening both investor relations and corporate communications; and Securing patents, including pertaining to Heplisav-B (method of use) and DV281 (composition of matter) and development function and IP needs.	107%
Robert L. Coffman, Ph.D.	1. Evaluate combinations for possible 2019 DV281 studies. 2. Advance preclinical and clinical vaccine and oncology programs. 3. Develop and implement strategies that will continue to broaden our scientific platform.	Dr. Coffman exceeded his individual goals by, among other things: Making significant progress with evaluations of combinations for possible DV281 studies; Overseeing the on-going Phase 1 study of DV281 for lung cancer; and	108%

4.	Advance business development initiatives.	Contributing significant time and effort on a wide range of business development initiatives, including finalizing a finalizing a full license agreement to access of TLR7/8.

Name	Individual Goals	Individual Achievement	Individual Achievement Percentage
Robert Janssen, M.D.	1. Lead efforts to obtain ACIP recommendation and initiation and continuation of various studies to enhance HEPLISAV-B adoption across indications. 2. Develop and implement clinical, regulatory and medical affairs strategies to advance immuno-oncology and vaccine programs in the clinic, including initiation of I-SPY-2 neoadjuvant study and developing DV281 combinations clinical plan for initiation. 3. Develop and advance Company s immuno-oncology presence and profile, including supporting business development goals and recruitment of key medical leadership positions.	Dr. Janssen exceeded his individual goals by, among other things: Obtaining ACIP recommendation for HEPLISAV-B and initiation of post-marketing studies; Advancing development activities for further vaccines; Contributing to the selection of SD-101 to inclusion in the I-SPY-2 neoadjuvant clinical study for breast cancer; and Recruiting a VP of Clinical Operations with extensive oncology development experience.	108%
David Novack	1. Ensure and execute against goals relating to commercial supply and distribution of HEPLISAV-B and process development and continuous improvement of HEPLISAV-B manufacturing. 2. Develop and implement manufacturing and quality strategies for advancing our immuno-oncology programs in the clinic. 3. Continue to implement quality assurance strategies required for a commercial organization. 4. Enhance efforts to grow the Company s overall vaccine business and vaccine collaborative efforts.	Mr. Novack exceeded his individual goals by, among other things: Successfully transitioning manufacturing at our Dusseldorf site to full commercial operations after being put on hold prior to FDA approval of HEPLISAV-B; Leading the company s successful effort to obtain FDA approval of the PFS presentation of HEPLISAV-B, resulting in increased customer and practitioner uptake; Successfully completing process development and manufacturing of clinical and registration batches to advance various oncology programs; and	120%

	Completing implementation of quality system automation and other improvements to support commercial product and advancing/expanding development portfolio.

After making these determinations regarding levels of corporate and individual performance achieved against the pre-established performance goals, the Compensation Committee (and the Board with respect to the CEO) reviewed and approved the cash incentive payouts noted below. As noted above, for the NEOs other than the CEO, the cash incentive payouts are based 50% on achievement of corporate goals and 50% on achievement of individual goals. There were no changes to the NEOs target annual cash incentive percentages between 2017 and 2018.

	2018 Target Annual Cash Incentive		2018 Actual Annual Cash Incentive Paid				
			Achievement of Corporate Goals		Achievement of Individual Goals		
Name	% of Base Salary	$	% of Target Annual Cash Incentive	$*	% of Target Annual Cash Incentive	$*	Total*
Eddie Gray	60%	$ 372,600	90%	$ 335,340	N/A	N/A	$ 335,340
Michael S. Ostrach	50%	$ 219,938	45%	$ 98,972	54%	$ 117,667	$ 216,639
Robert L. Coffman, Ph.D.	50%	$ 241,567	45%	$ 108,705	54%	$ 130,446	$ 239,151
Robert Janssen, M.D.	50%	$ 219,000	45%	$ 98,550	54%	$ 118,260	$ 216,810
David F. Novack	50%	$ 200,850	45%	$ 90,383	60%	$ 120,510	$ 210,893

* Amounts are rounded to the nearest dollar

Other Executive Compensation Matters

Equity Compensation Policies

Our Compensation Committee approves equity awards for NEOs and authorizes the CEO to approve equity awards for all other employees based on approved pools for annual and new hire grants. NEO awards are approved either at a regularly-scheduled meeting of the Compensation Committee or by unanimous written consent. The effective date of the grant is generally the date of the meeting, or the date the last person executes the unanimous written consent.

The exercise price of stock options is not less than the closing price of our common stock on the Nasdaq Capital Market on the grant date of the stock option. We have no practice of timing grants of stock options or restricted stock awards to coordinate with the release of material non-public information, and we have not timed the release of material non-public information for purposes of affecting the value of the compensation awarded to our NEOs or any other employee.

