

**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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

NewLink Genetics 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:

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- Fee paid previously with preliminary materials.
- Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

6. Amount Previously Paid:

7. Form, Schedule or Registration Statement No.:

8. Filing Party:

9. Date Filed:

NEWLINK GENETICS CORPORATION
2503 South Loop Drive
Ames, IA 50010

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON MAY 9, 2019

Dear Stockholder:

You are cordially invited to attend the 2019 Annual Meeting of Stockholders (the "Annual Meeting") of **NEWLINK GENETICS CORPORATION**, a Delaware corporation (the "Company"). The Annual Meeting will be held on Thursday, May 9, 2019 at 9:00 a.m. local time at the offices of NewLink Genetics Corporation, 2503 South Loop Drive, Suite 5100, Ames, IA 50010 for the following purposes:

1. To elect the Board's nominees for director, Matthew L. Sherman, M.D. and Nicholas N. Vahanian, M.D., to serve until the 2022 Annual Meeting of Stockholders.
2. To approve, on a non-binding, advisory basis, the compensation of our named executive officers, as disclosed in the proxy statement accompanying this notice.
3. To amend the Company's 2009 Equity Incentive Plan to, among other things, extend the term of the 2009 Equity Incentive Plan.
4. To approve a stock option exchange program, pursuant to which employees and directors may exchange eligible stock options for new stock options with an exercise price equal to the fair market value of the Company's common stock at the time of the exchange.
5. To approve stock option grants to Chief Executive Officer Charles J. Link, Jr., M.D. and President Nicholas N. Vahanian, M.D.
6. To ratify the selection by the Audit Committee of the Board of Directors of KPMG LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2019.
7. To conduct any other business properly brought before the meeting.

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

The record date for the Annual Meeting is March 28, 2019. Only stockholders of record at the close of business on that date may vote at the meeting or any adjournment thereof. All stockholders of NewLink Genetics Corporation are invited to attend the Annual Meeting in person. Whether or not you expect to attend the Annual Meeting, please vote your shares as promptly as possible using the enclosed proxy card, or via the Internet or telephone as instructed in the enclosed materials, in order to ensure your representation at the Annual Meeting.

By Order of the Board of Directors

/s/ Carl W. Langren

Carl W. Langren
Chief Financial Officer

Ames, Iowa
April 5, 2019

Important Notice Regarding the Availability of Proxy Materials for the Shareholder Meeting to be Held on May 9, 2019:

You are cordially invited to attend the meeting in person. Whether or not you expect to attend the meeting, please complete, date, sign and return the enclosed proxy, or vote over the telephone or the internet, so that your shares may be voted in accordance with your wishes and in order that the presence of a quorum may be assured. 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. Please date and sign the enclosed proxy and return it promptly in the enclosed envelope, or vote over the telephone or Internet. Your vote is important.

You may vote by proxy by completing and mailing the enclosed proxy card. If you submit a proxy card, we will vote your shares as you direct. If you submit a proxy card without giving specific voting instructions for a particular proposal or nominee, those shares will be voted as recommended by our Board of Directors with respect to such proposal or nominee.

You may also vote by proxy via the Internet by going to the website <http://www.envisionreports.com/NLNK>, and following the instructions provided there, or by telephone, by calling the following number: 1-800-652-VOTE (8683) using a touch-tone phone and follow the recorded instructions. You will be asked to provide the company number and control number found on the proxy card. Your proxy card, Internet or telephone vote must be received by 11:59 p.m., Eastern Time, on May 8, 2019, to be counted.

We intend to provide definitive copies of our proxy materials to our stockholders on or about April 5, 2019. We will make all of our proxy materials available on the Internet at <http://www.envisionreports.com/NLNK>, beginning on or about April 5, 2019, and permit voting via the Internet and by telephone as of that date.

If your shares are held by a broker, bank, or other agent, you are considered the beneficial owner of those shares, and your shares are held in “street name.” If you hold your shares in “street name” you will receive instructions from your broker, bank or other agent describing how to vote your shares. If you hold shares in “street name” and do not receive instructions on how to vote your shares, you should contact your broker, bank or other agent promptly and request this information.

Even if you have voted by proxy via one of the procedures listed above, you may still vote in person if you attend the Annual Meeting. Please note, however, that if your shares are held of record by a broker, bank or other agent and you wish to vote at the Annual Meeting, you must obtain a proxy issued in your name from that record holder.

NEWLINK GENETICS CORPORATION

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NEWLINK GENETICS CORPORATION
2503 South Loop Drive
Ames, Iowa 50010

PROXY STATEMENT
FOR THE 2019 ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD ON MAY 9, 2019

NewLink Genetics Corporation, sometimes referred to as the Company, NewLink, we, us or our, is furnishing this proxy statement, or Proxy Statement, to holders of our common stock. Proxies are being solicited on behalf of the Board of Directors of NewLink, which we refer to as our Board, to be used at NewLink's 2019 Annual Meeting of Stockholders, or Annual Meeting, to be held on May 9, 2019 at 9:00 a.m. local time at our offices at 2503 South Loop Drive, Suite 5100, Ames, IA 50010 and at any postponement or adjournment thereof, for the purposes set forth in the Notice of Annual Meeting of Stockholders.

NewLink is delivering a "full set" of our proxy materials by mail to all of our stockholders of record as of the close of business on March 28, 2019, the Record Date. Our proxy materials include the Notice of Annual Meeting, or the Notice, this Proxy Statement and a proxy card, which we refer to collectively as the Proxy Materials. We intend to provide definitive copies of our Proxy Materials to our stockholders on or about April 5, 2019. In addition to mailing our Proxy Materials, we will also provide access to our Proxy Materials over the Internet at <http://www.envisionreports.com/NLNK>, by April 5, 2019. The Notice and the Proxy Statement instruct you on how to access and review all of the important information contained in the Proxy Materials via the Internet. The Notice and the Proxy Statement also instruct you on how you may submit your vote by mail, the Internet, toll-free number, or in person at the Annual Meeting.

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Why am I receiving this proxy statement?

You are receiving this proxy statement because you have been identified as a holder of the Company's common stock as of the Record Date.

How do I attend the Annual Meeting?

The Annual Meeting will be held on Thursday, May 9, 2019 at 9:00 a.m. local time at the principal executive offices of NewLink Genetics Corporation, 2503 South Loop Drive, Suite 5100, Ames, IA 50010. Directions to the meeting are posted on the internet at <http://www.newlinkgenetics.com/contact/>. Information on how to vote in person at the Annual Meeting is discussed below. However, you do not need to attend the meeting to vote your shares. Instead, you may simply complete, sign and return the enclosed proxy card, or follow the instructions below to submit your proxy over the telephone or through the Internet.

Who can vote at the Annual Meeting?

Only stockholders of record as of the Record Date will be entitled to vote at the Annual Meeting. On the Record Date, there were 37,276,102 shares of common stock outstanding and entitled to vote.

Stockholder of Record: Shares Registered in Your Name

If on March 28, 2019 your shares were registered directly in your name with our transfer agent, Computershare Shareowner Services LLC, 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 meeting, we urge you to vote by proxy over the telephone or on the internet as instructed below, or 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 March 28, 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." 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 in accordance with the instructions you have received from your brokerage firm, bank, dealer or other similar organization. You are also invited to attend the 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?

There are six matters scheduled for a vote:

1. Election of the Board of Directors' nominees for director, Matthew L. Sherman, M.D. and Nicholas N. Vahanian, M.D., to serve until the 2022 Annual Meeting of Stockholders.;
2. Advisory approval of the compensation of our named executive officers, as disclosed in this proxy statement in accordance with SEC rules;
3. Amendment of Our 2009 Equity Incentive Plan to, among other things, extend the term of the 2009 Equity Incentive Plan;
4. Stock Option Exchange Program pursuant to which employees and directors may exchange eligible stock options for new stock options with an exercise price equal to the fair market value of the Company's common stock at the time of the exchange;
5. Option Grants to Our CEO Charles J. Link, Jr., M.D. and President Nicholas N. Vahanian, M.D.; and
6. Ratification of the selection, by the Audit Committee of our Board, of KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019.

What if another matter is properly brought before the meeting?

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

How do I vote?

With respect to Proposal No. 1 (Election of Directors), you may either vote "For" all the nominees to our 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:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote in person at the Annual Meeting, vote by proxy over the telephone, vote by proxy through the internet, or vote by proxy using the enclosed proxy card. Whether or not you plan to attend the meeting, we urge you to vote by proxy to ensure that your vote is counted. You may still attend the 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.
- 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 meeting, we will vote your shares as you direct.
- To vote over the telephone, dial toll-free 1-800-652-VOTE (8683) using a touch-tone phone and follow the recorded instructions. You will be asked to provide the company number and control number from the enclosed proxy card. Your telephone vote must be received by 11:59 p.m., Eastern Time, on May 8, 2019 to be counted.
- To vote through the internet, go to <http://www.envisionreports.com/NLNK> to complete an electronic proxy card. You will be asked to provide the company number and control number from the enclosed proxy card. Your internet vote must be received by 11:59 p.m., Eastern Time, on May 8, 2019 to be counted.