We encourage our NEOs to hold a significant equity interest in our Company, but we have not set specific stock ownership guidelines.

We have a policy that prohibits our executive officers, directors and other members of management from engaging in short sales, transactions in put or call options, hedging transactions or other inherently speculative transactions with respect to our stock.

Tax Effects of Executive Compensation

Under Section 162(m) of the Internal Revenue Code of 1986, as amended (the Code), compensation paid to any publicly held corporation s covered employees that exceeds $1 million per taxable year for any covered employee is generally non-deductible.

Prior to the enactment of the Tax Cuts and Jobs Act, Section 162(m) of the Code (Section 162(m)) provided a performance-based compensation exception, pursuant to which the deduction limit under Section 162(m) did not apply to any compensation that qualified as performance-based compensation under Section 162(m). Pursuant to the Tax Cuts and Jobs Act, the performance-based compensation exception under Section 162(m) was repealed with respect to taxable years beginning after December 31, 2017, except that certain transition relief is provided for compensation paid pursuant to a written binding contract which was in effect on November 2, 2017 and which is not modified in any material respect on or after such date.

Compensation paid to each of the Company s covered employees in excess of $1 million per taxable year generally will not be deductible unless it qualifies for the performance-based compensation exception under Section 162(m) pursuant to the transition relief described above. Because of certain ambiguities and uncertainties as to the application and interpretation of Section 162(m), as well as other factors beyond the control of the Compensation Committee, no assurance can be given that any compensation paid by the Company will be eligible for such transition relief and be deductible by the Company in the future. Although the Compensation Committee will continue to consider tax implications as one factor in determining executive compensation, the Compensation Committee also looks at other factors in making its decisions and retains the flexibility to provide compensation for the Company s named executive officers in a manner consistent with the goals of the Company s executive compensation program and the best interests of the Company and its stockholders, which may include providing for compensation that is not deductible by the Company due to the deduction limit under Section 162(m). The Compensation Committee also retains the flexibility to modify compensation that was initially intended to be exempt from the deduction limit under Section 162(m) if it determines that such modifications are consistent with the Company s business needs.

The Compensation Committee also considers the impact of Section 409A of the Code, and in general, our executive plans and programs are designed to comply with the requirements of that section so as to avoid possible adverse tax consequences that may result from non-compliance.

Accounting Considerations

The accounting impact of our compensation programs is one of many factors that the Compensation Committee considers in determining the structure and size of our executive compensation programs. In general, the Company accounts for equity compensation paid to our employees under the Financial Accounting Standards Board Accounting Standards Codification Topic 718, Compensation Stock Compensation, or ASC 718, which requires us to estimate and record an expense over the service period of the equity award, and our cash compensation is recorded as an expense at the time the obligation is accrued.

Compensation Recovery Policy

Amounts paid and awards granted under our 2011 and 2018 Plans will be subject to recoupment in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act and any applicable regulations under the Act, any clawback policy the Company adopts or as is required by applicable law. In addition, as a public company subject to the provisions of Section 304 of the Sarbanes-Oxley Act of 2002, if we are required as a result of misconduct to restate our financial results due to our material noncompliance with any financial reporting requirements under the federal securities laws, our chief executive officer and chief financial officer may be legally required to reimburse us for any bonus or other incentive-based or equity-based compensation they receive. In addition, we will comply with the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act once the SEC final regulations on the subject become effective.

Compensation Risk Analysis

During fiscal 2018, our Compensation Committee reviewed our compensation policies as generally applicable to our employees in order to determine whether any such programs were likely to present a material risk to the Company. As part of its assessment, the Compensation Committee considered, among other things, the allocation of compensation among base salary and short- and long-term compensation, our approach to establishing Company-wide and individual financial, operational and other performance targets, and the nature of our key performance metrics. As a result of this review and analysis, the Compensation Committee s determined that our policies and programs do not encourage excessive or inappropriate risk taking, and that the level of risk that they do encourage is not reasonably likely to have a material adverse effect on the Company.

Report of the Compensation Committee of the Board of Directors on Executive Compensation

In early 2019, the Compensation Committee discussed with management the Compensation Discussion and Analysis, contained in this proxy statement. Based on this review and discussion, the Compensation Committee has recommended to the Board that the Compensation Discussion and Analysis be included in this proxy statement and incorporated into our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

The material in this report is not soliciting material, is furnished to, but not deemed filed with, the SEC and is not deemed to be incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, other than the Company s Annual Report on Form 10-K, where it shall be deemed to be furnished, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

Ms. Peggy V. Phillips, Chairperson

Dr. Francis R. Cano, Ph.D.