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

If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a voting instruction form accompanying the proxy materials containing voting instructions from that organization rather than from us. Simply follow the voting instructions in the Notice 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 or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

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

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 March 28, 2019. Common stock is the only class of voting securities currently outstanding and entitled to vote.

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 (1) by completing and returning your proxy card, (2) by telephone, (3) through the internet or (4) 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 New York Stock Exchange (NYSE) 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 New York Stock Exchange, "non-routine" matters are matters that may substantially affect the rights or privileges of shareholders, such as mergers, shareholder proposals, elections of directors (even if not contested), executive compensation (including any advisory shareholder votes on executive compensation and on the frequency of shareholder votes on executive compensation), and certain corporate governance proposals, even if management-supported. These rules apply to brokers holding our shares even though our common stock is traded on the NASDAQ Global Market. Accordingly, your broker or nominee may not vote your shares on Proposal Nos. 1 (Election of Directors), 2 (Advisory Vote on Compensation of Our Named Executive Officers), 3 (Amendment to Our 2009 Equity Incentive Plan), 4 (Stock Option Exchange Program) or 5 (Option Grants to Our CEO and President) without your instructions, but may vote your shares on Proposal No. 6 (Ratification of Selection of KPMG LLP as Our Independent Registered Public Accounting Firm) even in the absence of your instruction.

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

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, "For" the election of the nominees for director, "For" the advisory approval of executive compensation, "For" amending our 2009 Equity Incentive Plan, "For" the Stock Option Exchange Program, "For" the stock option grants for our CEO and President, and "For" ratification of the selection, by the Audit Committee of our Board, of KPMG LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2019. If any other matter is properly presented at the meeting, your proxyholder (one of the individuals named on your proxy card) will vote your shares using his or her best judgment.

Who is paying for this proxy solicitation?

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

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

If you receive more than one set of Proxy Materials, your shares may be registered in more than one name or in different accounts. For example, you may own some shares directly as a stockholder of record and other shares through a broker, or you may own shares through more than one broker. In these situations, you will receive multiple sets of proxy materials. You must complete, sign, date and return all of the proxy cards or follow the instructions for any alternative voting procedures on each of the proxy cards you receive in order to vote all of the shares you own. Each proxy card you receive will come with its own postage-paid return envelope; if you vote by mail, make sure you return each proxy card in the return envelope that accompanied that proxy card.

Can I change my vote after submitting my proxy?

Stockholder of Record: Shares Registered in Your Name

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 the following ways:

- You may submit another properly completed proxy card with a later date;
- You may grant a subsequent proxy by telephone or through the internet;
- You may send a timely written notice that you are revoking your proxy to NewLink Genetics Corporation's Secretary at 2503 South Loop Drive, Suite 5100, Ames, IA 50010; or
- You may attend the Annual Meeting and vote in person (simply attending the meeting will not, by itself, revoke your proxy).

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

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

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

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 and received by December 7, 2019 to Corporate Secretary, NewLink Genetics Corporation, 2503 South Loop Drive, Ames, Iowa 50010. If you wish to submit a director nomination or a proposal at next year's annual meeting that is not to be included in next year's proxy materials, you must do so by no later than the close of business on February 8, 2020, nor earlier than the close of business on January 9, 2020, and you must comply with the requirements of Section 5(b) in the our Bylaws, including submitting written notice to our Corporate Secretary as set forth above. However, if the date of next year's annual meeting is more than 30 days before or more than 30 days after May 9, 2020, then we must receive your notice no earlier than the close of business on the one hundred twentieth (120th) day prior to such meeting and no later than the close of business on the later of the ninetieth (90th) day prior to such meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. You are also advised to review our bylaws, which contain additional requirements regarding advance notice of stockholder proposals and director nominations.

What happens if I do not provide instructions on how to vote or if other matters are presented for determination at the Annual Meeting?

If you are a stockholder of record and return your proxy card without instructions, the persons named as proxy holders on the proxy card will vote in accordance with the recommendations of the Board of Directors.

If you are a beneficial owner as noted above you generally cannot vote your shares directly and must instead instruct your broker, trustee, bank or nominee how to vote your shares using the voting instructions form provided by that intermediary. If you do not provide voting instructions, whether your shares can be voted by your broker, bank or nominee depends on the type of item being considered.

- **Non-Discretionary Items.** If you do not provide voting instructions for any of the non-discretionary items at the Annual Meeting, your broker, bank or nominee cannot vote your shares, resulting in a "broker non-vote." All items of business other than Proposal No. 6 (Ratification of Selection of KPMG LLP as Our Independent Registered Public Accounting Firm) are non-discretionary items. Shares constituting broker non-votes will be counted as present for the purpose of

determining a quorum at the Annual Meeting, but generally are not counted or deemed to be present in person or by proxy for the purpose of voting on any of the non-discretionary items.

- **Discretionary Items.** Even if you do not provide voting instructions, your broker, bank or nominee may vote in its discretion on Proposal No. 6 (Ratification of Selection of KPMG LLP as Our Independent Registered Public Accounting Firm) because it is a discretionary item.

What items are being voted upon, how does the Board recommend that you vote, and what are the standards for determining whether an item has been approved?

Proposal Number	Proposal Description	Board Recommendation	Vote Required for Approval	Effect of Abstentions	Effect of Broker Non-Vote
1	Election of Directors	FOR each director nominee	Nominees receiving the most "For" votes	No effect	None
2	Advisory Vote on Compensation of Our Named Executive Officers	FOR	"For" votes from a majority of the votes cast	Against	None
3	Amendment of Our 2009 Equity Incentive Plan	FOR	"For" votes from a majority of the votes cast*	Against	None
4	Stock Option Exchange Program	FOR	"For" votes from a majority of the votes cast**	Against	None
5	Option Grants to Our CEO and President	FOR	"For" votes from a majority of the votes cast***	Against	None
6	Ratification of Selection of KPMG LLP as Our Independent Registered Public Accounting Firm	FOR	"For" votes from a majority of the votes cast	Against	Not applicable
*	Approval for Proposal No. 3 (Amendment of Our 2009 Equity Incentive Plan) shall require the approval of a majority of the total votes of shares of NewLink common stock cast that are not owned, beneficially or of record, by our non-employee directors, in the interest of obtaining a disinterested vote of our stockholders.				
**	Approval for Proposal No. 4 (Stock Option Exchange Program) shall require the approval of a majority of the total votes of shares of NewLink common stock cast that are not owned, beneficially or of record, by our employees and directors. As part of the vote on this proposal, our stockholders are asked to confirm if they were an employee or director of the Company as of the Record Date. If a stockholder confirms that they were an employee or director of the Company as of the Record Date, such votes will not be voted on Proposal No. 4 in the interest of obtaining a disinterested vote of our stockholders.				
***	Approval for Proposal No. 5 (Option Grants to our CEO and President) shall require the approval of a majority of the total votes of shares of NewLink common stock cast that are not owned, beneficially or of record, by Dr. Charles J. Link, Jr. and Dr. Nicholas N. Vahanian, in the interest of obtaining a disinterested vote of our stockholders.				

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding a majority of the outstanding shares entitled to vote are present at the meeting in person or represented by proxy. On the Record Date, there were 37,276,102 shares outstanding and entitled to vote. Thus, the holders of 18,638,052 shares must be present in person or represented by proxy at the meeting to have a quorum.

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

How can I find out the results of the voting at the annual meeting?

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

PROPOSAL 1

ELECTION OF DIRECTORS

NewLink Genetics Corporation's Board is divided into three classes. Each class consists, as nearly as possible, of one-third of the total number of directors, and each class has a three-year term. Vacancies on our Board may be filled only by persons elected by a majority of the remaining directors. A director elected by our 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 duly elected and qualified.

Our Board presently has seven members. There are two directors in the class whose term of office expires in 2019, each of whom has been nominated for re-election. Nicholas N. Vahanian, M.D. currently serves on our Board and was previously elected by the stockholders in 2016. Matthew L. Sherman, M.D. currently serves on our Board and was elected by our Board to fill a vacancy in April 2018. If elected at the Annual Meeting, each nominee would serve until the 2022 Annual Meeting of Stockholders and until his successor has been duly elected and qualified, or, if sooner, until the director's death, resignation or removal.

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. If a choice is specified on the proxy card by a stockholder, their shares will be voted as specified. If a choice is not specified on the proxy card, and authority to do so is not withheld, the shares will be voted "FOR" the election of nominees named below. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the nominees named below. If any nominee becomes unavailable for election as a result of an unexpected occurrence, shares that would have been voted for that nominee will instead be voted for the election of a substitute nominee proposed by us. Each person nominated for election has agreed to serve if elected. Our management has no reason to believe that any nominee will be unable to serve.

Class I Director Nominees

Below is a brief biography of each nominee and each director whose term will continue after the Annual Meeting, including the ages of each nominee and director as of April 1, 2019. Each individual listed below is nominated for election for a three-year term expiring at the 2022 Annual Meeting.

<u>Name of Nominee</u>	<u>Age</u>	<u>Position Held with Company</u>	<u>Committees</u>	<u>Director Since</u>
Nicholas N. Vahanian, M.D.	51	Director	None	2016
Matthew L. Sherman, M.D.	63	Director	Nominating and Corporate Governance Committee	2018

Nicholas N. Vahanian, M.D., age 51, a co-founder of our Company, has served as President of our Company since 2009. He served as Chief Medical Officer of the Company from 2001 until November 2017 and previously served as Chief Operations Officer of the Company from 2001 to 2011. Dr. Vahanian began his research career at the National Cancer Institute and subsequently worked at the National Center for Human Genome Research Institute, National Institute of Health. He attended St Bartholomew's and Royal London Hospital Medical College and earned his Medical Degree and subsequently completed a Molecular Oncology Fellowship at the John Stoddard Cancer Research Institute. Dr. Vahanian holds a B.S. in Biology from Virginia Commonwealth University and an MBA from the University of Notre Dame.

Our Board believes that Dr. Vahanian's experience with our Company as a founder and executive officer since inception and his extensive medical and scientific background provides important experience, expertise and leadership to our Board as our Company continues to grow.

Matthew L. Sherman, MD, age 63, has served as a member of our Board since April 2018. Most recently, Dr. Sherman was Executive Vice President and Chief Medical Officer of Acceleron Pharma Inc., a clinical-stage biopharmaceutical company researching and developing innovative compounds that engage the body's ability to regulate cellular growth and repair for the treatment of serious and rare diseases. Dr. Sherman joined Acceleron as Chief Medical Officer in May 2006 and became Executive Vice President in March 2015. Prior to joining Acceleron, Dr. Sherman was Senior Vice President and Chief Medical Officer at Synta Pharmaceuticals Corp. from 2004 to 2006. From 1991 to 2004, Dr. Sherman held various leadership positions at Wyeth-Ayerst Research and Genetics Institute (acquired by Wyeth/American Home Products in 1997) in Clinical Research and Development. Dr. Sherman received an SB degree in Chemistry from the Massachusetts Institute of Technology in Cambridge,

MA and an MD degree with Honors from Dartmouth Medical School in Hanover, NH. Dr. Sherman is board certified in Medical Oncology and Internal Medicine and held various clinical and teaching positions at Harvard Medical School with corresponding hospital appointments at the Dana-Farber Cancer Institute and Brigham and Women's Hospital, Boston, MA. Dr. Sherman serves on the Geisel School of Medicine at Dartmouth Board of Advisors and Alumni Council.

Our Board believes that Dr. Sherman's extensive scientific experience provides important experience and background necessary for him to serve as a member of our Nominating and Corporate Governance Committee.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF EACH DIRECTOR NOMINEE.

Class II Directors Continuing in Office Until the 2020 Annual Meeting of Stockholders

Charles J. Link, Jr., M.D., age 59, founded NewLink Genetics Corporation in 1999 and has served as Chairman of our Board and our Chief Scientific Officer since inception in 1999. He served as President from 2001 to 2009 and has served as Chief Executive Officer since 2003. From 1995 to November 2013, Dr. Link was a practicing oncologist at the Medical Oncology and Hematology Associates of Iowa. From 1995 to 2003, Dr. Link served as the Director of the John Stoddard Cancer Research Institute, which he co-founded. Dr. Link served as a Medical Oncology Clinical Fellow at the National Cancer Institute and National Institutes of Health from 1988 to 1991. Dr. Link attended the U.S. Air Force Academy from 1977 to 1980. Dr. Link holds a B.A. from Stanford University, an M.D. from Stanford University School of Medicine and is certified in Internal Medicine by the American Board of Internal Medicine and has previously been certified in Medical Oncology.

Our Board believes that Dr. Link's experience with our Company, as a founder and director since inception and as Chief Executive Officer since 2003, brings continuity to our Board. In addition, our Board believes that Dr. Link's extensive medical and scientific background and experience provides important experience, expertise and leadership as our Company continues to grow.

Thomas A. Raffin, M.D., age 72, has served as a member of our Board since 1999 and is currently our Board's Lead Independent Director. Dr. Raffin has spent 30 years on the faculty at Stanford University School of Medicine, where he is the Colleen and Robert Haas Professor Emeritus of Medicine and Biomedical Ethics. Over the past two decades, Dr. Raffin has worked extensively in the healthcare and medical device business sectors and was an advisor to Cell Therapeutics Inc. from 1993 to 1997, Broncus Technologies from 1997 to 2004, iMedica from 1998 to 2002, and Inhale Technologies from 1998 to 2001. He co-founded Rigel Pharmaceuticals, a publicly traded company, in 1996. In 2001, he co-founded Telegraph Hill Partners, a San Francisco life sciences private equity firm as a General Partner. Dr. Raffin has been a director of the following Telegraph Hill Partners private portfolio companies: AngioScore, Inc., Confirma, Inc., Freedom Innovations, LDR Holding Corporation, PneumRx, Inc., Akoya BioSciences, Inc. and InvisALERT Solutions. Dr. Raffin received a B.A. from Stanford University and an M.D. from Stanford University School of Medicine and did his medical residency at the Peter Bent Brigham Hospital (now Brigham and Women's Hospital) in Boston, MA.

Our Board believes that Dr. Raffin's extensive medical and business background and experience provides important experience in business operations and medical technology and provides the background necessary for him to serve as the Chair of our Compensation Committee and as a member of our Nominating and Corporate Governance Committee.

Class III Directors Continuing in Office Until the 2021 Annual Meeting of Stockholders

Chad A. Johnson, J.D., age 40, has served as a member of our Board since March 2018. Mr. Johnson is currently General Counsel at Stine Seed Company. From May 2015 to April 2017, Mr. Johnson was the Assistant Corporate Secretary and Senior Corporate Counsel for Renewable Energy Group, Inc., the largest supplier of advanced biofuels by volume in North America. In addition to his role as a corporate officer, Mr. Johnson was a senior in-house attorney for the company where he helped advance the company's strategic expansion into Europe and other merger and acquisition activities, managed the company's intellectual property portfolio and managed the legal aspects of the company's securities and public filings. From 2007 to April 2015, he spent eight years in roles of increasing responsibility at DuPont Pioneer, a subsidiary of DuPont and a global leading seed and agriculture biotechnology company. Mr. Johnson is admitted to practice law in the state of Iowa and before the United States Patent and Trademark Office. Mr. Johnson graduated from Iowa State University with a Master of Science in Crop Production and Physiology and received his J.D. from Drake University Law School.

Our Board and our Nominating and Corporate Governance Committee believes that Mr. Johnson's career at major biotechnology companies, service as a public company officer and experience overseeing various legal matters provides him with the background necessary for him to serve as a member of our Board and our Compensation Committee and our Nominating and Corporate Governance Committee.

Ernest J. Talarico, III, AIF, age 48, has served as a member of our Board since 1999. Mr. Talarico has worked for Mesirow Financial Holdings, Inc., a diversified financial services firm headquartered in Chicago, Illinois since 1998, where he has been a Senior Managing Director since December 2015. Prior to becoming Senior Managing Director, Mr. Talarico served as Managing Director from 2008 to 2015, Senior Vice President from 2005 to 2008, Vice President from 2003 to 2005 and Investment Executive from 1998 to 2003. Mr. Talarico specializes in financial planning and asset allocation, as well as other wealth accumulation and preservation strategies for individuals and businesses. Mr. Talarico sits on several boards and committees, including the Select Advisory Board and Committee and the Retirement Plan Advisory Investment Committee at Mesirow Financial and Benevolent Enabler, Inc., and the Advisory Board of Catholic Charities for the Archdiocese of Chicago. Mr. Talarico is also the Founder and Chairman of the Talarico Ataxia Open. Mr. Talarico holds a bachelor's degree from the University of Iowa as well as licenses in equities and options.

Our Board believes that Mr. Talarico's experience with our Company, as a director since inception and as a member of both our Compensation Committee and our Audit Committee of our Board, brings continuity to our Board. In addition, our Nominating and Corporate Governance Committee believes that Mr. Talarico's extensive experience in the investment management business provides important experience in corporate finance and investor relations and provides the background necessary for him to serve as a member of our Compensation Committee and our Audit Committee.

Lota S. Zoth, CPA, age 59, has served as a member of our Board and Chair of our Audit Committee since November 2012. Ms. Zoth currently serves on the Board of Directors of Spark Therapeutics, Inc., (NASDAQ: ONCE) Zymeworks, Inc. and Orexigen Therapeutics, Inc. In March 2018, Orexigen filed a voluntary petition under Chapter 11 of the Bankruptcy Code in the U.S. Bankruptcy Court for the District of Delaware. Ms. Zoth plans to remain on the Board of Directors for Orexigen until a plan of liquidation for Orexigen is approved by the U.S. Bankruptcy Court. She also previously served on the Board of Directors for nonprofit Aeras from 2011 to 2018, Circassia Pharmaceuticals, PLC from 2015 to 2019, Hyperion Therapeutics, Inc. from 2008 to May 2015 and Ikaria, Inc. from 2008 to 2014. Prior to her board service, Ms. Zoth served as Chief Financial Officer of MedImmune, Inc. from 2004 through 2007, and as its Corporate Controller from 2002 to 2004. Prior to that, Ms. Zoth was a financial executive at several companies, including Sodexo Marriott Services, Inc., PSINet Inc., Marriott International, Inc. and PepsiCo, Inc. Ms. Zoth began her career as an auditor at Ernst & Young, LLP. Ms. Zoth received a BBA in accounting, summa cum laude, from Texas Tech University.