Dr. Daniel Kisner, M.D.

Summary Compensation Table

The following table shows for the fiscal years ended December 31, 2018, 2017 and 2016, compensation awarded to or paid to, or earned by, NEOs.

Name and Principal Position	Year	Salary	Stock Awards[(1)]	Option Awards[(2)]	Non-Equity Incentive Compensation[(3)]	All Other Compensation[(4)]	Total
Eddie Gray	2018	$ 621,000	$	$ 3,790,500	$ 335,340	$ 2,000	$ 4,748,840
CEO and Director	2017	$ 600,000	$ 2,094,113	$	$ 450,000	$ 2,000	$ 3,146,113
	2016	$ 600,000	$	$ 2,345,840	$	$ 2,000	$ 2,947,840
Michael S. Ostrach	2018	$ 439,875	$	$ 2,904,000	$ 216,639	$ 2,000	$ 3,562,514
Senior Vice President, Chief Financial	2017	$ 425,000	$ 1,126,060	$	$ 265,625	$ 2,000	$ 1,818,685
Officer, Chief Business Officer	2016	$ 425,000	$	$ 703,752	$	$ 2,000	$ 1,130,752
Robert L. Coffman, Ph.D.	2018	$ 483,134	$	$ 2,904,000	$ 239,151	$ 2,000	$ 3,628,285
Senior Vice President and Chief Scientific	2017	$ 466,796	$ 1,223,041	$	$ 297,582	$ 2,000	$ 1,989,419
Officer	2016	$ 466,796	$	$ 703,752	$	$ 2,000	$ 1,172,548
Robert Janssen, M.D.	2018	$ 438,000	$	$ 1,083,000	$ 216,810	$ 2,000	$ 1,739,810
Chief Medical Officer and Senior Vice	2017	$ 400,000	$ 1,068,056	$	$ 260,000	$ 2,000	$ 1,730,056
President, Clinical Development, Medical and Regulatory Affairs	2016	$ 400,000	$	$ 670,240	$	$ 2,000	$ 1,072,240
David F. Novack	2018	$ 401,700	$	$ 1,083,000	$ 210,893	$ 2,000	$ 1,697,593
Senior Vice President, Operations and	2017	$ 386,250	$ 1,036,148	$	$ 241,406	$ 2,000	$ 1,665,804
Quality	2016	$ 386,250	$	$ 536,192	$	$ 2,000	$ 924,442

(1) Represents the aggregate grant date fair value of RSUs granted in the fiscal year in accordance with ASC 718. See note 15 of our Notes to Consolidated Financial Statements in our annual report on Form 10-K filed with the SEC on February 27, 2019 for a discussion of assumptions we made in determining the compensation costs included in this column. With regard to RSUs with performance-based vesting, the grant date fair value included in the table above assumes the highest level of achievement had been met.

(2) Except as otherwise set forth in this footnote, represents the aggregate grant date fair value of option awards granted in the fiscal year in accordance with ASC 718. A portion of the options granted in fiscal year 2018 are subject to performance-based vesting, as described in the Compensation Discussion and Analysis. The grant date fair value for such options with performance-based vesting is based on the probable outcome of the performance conditions as of the grant date. The maximum potential value of such options with performance-based vesting, assuming the highest level of performance achievement is as follows:

Name	Options with Performance-Based Vesting 2018
Eddie Gray	$ 758,100
Michael S. Ostrach	$ 216,600
Robert L. Coffman, Ph.D.	$ 216,600
Robert Janssen, M.D.	$ 216,600
David F. Novack	$ 216,600

For a further discussion of assumptions we made in determining the compensation costs included in this column, see note 15 of our Notes to Consolidated Financial Statements in our annual report on Form 10-K filed with the SEC on February 27, 2019.

(3) Represents the annual incentive bonuses earned pursuant to our annual incentive bonus plan for services rendered in the fiscal year. For further discussion see the section entitled Compensation Discussion and Analysis 2018 Executive Compensation Decisions 2018 Annual Incentive Program Structure, Goals and Payout Decision.

(4) Represents $2,000 401(k) matching contribution for each NEO made by the Company in the fiscal year.