Our Board believes that Ms. Zoth's experience with our Company, as a director since 2012 and as the current chair of our Audit Committee of our Board and a member of our Compensation Committee of our Board, brings continuity to our Board. In addition, our Nominating and Corporate Governance Committee believes that Ms. Zoth's extensive financial background and experience provides important experience in corporate finance, corporate management, and investor relations and provides the background necessary for her to serve as a member of our Audit Committee and our Compensation Committee.

INFORMATION REGARDING OUR BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Independence of our Board of Directors

In determining independence, our Board considers the definition of "independent" set forth in the listing standards of the NASDAQ Stock Market, or NASDAQ, as well as other factors that contribute to effective oversight and decision-making by our Board. Our independence standards are set forth in our Corporate Governance Guidelines on our website at www.newlinkgenetics.com in the "Investors & Media - Corporate Governance - Corporate Governance Guidelines" section. As required under the NASDAQ listing standards, a majority of the members of a listed company's board of directors must qualify as "independent," as affirmatively determined by our Board. Our Board consults with our counsel to ensure that our Board's determinations are consistent with relevant securities and other laws and regulations regarding the definition of "independent," including those set forth in pertinent listing standards of NASDAQ, as in effect from time to time.

Consistent with these considerations, after review of all relevant identified transactions or relationships between each director, or any of his or her family members and our Company, its senior management and its independent auditors, our Board has affirmatively determined that the following four directors who served on our Board in 2018 and continue to serve are independent directors within the meaning of the applicable NASDAQ listing standards: Mr. Johnson, Mr. Talarico, Ms. Zoth and Dr. Raffin. Our Board has also determined that 2019 appointee and nominee for election at the Annual Meeting Dr. Sherman is an independent director within the meaning of the applicable NASDAQ listing standards. In making its independence assessments, our Board found that none of these directors or nominees for director had a material or other disqualifying relationship with our Company.

Dr. Charles J. Link, Jr. and Dr. Nicholas N. Vahanian are not independent directors by virtue of their employment with our Company.

There are no family relationships between our directors, director nominees and executive officers.

Board Leadership

Our Board is currently chaired by the Chief Executive Officer of our Company, Dr. Charles J. Link, Jr. Our Board has appointed Dr. Raffin as Lead Independent Director.

Our Company believes that combining the positions of Chief Executive Officer and Chairman of our Board, which we refer to as the Chairman, helps to ensure that our Board and management act with a common purpose. We believe combining the positions of Chief Executive Officer and Chairman is appropriate for a biopharmaceutical company focused on drug development in that it enhances our Board's focus on our progress on scientific research, clinical trials and commercialization as inputs to developing and implementing strategy. Our Company believes that combining the positions of Chief Executive Officer and Chairman provides a single, clear chain of command to execute our strategic initiatives and business plans related to drug development and commercialization. In addition, our Company believes that a combined Chief Executive Officer/Chairman is well-positioned to act as a bridge between management and our Board, facilitating the regular flow of information. Our Company also believes that it is advantageous to have a Chairman with an extensive history with and knowledge of our Company (as is the case with our Chief Executive Officer) as compared to a relatively less informed independent Chairman at this stage in our development.

Our Board appointed Dr. Raffin as the Lead Independent Director to help reinforce the independence of our Board as a whole. The position of Lead Independent Director has been structured to serve as an effective balance to a combined Chief Executive Officer/Chairman: the Lead Independent Director is empowered, among other duties and responsibilities, to develop, together with the Chief Executive Officer, the agenda for meetings of our Board, to develop, together with committee chairs, the agendas for meetings of committees, to preside over Board meetings in the absence of the officers and to oversee our Board's annual evaluation of the Chief Executive Officer's performance.

Role of Our Board Directors on Risk Oversight

One of our Board's key functions is informed oversight of our risk management process. Our Board does not have a standing risk management committee, but rather administers this oversight function directly through our Board as a whole, as well as through various Board standing committees that address risks inherent in their respective areas of oversight. In particular, while our Board is responsible for monitoring and assessing strategic risk exposure, our Audit Committee has the responsibility to consider and discuss the major financial risk exposures and the steps management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. Our Audit Committee also monitors compliance with legal and regulatory requirements with respect to SEC regulations and NASDAQ listing standards, in addition to oversight of the performance of our accounting and financial reporting processes. Our Nominating and Corporate Governance Committee monitors the effectiveness of the corporate governance guidelines, including whether they are successful in preventing illegal or improper liability-creating conduct. Our Compensation Committee assesses and monitors whether any compensation policies and programs have the potential to encourage excessive risk-taking. The entire Board and its committees address risk management issues from time-to-time and meet at least annually with the employees responsible for risk management in the committees' respective areas of oversight. Both our Board as a whole and the various standing committees receive periodic reports from the employees responsible for risk management, as well as incidental reports as matters may arise. It is the responsibility of the committee chairs to report findings regarding material risk exposures to our Board as quickly as possible.

Meeting Attendance

Our Board met nine times during the last fiscal year. Our Audit Committee met four times during the 2018 fiscal year, our Compensation Committee met eight times during the 2018 fiscal year, and our Nominating and Corporate Governance Committee met five times. None of our directors attended fewer than 75% of the meetings of our Board or committee meetings of which he or she was a member.

It is our policy to encourage directors and nominees for director to attend the Annual Meeting. Seven of the eight directors continuing their service as members of our Board after the 2018 Annual Meeting of Stockholders attended the meeting.

Committees of our Board of Directors

The following table sets forth membership of each of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee as of March 15, 2019:

Name	Audit	Compensation	Nominating and Corporate Governance
Dr. Charles J. Link, Jr.			
Dr. Thomas A. Raffin	X	Chair	X
Mr. Ernest J. Talarico, III	X	X	
Dr. Matthew L. Sherman			X
Ms. Lota Zoth	Chair	X	
Dr. Nicholas N. Vahanian			
Mr. Chad A. Johnson		X	Chair

Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. Our Board has determined that, except as specifically described below, each current member of each committee meets the applicable NASDAQ rules and regulations regarding "independence" and that each member is free of any relationship that would impair his or her individual exercise of independent judgment with regard to the Company.

Below is a description of each committee of our Board.

Audit Committee

Our Audit Committee was established by our Board in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, to oversee our corporate accounting and financial reporting processes and audits of its financial statements. For this purpose, our Audit Committee performs several functions. Our Audit Committee evaluates the performance of and assesses the qualifications of the independent auditors; determines and approves the engagement of the independent auditors; determines whether to retain or terminate the existing independent auditors or to appoint and engage new independent auditors; reviews and approves the retention of the independent auditors to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent auditors on our audit engagement team as required by law; confers with management and the independent auditors regarding the effectiveness of internal controls over financial reporting; establishes procedures, as required under applicable law, for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters; and meets to review our annual audited financial statements and quarterly financial statements with management and the independent auditor, including a review of our disclosures in our Annual Report on Form 10-K under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Our Audit Committee is currently comprised of three directors: Ms. Zoth, Dr. Raffin and Mr. Talarico. Our Board has adopted a written Audit Committee charter that is available to stockholders on our website at www.newlinkgenetics.com in the "Investors & Media - Corporate Governance" section.

Our Board reviews the NASDAQ listing standards definition of independence for Audit Committee members on an annual basis and has determined that each current member of our Audit Committee meets the independence requirement (as independence is currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the NASDAQ listing standards).

Our Board has also determined that Ms. Zoth qualifies as an "audit committee financial expert," as defined in applicable SEC rules. Our Board made a qualitative assessment of Ms. Zoth's level of knowledge and experience based on a number of factors, including her formal education and her years of experience.

Compensation Committee

The Compensation Committee of our Board is currently comprised of four directors: Dr. Raffin, Mr. Talarico, Ms. Zoth and Mr. Johnson. All current members of our Compensation Committee are independent (as independence is currently defined in Rule 5605(d)(2) of the NASDAQ listing standards). Additionally, all current members of our Compensation Committee are "outside directors" for 162(m) purposes and non-employee directors under Rule 16b-3 of the Exchange Act. Our Board has adopted a written Compensation Committee charter that is available to stockholders on our website at www.newlinkgenetics.com in the "Investors & Media - Corporate Governance" section.

The purpose of our Compensation Committee is to discharge the responsibilities of our Board to oversee our compensation policies, plans and programs and to review and determine the compensation to be paid to our directors, executive officers and other senior management. The scope of authority and specific responsibilities of our Compensation Committee include:

- determining the compensation and other terms of employment of our executive officers and reviewing and approving corporate performance goals and objectives relevant to such compensation;
- evaluating and recommending to our Board the compensation plans and programs advisable for the Company, and evaluating and recommending the modification or termination of existing plans and programs;
- reviewing and approving the terms of any employment agreements, severance arrangements, change in control protections and any other compensatory arrangements for our executive officers;
- selecting, retaining and terminating compensation consultants to assist in its evaluation of executive and director compensation, including the sole authority to approve the consultant's reasonable fees and other retention terms; and
- reviewing and recommending to our Board the type and amount of compensation to be paid or awarded to members of our Board.

If we are no longer eligible for or elect not to provide scaled disclosure as a "smaller reporting company", our Compensation Committee would review with management our Compensation Discussion and Analysis and consider whether to recommend that it be included in proxy statements and other filings.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee of our Board is responsible for overseeing our corporate governance functions on behalf of our Board, making recommendations to our Board regarding corporate governance issues, identifying, reviewing and evaluating candidates to serve as directors of the Company consistent with criteria approved by our Board, reviewing and evaluating incumbent directors, recommending to our Board for selection candidates for election to our Board and making other recommendations to our Board regarding affairs relating to the directors of the Company, including director compensation.

Our Nominating and Corporate Governance Committee is currently comprised of three directors: Mr. Johnson, Dr. Raffin and Dr. Sherman. All current members of our Nominating and Corporate Governance Committee are independent (as independence is currently defined in Rule 5605(a)(2) of the NASDAQ listing standards). Our Board has adopted a written Nominating and Corporate Governance Committee charter that is available to stockholders on our website at www.newlinkgenetics.com in the "Investors & Media - Corporate Governance" section.

Our Nominating and Corporate Governance Committee believes that candidates for director should have certain minimum qualifications, including the ability to read and understand basic financial statements, being over 21 years of age and having the highest personal integrity and ethics. Our Nominating and Corporate Governance Committee also considers whether the candidate possesses the following factors among others: relevant expertise upon which to base advice and guidance to management, sufficient time to devote to the affairs of the Company, demonstrated excellence in his or her field, the ability to exercise sound business judgment and the commitment to rigorously represent the long-term interests of our stockholders. Candidates for director nominees are reviewed in the context of the current composition of our Board, the operating requirements of the Company and the long-term interests of stockholders. In conducting this assessment, our Nominating and Corporate Governance Committee typically considers diversity, age, skills and such other factors as it deems appropriate given the current needs of our Board and the Company to maintain a balance of knowledge, experience and capability. Our Nominating and Corporate Governance Committee does not have a policy regarding how it considers diversity in selecting candidates.

In the case of incumbent directors whose terms of office are set to expire, our Nominating and Corporate Governance Committee reviews these directors' overall service to the Company during their terms, including the number of meetings attended, level of participation, quality of performance and any relationships and transactions that might impair the directors' independence. Our Nominating and Corporate Governance Committee also takes into account the results of our Board's self-evaluation, conducted annually on a group and individual basis. In the case of new director candidates, our Nominating and Corporate Governance Committee also determines whether the nominee is independent for NASDAQ purposes, which determination is based upon applicable NASDAQ listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. Our Nominating and Corporate Governance Committee then uses its network of contacts to compile a list of potential candidates, but may also engage, if it deems appropriate, a professional search firm. Our Nominating and Corporate Governance Committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of our Board. Our Nominating and Corporate Governance Committee meets to discuss and consider the candidates' qualifications and then selects a nominee for recommendation to our Board by majority vote. During 2015 and 2018, our Nominating and Corporate Governance Committee retained and paid a search firm to assist in the identification and evaluation of candidates for director.

In identifying potential candidates for Board membership, our Nominating and Corporate Governance Committee relies on suggestions and recommendations from our Board, stockholders, management and others. Our Nominating and Corporate Governance Committee will consider director candidates recommended by stockholders. Our Nominating and Corporate Governance Committee does not intend to alter the manner in which it evaluates candidates, including the minimum criteria set forth above based on whether or not the candidate was recommended by a stockholder.

Code of Business Conduct and Ethics

The Company has adopted the NewLink Genetics Corporation Code of Business Conduct and Ethics that applies to all officers, directors and employees. The Code of Business Conduct and Ethics is available on our website at www.newlinkgenetics.com in the "Investors & Media - Corporate Governance" section. The Company amended the code of ethics in October 2015 and any future amendments or waivers to our code of ethics will be promptly disclosed on its website and as required by applicable laws, rules and regulations of the SEC and NASDAQ.

Corporate Governance Guidelines

Our Board adopted Corporate Governance Guidelines to assure that our Board will have the necessary authority and practices in place to review and evaluate our business operations as needed and to make decisions that are independent of our management. The guidelines are also intended to align the interests of directors and management with those of our stockholders. The Corporate Governance Guidelines set forth the practices our Board intends to follow with respect to board composition and selection, board meetings and involvement of senior management, Chief Executive Officer performance evaluation and succession planning and board committees and compensation. The Corporate Governance Guidelines, as well as the charters for each committee of our Board, may be viewed at www.newlinkgenetics.com in the "Investors & Media - Corporate Governance" section.

PROPOSAL 2

ADVISORY VOTE ON COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

At the 2018 Annual Meeting of Stockholders, our stockholders indicated their preference that the Company solicit a non-binding advisory vote on the compensation of the named executive officers, commonly referred to as a "say-on-pay vote," every year. Our Board has adopted a policy that is consistent with that preference.

This vote is being provided pursuant to section 14A of the Securities Exchange Act. It is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers and the philosophy, policies and practices described in this proxy statement. The compensation of our named executive officers subject to the vote is disclosed in the compensation tables and the related narrative disclosure contained in this proxy statement. As discussed in those disclosures, the Company believes that its compensation policies and decisions are consistent with our strategic compensation and retention needs. Further, our compensation policies and decisions are designed to align its executive officers' compensation with our business objectives and the interests of its stockholders, to incentivize and reward its executive officers for our success and to promote teamwork within our executive management team. Compensation of our named executive officers is designed to enable the Company to attract and retain talented and experienced executives to lead the Company successfully in a competitive environment.

Accordingly, our Board is asking the 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 our named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the compensation tables and narrative discussion, is hereby APPROVED."

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

Advisory approval of this proposal requires the vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote on the matter at the Annual Meeting. Abstentions will be counted toward the tabulation of votes on proposals presented to the stockholders and will have the same effect as negative votes. Broker non-votes are counted toward a quorum, but are not counted for any purpose in determining whether this matter has been approved.

Unless our Board decides to modify its policy regarding the frequency of soliciting advisory votes on the compensation of our named executive officers, the next scheduled say-on-pay vote will be at the 2020 Annual Meeting of Stockholders.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 2.

PROPOSAL 3

APPROVAL OF AN AMENDMENT TO OUR 2009 EQUITY INCENTIVE PLAN

Overview

On March 22, 2019, our Board of Directors amended the NewLink Genetics Corporation 2009 Equity Incentive Plan, as amended (the "2009 Plan"), subject to stockholder approval, to among other things, extend the term of the 2009 Plan. We refer to the 2009 Plan, as amended on March 22, 2019, as the "Amended 2009 Plan" throughout this proxy statement. References in this proposal to our Board of Directors include the Compensation Committee of the Board, where applicable.

A description of the material terms of the Amended 2009 Plan are summarized below. The key differences between the terms of the 2009 Plan and the Amended 2009 Plan are as follows:

- The Amended 2009 Plan eliminates references to Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"), and references to performance cash awards as the Code was amended in 2018 to eliminate the exemption for "performance-based compensation" under Code Section 162(m).
- The Amended 2009 Plan eliminates references to performance cash awards, because those awards were included in the 2009 Plan in order to allow the Company to comply with the exemption for "performance-based compensation" under Section 162(m), which has been repealed, effective for taxable years beginning after December 31, 2017.
- The Amended 2009 Plan provides generally that dividends and dividend equivalents with respect to shares subject to a stock award will be subject to the same restrictions, including vesting restrictions, as the underlying stock award.
- The Amended 2009 Plan provides that shares returned to the Company upon the "net exercise" of options or shares that are withheld by the Company for tax withholding purposes do not return to the share reserve
- The Amended 2009 Plan decreases the automatic annual "evergreen" share increase from 4% of the outstanding shares to 3% and extends the term of such "evergreen" through January 1, 2029.
- The Amended 2009 Plan prohibits repricing of stock awards without stockholder approval.
- The Amended 2009 Plan clarifies that, in the event of a corporate transaction in which the surviving corporation or acquiring corporation (or its parent company) does not assume, continue, or substitute for performance stock awards granted by the Company, the vesting of such performance stock awards will be deemed to be satisfied at the target level.
- The Amended 2009 Plan contains provisions that call for automatic, non-discretionary grants to the non-employee members of our Board.
- The Amended 2009 Plan adds clawback language.
- The Amended 2009 Plan extends the termination date originally set in the 2009 Plan indefinitely and provides that incentive stock options may not be granted more than 10 years after March 22, 2019 (the date of the Board's approval of the Amended 2009 Plan).

In this Proposal 3, our Board of Directors is requesting stockholder approval of the Amended 2009 Plan. The Board of Directors believes that the Amended 2009 Plan is an integral part of our long-term compensation philosophy and the Amended 2009 Plan is necessary to continue providing the appropriate levels and types of equity compensation for our employees.