Grants Of Plan Based Awards

The following table shows certain information regarding grants of plan-based awards to NEOs during the fiscal year ended December 31, 2018.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards Target[1] ($)	Estimated Future Payouts Under Equity Incentive Plan Awards Target[2] (#)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards ($/Share)	Grant Date Fair Value of RSU and Option Awards[3] ($)
Eddie Gray		$ 372,600				
	2/1/2018			280,000	$ 16.45	$ 3,032,400
	2/1/2018		70,000		$ 16.45	$ 758,100
Michael S. Ostrach		$ 219,938				
	2/1/2018			80,000	$ 16.45	$ 866,400
	2/1/2018		20,000		$ 16.45	$ 216,600
	3/21/2018			150,000	$ 18.40	$ 1,821,000
Robert L. Coffman, Ph.D.		$ 241,567				
	2/1/2018			80,000	$ 16.45	$ 866,400
	2/1/2018		20,000		$ 16.45	$ 216,600
	3/21/2018			150,000	$ 18.40	$ 1,821,000
Robert Janssen, M.D.		$ 219,000				
	2/1/2018			80,000	$ 16.45	$ 866,400
	2/1/2018		20,000		$ 16.45	$ 216,600
David F. Novack		$ 200,850				
	2/1/2018			80,000	$ 16.45	$ 866,400
	2/1/2018		20,000		$ 16.45	$ 216,600

(1) Represents the target cash incentive award in fiscal year 2018 as further described under Compensation Discussion and Analysis Elements of Executive Compensation ; our annual incentive program does not specify minimum or maximum levels.

(2) Represents the number of options granted in the fiscal year that are subject to performance-based vesting, as described in the Compensation Discussion and Analysis, and do not include minimum or maximum levels.

(3) Represents the aggregate grant date fair value of options granted in fiscal year 2018 in accordance with ASC 718. See Note 15 of our Notes to Consolidated Financial Statements in our annual report on Form 10-K filed with the SEC on February 27, 2019 for a discussion of the assumptions we made in determining the compensation costs included in this column. With regard to options with performance-based vesting, the grant date fair value assumes the probable outcome of the conditions, as reported in the Summary Compensation Table. For further discussion of these performance-based options, see the section entitled Compensation Discussion and Analysis 2018 Executive Compensation Decisions Long-Term Equity Incentive Awards.

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Narrative Disclosure to Summary Compensation Table and Grants of Plan Based Awards Table

The material terms of NEOs annual compensation and the explanations of the amounts of base salary, annual cash-based incentives, and equity-based awards in proportion to total compensation are described under Compensation Discussion and Analysis in this proxy statement. Our severance and change in control benefits are described under Summary of Change in Control and Involuntary Termination Arrangements in this proxy statement.

As discussed in the Compensation Discussion and Analysis, the fiscal year 2018 cash incentive amounts were paid pursuant to the annual cash incentive compensation program, based on the achievement of certain corporate and individual performance goals. Equity-based awards were granted in 2018 under our 2018 Plan and represent a mix of time based and performance based options, as described in the Compensation Discussion and Analysis.

Outstanding Equity Awards At Fiscal Year End

The following table shows certain information regarding outstanding equity awards for NEOs as of December 31, 2018.

		Option Awards						Stock Awards			
Name		Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Vesting Commencement Date	Option Expiration Date	Number of Shares or Units that Have Not Vested (#)	Market Value of Stock that Have Not Vested ($)(1)	Equity Incentive Plan Awards: Number of Unearned Shares or Other Rights that Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares or Other Rights that Have Not Vested ($)
Eddie Gray		150,000			$ 22.10	5/1/2013	4/30/2023				
		75,001			$ 17.40	1/31/2014	1/30/2024				
		150,000			$ 17.10	2/4/2014	2/3/2024				
	(2)	215,624	9,376		$ 16.00	2/9/2015	2/8/2025				
	(3)	264,444	15,556		$ 21.99	2/4/2016	2/3/2023				
	(4)							75,000	$ 686,250		
	(5)							74,000	$ 677,100		
	(6)							75,000	$ 686,250		
	(3)		280,000		16.45	2/1/2018	1/31/2025				
	(7)			70,000	16.45		1/31/2025				
Michael S. Ostrach		3,750			$ 5.40	3/10/2009	3/9/2019				
		2,673			$ 15.80	2/19/2010	2/18/2020				
		25,000			$ 31.40	1/6/2011	1/5/2021				
		18,000			$ 34.80	1/31/2012	1/30/2022				
		20,000			$ 30.80	2/5/2013	2/4/2023				
		27,000			$ 17.10	2/4/2014	2/3/2024				
	(2)	64,208	2,792		$ 16.00	2/9/2015	2/8/2025				
	(2)	24,166	4,834		$ 28.45	8/27/2015	8/26/2025				
	(3)	79,333	4,667		$ 21.99	2/4/2016	2/3/2023				
	(4)							49,804	$ 455,707		
	(5)							17,000	$ 155,550		
	(6)							49,804	$ 455,707		
	(3)		80,000		16.45	2/1/2018	1/31/2025				
	(7)			20,000	16.45		1/31/2025				
	(8)		150,000		18.4	3/21/2018	3/20/2025				