Equity Awards Are an Integral Component of Our Compensation Program

Equity awards have been historically and, we believe, will continue to be an integral component of our overall compensation program for our employees and directors. Approval of the Amended 2009 Plan will allow us to continue to grant stock options and other equity awards at levels we determine to be appropriate in order to attract new employees and directors, retain our existing employees and to provide incentives for such persons to exert maximum efforts for the Company's success and ultimately increase stockholder value. The Amended 2009 Plan allows the Company to utilize a broad array of equity incentives with flexibility in designing such incentives, including traditional option grants, stock appreciation rights, restricted stock awards, restricted stock unit awards and performance stock awards.

As of March 22, 2019, stock awards covering an aggregate of 9,357,879 shares were outstanding under our 2009 Plan and the 2010 Non-Employees Director Plan, collectively. In addition, 1,923,269 shares remained available for future grant under the 2009 Plan as of such date.

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

	<u>As of March 22, 2019</u>
Total number of shares of common stock subject to outstanding stock options	9,333,623
Weighted-average exercise price of outstanding stock options	\$10.26
Weighted-average remaining term of outstanding stock options	5.17 years
Total number of shares of common stock subject to outstanding full value awards	24,256
Total number of shares of common stock available for grant under the 2009 Plan	1,923,269
Total number of shares of common stock available for grant under other equity incentive plans	53,509
Total number of shares of common stock outstanding	37,276,102
Per-share closing price of common stock as reported on Nasdaq Global Select Market	\$1.91

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

We continue to believe that equity awards such as stock options and other types of stock 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 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.

The following table shows our historical dilution and burn rate percentages for fiscal years 2016, 2017 and 2018.

<u>As of December 31</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Full Dilution(1)	21.0	18.8	20.7

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

Burn Rate

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

<u>Fiscal Year</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Total number of shares of common stock subject to stock options granted	1,657,523	1,526,787	1,346,758
Total number of shares of common stock subject to full value awards granted	—	—	193,834
Weighted-average number of shares of common stock outstanding	37,195,624	31,375,045	28,971,884
Burn Rate	4.5 %	4.9 %	5.3 %

The approval of the Amended 2009 Plan will allow us to continue to grant stock options, and would allow us to grant other awards described below, at levels determined appropriate by our Board of Directors or its delegate. The Amended 2009 Plan will continue to provide us with flexibility in designing equity incentives in an environment where a number of companies have moved from traditional option grants to other stock-based awards, including stock appreciation rights, restricted stock awards, restricted stock unit awards, and performance stock awards. The Amended 2009 Plan allows us to utilize multiple types of equity incentives

in order to secure and retain the services of our employees, consultants and directors, and to provide long-term incentives that align the interests of our employees, consultants and directors with the interests of our stockholders.

Important Aspects of Our Amended 2009 Plan Designed to Protect Our Stockholders' Interests

The Amended 2009 Plan includes certain provisions that are designed to protect our stockholders' interests and to reflect corporate governance best practices including:

- *Repricing is not allowed.* The Amended 2009 Plan prohibits the repricing of outstanding equity awards and the cancelation of any outstanding equity awards that have an exercise price or strike price greater than the current fair market value of our common stock in exchange for cash or other stock awards under the Amended 2009 Plan.
- *Submission of amendments to Amended 2009 Plan to stockholders.* The Amended 2009 Plan requires stockholder approval for material amendments to the Amended 2009 Plan.
- *Flexibility in designing equity compensation scheme.* The Amended 2009 Plan allows us to provide a broad array of equity incentives, including traditional option grants, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, and other stock awards. By providing this flexibility we can quickly and effectively react to trends in compensation practices and continue to offer competitive compensation arrangements to attract and retain the talent necessary for the success of our business.
- *Automatic non-employee director awards.* The Amended 2009 Plan contains provisions that call for automatic, non-discretionary grants to the non-employee members of our Board.
- *Broad-based eligibility for equity awards.* We grant equity awards to the vast majority of our employees. By doing so, we tie our employees' interests with stockholder interests and motivate our employees to act as owners of the business.
- *Restrictions on dividends.* The Amended 2009 Plan 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.

General 2009 Plan Information

Our 2009 Plan was adopted by the Board of Directors on May 13, 2009 and approved by our stockholders on July 15, 2009. The 2009 Plan was the successor to and continuation of the 2000 Plan. All outstanding stock awards granted under the 2000 Plan continue to be subject to the terms and conditions as set forth in the agreements evidencing such stock awards and the terms of the 2000 Plan; provided, however, that any shares subject to outstanding stock options granted under the 2000 Plan that expire or terminate for any reason prior to exercise become available for issuance pursuant to stock awards granted under the Amended 2009 Plan. Following May 13, 2009, the effective date of the 2009 Plan, no additional stock awards have been granted under the 2000 Plan. As of May 13, 2009, 1,535,000 shares remaining available for issuance as new stock awards under the 2000 Plan became available for issuance pursuant to stock awards granted under the 2009 Plan. In October 2010, our Board of Directors adopted, and in January 2011, our stockholders approved, an amendment to the 2009 Plan to increase the number of shares reserved for issuance under the 2009 Plan to 3,992,857 shares.

In this Proposal No. 3, stockholders are requested to approve the Amended 2009 Plan. Approval of the adoption of the Amended 2009 Plan requires "For" votes from a majority of the votes cast at the Annual Meeting by the holders of shares present in person or represented by proxy and entitled to vote on this Proposal No. 3, excluding votes of shares owned, beneficially or of record, by our non-employee directors, in the interest of obtaining a disinterested vote of our stockholders. Abstentions will be counted toward the tabulation of votes cast on Proposal No. 3 and will have the same effect as negative votes. Broker non-votes are counted toward a quorum, but are not counted for any purpose in determining whether this matter has been approved.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 3.

Description of the Amended 2009 Plan

The material features of the Amended 2009 Plan are outlined below. This summary is qualified in its entirety by reference to the complete text of the Amended 2009 Plan. Stockholders are urged to read the actual text of the Amended 2009 Plan in its entirety, which is appended to this proxy statement as **Appendix A** and may be accessed from the SEC's website at www.sec.gov.

Background

The terms of the Amended 2009 Plan provide for the grant of both nonstatutory stock options ("NSOs") and incentive stock options ("ISOs"), restricted stock, restricted stock units, stock appreciation rights, other stock-related awards, and performance stock awards.

Shares Available for Awards

If this Proposal 3 is approved, the total number of shares of our common stock reserved for issuance under the Amended 2009 Plan will consist of:

- 1,309,523 shares approved by the stockholders on July 15, 2009;
- 1,238,095 shares approved by the stockholders on May 15, 2010;
- 714,285 shares approved by the stockholders on January 7, 2011;
- an aggregate of 9,138,750 shares automatically added to the share reserve on January 1 of each year during the period beginning January 1, 2012 through January 1, 2019;
- the number of shares to be added as a result of our annual automatic "evergreen" increase; and
- any returning shares, if any, as such shares become available.

As of March 22, 2019, there were 1,923,269 shares of common stock (plus any shares that might in the future be returned to the plan as a result of cancellation or expiration of options) available for future grant under the 2009 Plan. In addition, as of such date, options covering an aggregate of 9,333,623 shares, collectively, were outstanding under the 2009 Plan, and 24,256 restricted stock awards were outstanding. The weighted average exercise price of all options outstanding as of March 20, 2019 was approximately \$10.26 and the weighted average remaining term of such options was approximately 5.17 years. A total of 37,276,102 shares of our common stock were outstanding as of March 22, 2019.

If we issue common stock pursuant to a stock award and the common stock is later forfeited, then the forfeited shares will become available for issuance under the Amended 2009 Plan. Any shares underlying a stock option or stock appreciation right that we reacquire pursuant to our withholding obligations and any shares that we reacquire as consideration for the exercise of an option or stock appreciation right, however, do not become available for issuance under the Amended 2009 Plan. In addition, if the exercise price of any award is satisfied by the tender of shares of common stock to us (whether by actual delivery or attestation), the tendered shares do not become available for issuance under the Amended 2009 Plan.

Eligibility

All of our approximately 50 employees and all of our 5 non-employee directors are eligible to participate in the Amended 2009 Plan and may receive all types of awards; provided that incentive stock options may be granted under the Amended 2009 Plan only to our employees. Although our Amended 2009 Plan provides that consultants are eligible to participate in the plan, historically we have rarely granted equity awards to our consultants.

Administration

The Amended 2009 Plan is administered by our Board of Directors, which may in turn delegate authority to administer the plan to a committee. Our Board of Directors has delegated administration of the Amended 2009 Plan to our Compensation Committee Subject to the terms of the Amended 2009 Plan, our Compensation Committee may determine the recipients, numbers and types of stock awards to be granted, and terms and conditions of the stock awards, including the period of their exercisability and vesting. The fair market value applicable to a stock award and the exercise price of options granted under the Amended 2009 Plan is determined in accordance with the terms of the Amended 2009 Plan.

At the discretion of our Board of Directors, the Compensation Committee may consist solely of two or more "non-employee directors" within the meaning of Rule 16b-3 of the Exchange Act. Our Compensation Committee has the authority to delegate certain administrative powers to a subcommittee of one or more members. As used herein, except as explicitly stated otherwise, with respect to the Amended 2009 Plan, the "Board" refers to any committee the Board of Directors appoints (including the Compensation Committee) or, if applicable, any subcommittee, as well as to the Board of Directors itself.

Repricing

Under the Amended 2009 Plan, the Board does not have the authority to reprice any outstanding equity awards by reducing the exercise price of the stock award or cancelling any outstanding stock awards in exchange for cash or other stock awards under the plan without the approval of our stockholders (which approval must be obtained within 12 months prior to the repricing event).

Dividends and Dividend Equivalents

The Amended 2009 Plan 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 Board 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.

Options

Options may be granted under the Amended 2009 Plan pursuant to stock option agreements. The Amended 2009 Plan permits the grant of options that qualify as incentive stock options, or ISOs, and nonstatutory stock options, or NSOs. Individual stock option agreements may be more restrictive as to any or all of the permissible terms described in this section.

The exercise price of NSOs may not be less than 100% of the fair market value of the common stock subject to the option on the date of grant. The exercise price of ISOs may not be less than 100% of the fair market value of the common stock subject to the option on the date of grant and, in some cases (see "Limitations" below), may not be less than 110% of such fair market value.

The term of stock options granted under the Amended 2009 Plan may not exceed ten years. Unless the terms of an optionholder's stock option agreement provide for earlier or later termination, if an optionholder's service relationship with us, or any affiliate of ours, ceases due to (i) disability, the optionholder may exercise any vested options for up to 12 months after the date the service relationship ends or (ii) death, the optionholder's beneficiary, may exercise any vested options for up to 18 months after the date the service relationship ends. Except as explicitly provided otherwise in an optionholder's award agreement, if an optionholder's service relationship with us is terminated for "cause" as defined in the Amended 2009 Plan, all options terminate upon the service termination date, and the optionholder is prohibited from exercising any option from the time of such termination. If an optionholder's service relationship with us ceases for any reason other than for cause or upon disability or death, the optionholder may exercise any vested options for up to three months after the date the service relationship ends, unless the terms of the stock option agreement provide for a longer or shorter period to exercise the option. In no event may an option be exercised after its expiration date. Under the Amended 2009 Plan, the option term may be extended in the event that exercise of the option following termination of service is prohibited by applicable securities laws or if the sale of stock received upon exercise of an option would violate our insider trading policy. In no event, however, may any option be exercised beyond the expiration of its term.

Acceptable forms of consideration for the purchase of our common stock issued under the Amended 2009 Plan will be determined by our Board and may include cash, check, bank draft or money order made payable to us, the recipient's past services performed for us or an affiliate of ours, or other legal consideration approved by our Board.

Options granted under the Amended 2009 Plan may become exercisable in cumulative increments, or "vest", as determined by our Board at the rate specified in the option agreement. Shares covered by different options granted under the Amended 2009 Plan may be subject to different vesting schedules as our Board may determine. Vesting can be time-based or performance-based or can be a hybrid of performance- and time-based vesting. Our Board also has flexibility to provide for accelerated vesting of equity awards in certain events. Our Board and Compensation Committee intend to continue to grant stock options to our officers with accelerated vesting, subject to additional conditions, in the event of a change of control of the Company as defined in the Amended 2009 Plan.

Generally, an optionholder may not transfer a stock option other than by will or the laws of descent and distribution or a domestic relations order. However, an optionholder may designate a beneficiary who may exercise the option following the optionholder's death.

Limitations

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 options or portions of options that exceed this limit are treated as NSOs. No ISO may be granted to any person who, at the time of the 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 option exercise price must be at least 110% of the fair market value of the stock subject to the option on the date of grant; and
- the term of any 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 2009 Plan is fifty million (50,000,000) shares.

Restricted Stock Awards

Restricted stock awards may be granted 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 recipient's past services performed for us or an affiliate of ours, or any other form of legal consideration acceptable to the Board. Shares of our common stock acquired under a restricted stock award may be subject to forfeiture to us in accordance with a vesting schedule to be determined by our Board. 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.

Restricted Stock Unit Awards

Restricted stock unit awards may be granted pursuant to restricted stock unit award agreements. Payment of any purchase price may be made in any legal form acceptable to the Board. We will settle a payment due to a recipient of a restricted stock unit award by delivery of shares of our common stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by our Board and set forth in the restricted stock unit award agreement. Dividend equivalents may be credited in respect of shares of our common stock covered by a restricted stock unit award. Restricted stock unit awards may be subject to vesting in accordance with a vesting schedule to be determined by our Board. Except as otherwise provided in the applicable restricted stock unit award agreement, restricted stock units that have not vested will be forfeited upon the participant's termination of continuous service for any reason.

Stock Appreciation Rights

Stock appreciation rights may be granted pursuant to a stock appreciation right agreement. Each stock appreciation right is denominated in common stock share equivalents. The strike price of each stock appreciation right will be determined by our Board, but shall in no event be less than 100% of the fair market value of the stock subject to the stock appreciation right at the time of grant. Our Board may also impose restrictions or conditions upon the vesting of stock appreciation rights that it deems appropriate. Stock appreciation rights may be paid in our common stock, in cash, in any combination of the two, or any other form of legal consideration approved by our Board and contained in the stock appreciation right agreement. Stock appreciation rights shall be subject to the same conditions upon termination and restrictions on transfer as stock options under the Amended 2009 Plan.

Performance Stock Awards

The Amended 2009 Plan provides for the grant of performance stock awards. Performance stock awards may be granted, may vest or may be exercised based upon the attainment during a certain period of time of certain performance goals. 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 shall be determined by the Board.

Performance goals under the Amended 2009 Plan shall be determined by a committee of the Board composed solely of outside directors members, 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; (iv) total stockholder return; (v) return on equity or average stockholder's equity; (vi) return on assets, investment, or capital employed; (vii) stock price; (viii) margin (including gross margin); (ix) 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) commencement of, progress in, or completion of clinical trials or other development projects; (xxv) receipt of government contracts, grants or awards; (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) completion of financing transactions; (xxxiii) completion of, progress under, or receipt of upfront, milestone, royalty or other payments under, licensing or strategic transactions; and (xxxiv) other measures of performance selected by the Board.

Other Stock Awards

Other forms of stock awards valued in whole or in part with reference to our common stock may be granted either alone or in addition to other stock awards under the Amended 2009 Plan. Our Board 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 conditions of such other stock awards. Other forms of stock awards may be subject to vesting in accordance with a vesting schedule to be determined by our Board.

Changes to Capital Structure

In the event that there is a specified type of change in our capital structure not involving the receipt of consideration by us, such as a stock split or stock dividend, the class and number of shares reserved under the Amended 2009 Plan (including share limits) and the class and number of shares and exercise price or strike price, if applicable, of all outstanding stock awards will be appropriately adjusted.

Corporate Transactions

Unless otherwise provided in a written agreement between the Company or any of its affiliates and the holder of the stock award, or expressly provided by the Board or the Compensation Committee at the time of grant of a stock award, in the event of a corporate transaction (as specified in the Amended 2009 Plan and described below), all outstanding stock awards under the Amended 2009 Plan shall be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute for such stock awards, then (i) with respect to any such stock awards that are held by individuals whose continuous service with us or an affiliate has not terminated prior to the effective date of the corporate transaction, the vesting and exercisability provisions of any such time-based stock awards will be accelerated in full (and any such performance-based stock awards will be accelerated to the target level) and such awards will terminate if not exercised prior to the effective date of the corporate transaction, and (ii) with respect to any stock awards that are held by individuals whose continuous service with the Company or an affiliate of the Company has terminated prior to the effective date of the corporate transaction, the vesting and exercisability provisions of such stock awards will not be accelerated and such awards will terminate if not exercised prior to the effective date of the corporate transaction (except that any reacquisition or repurchase rights held by the Company with respect to such stock awards shall not terminate and may continue to be exercised notwithstanding the corporate transaction).

For purposes of the Amended 2009 Plan, a corporate transaction will be deemed to occur in the event of the consummation of (i) a sale of all or substantially all of our consolidated assets, (ii) a sale of at least 90% of our outstanding securities, (iii) a merger or consolidation in which we are not the surviving corporation, or (iv) a merger or consolidation in which we are the surviving corporation but shares of our outstanding common stock are converted into other property by virtue of the transaction.

A stock award may be subject to additional acceleration of vesting and exercisability upon or after a change in control, as provided in the stock award agreement or in any other written agreement between us and the participant, but in the absence of such provision, no acceleration shall occur.

Plan Amendments

Our Board will continue to have the authority to amend or terminate the Amended 2009 Plan. However, no amendment, including the one put forth in this Proposal 3, or termination of the plan will adversely affect any rights under awards already granted to a participant unless agreed to by the affected participant. We will obtain stockholder approval of any amendment to the Amended 2009 Plan as required by applicable law.

U.S. Federal Income Tax Consequences

The information set forth below is a summary only and does not purport to be complete. 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 recipient may depend on his or her particular situation, each recipient should consult the recipient'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 as a result of an award. The Amended 2009 Plan is not qualified under the provisions of Section 401(a) of 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 where the option is granted with an exercise price equal to the fair market value of the underlying stock on the grant date. On exercise, an optionholder will recognize ordinary income equal to the excess, if any, of the fair market value on the date of exercise of the stock over the exercise price. If the optionholder is employed by us, that income will be subject to withholding tax. The optionholder's tax basis in those shares will be equal to their fair market value on the date of exercise of the option, and the optionholder's capital gain holding period for those shares will begin on that date.

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

Incentive Stock Options

The Amended 2009 Plan provides for the grant of stock options that qualify as "incentive stock options", as defined in Section 422 of the Code. Under the Code, an optionholder generally is not subject to ordinary income tax upon the grant or exercise of an ISO, subject to alternative minimum tax obligations upon exercise of an ISO. If the optionholder holds a share received on 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 holder's tax basis in that share will be long-term capital gain or loss.

If, however, an optionholder disposes of a share acquired on exercise of an ISO before the end of the required holding period, which is referred to as a disqualifying disposition, the optionholder 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 the ISO was exercised 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 optionholder 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 on exercise of an ISO exceeds the exercise price of that stock option generally will be an adjustment included in the optionholder'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 on 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 an income tax deduction with respect to the grant or exercise of an ISO or the disposition of a share acquired on exercise of an ISO after the required holding period. If there is a disqualifying disposition of a share, however, we are allowed a deduction in an amount equal to the ordinary income includible in income by the optionholder, subject to Section 162(m) of the Code and provided that amount constitutes an ordinary and necessary business expense for us and is reasonable in amount, and 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 compensation 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 compensation 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 of his or her receipt of the stock award, to recognize ordinary compensation 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 in exchange for the stock.

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

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

Stock Appreciation Rights

We may grant under the Amended 2009 Plan stock appreciation rights separate from any other award or in tandem with other awards under the Amended 2009 Plan.

Where the rights are granted with a strike price equal to the fair market value of the underlying stock on the grant date and where the recipient may only receive the appreciation inherent in the stock appreciation rights in shares of our common stock, the recipient will recognize ordinary compensation income equal to the fair market value of the stock received upon such exercise. If the recipient may receive the appreciation inherent in the stock appreciation rights in cash or other property and the stock appreciation right has been structured to conform to the requirements of Section 409A of the Code, then the cash will be taxable as ordinary compensation income to the recipient at the time that the cash is received.

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

Restricted Stock Units

Generally, the recipient of a stock unit structured to conform to the requirements of Section 409A of the Code or an exception to Section 409A of the Code will recognize ordinary compensation income at the time the stock is delivered equal to the excess, if any, of the fair market value of the shares of our common stock received over any amount paid by the recipient in exchange for the shares of our common stock. To conform to the requirements of Section 409A of the Code, the shares of our common stock subject to a 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 stock units otherwise comply with or qualify for an exception 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 tax basis for the determination of gain or loss upon the subsequent disposition of shares acquired from stock units will be the amount paid for such shares plus any ordinary income recognized when the stock is delivered.

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

Section 162 Limitations

Compensation of persons who are "covered employees" of the Company is subject to the tax deduction limits of Section 162(m) of the Code. The exemption from Section 162(m)'s deduction limit for performance-based compensation has been repealed, effective for taxable years beginning after December 31, 2017, such that compensation paid to our covered employees in excess

of \$1 million will not be deductible unless it qualifies for transition relief applicable to certain arrangements in place as of November 2, 2017.

Interest of Certain Persons in the Amended 2009 Plan

Stockholders should understand that our directors, executive officers and other employees may be considered as having an interest in the approval of the Amended 2009 Plan because they may, in the future, receive awards under it. If approved, the annual grants made to our non-employee directors in connection with our Annual Meeting, beginning with the 2019 Annual Meeting of Stockholders, would be issued under the Amended 2009 Plan. The Board believes that it is important to our growth and long-term success to be able to continue to offer these incentives.

New Plan Benefits

Amended 2009 Plan

Name and position(1)	<u>Dollar value of awards</u>	<u>Number of shares of common stock subject to awards</u>
Charles J. Link, Jr., M.D., Chief Executive Officer (2)		250,000
Nicholas N. Vahanian, M.D., President (2)		100,000
All Current Executive Officers as a group		350,000
All Current Non-Employee Directors as a group (3)	(4)	(4)
All Current Employees as a group (excluding all current executive officers)		—

- (1) Except as listed in the table, no other awards that may be made under the Amended 2009 Plan are currently determinable, as there are no guaranteed or contractually required awards. Future grants are subject to approval of our Board or the applicable committee.
- (2) See "Proposal 5 - Option Grants to Our CEO and President."
- (3) Includes Matthew L. Sherman as a nominee for re-election at the Annual Meeting.
- (4) As described in the paragraph preceding the table, NSO grants equivalent to a specified dollar value will be made pursuant to our non-employee director compensation plan at the Annual Meeting as described under "Director Compensation" below.

Plan Benefits Table

The following table sets forth, for each of the individuals and groups indicated, the total number of shares of our common stock subject to awards that have been granted (even if not currently outstanding) under the 2009 Plan through December 31, 2018.

2009 Plan

<u>Name and position</u>	<u>Number of shares</u>
Charles J. Link, Jr., M.D. <i>Chief Executive Officer</i>	2,575,357
Nicholas N. Vahanian, M.D. <i>President</i>	1,905,572
Eugene P. Kennedy, M.D. <i>Chief Medical Officer</i>	411,141
Carl W. Langren <i>Chief Financial Officer</i>	354,731
All current executive officers as a group	5,246,801
All current directors who are not executive officers as a group	891,483
Each nominee for election as a director:	
Nicholas N. Vahanian, M.D.	<i>See above</i>
Matthew L. Sherman, M.D.	(1)
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	6,165,903

(1) 91,224 total stock options granted included in "All current directors who are not executive officers as a group"

Equity Compensation Plan Information

Our Equity Compensation Information Plan table is incorporated by reference from our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 5, 2019.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 3.

PROPOSAL 4

APPROVAL OF THE STOCK OPTION EXCHANGE PROGRAM

On March 22, 2019, our Board authorized a stock option exchange program, or Option Exchange, pursuant to which our employees, including our executive officers, and our non-employee directors would be given the opportunity to exchange eligible stock options for new stock options with an exercise price equal to the fair market value of our common stock at the time of the exchange. As disclosed in the Interests of Our Executive Officers and Non-Employee Directors in the Option Exchange table and related narrative disclosure contained in this proxy statement, the Company's executive officers and non-employee directors have an interest in this Proposal 4.

An eligible stock option generally includes any employee stock option that has an exercise price equal to or greater than \$2.97 per share and was granted on or prior to December 31, 2018 pursuant to either our 2000 Equity Incentive Plan, 2009 Equity Incentive Plan, or 2010 Non-Employee Directors' Stock Award Plan, which we collectively refer to as our Equity Plans.

Implementation of the Option Exchange is contingent upon (i) stockholder approval of the Option Exchange in this Proposal No. 4 and (ii) stockholder approval of the amendment of the Amended 2009 Plan, as described in Proposal No. 3.

As of December 31, 2018, we had outstanding stock options held by employees and directors to purchase 7,979,644 shares of common stock with a weighted average exercise price of \$11.86 per share, which includes 937,406 shares held by our CEO and our President that will expire prior to the Option Exchange and 1,053,129 shares held by non-employees that will not be eligible for the Option Exchange. The remaining 5,880,097 shares with an exercise price equal to or greater than \$2.97 per share have a weighted average exercise price of \$12.61 and would be considered eligible stock options for purposes of the Option Exchange.

The Board believes that the Option Exchange is in the best interests of stockholders and the Company, as new stock options granted under the program will provide added incentive to motivate and retain our talented employees and directors. As an alternative to increased cash compensation, the Option Exchange will allow us to devote more of our cash resources towards advancing our clinical development programs. In addition, it will provide the opportunity to reduce the "overhang" of outstanding stock options, many of which are well out of the money.

Rationale for Option Exchange

Our Compensation Committee evaluated several alternatives for remaining competitive within our industry and with our employees and directors, including increasing cash compensation and/or granting additional equity awards. While these components are part of our overall compensation packages, we do not believe that relying exclusively on such approaches is an ideal use of our resources. For example, increasing cash compensation would reduce the cash resources we devote to research and development, and granting additional stock awards would cause dilution to our current stockholders. Accordingly, we determined that the Option Exchange was the most attractive alternative for stockholders for the reasons set forth below.

Performance Incentives

We face significant competition for experienced personnel in our industry, and stock options are an important part of our incentive compensation. The price of our common stock has significantly decreased over the last several years. While we have worked to refocus the Company and remain optimistic regarding our technologies and growth potential, the price of our common stock remains relatively low. On March 22, 2019, the closing price of our common stock on The Nasdaq Global Market was \$1.91 per share, resulting in greater than 99% of our outstanding eligible employee and director stock options being underwater (meaning the stock option exercise price exceeded the market price of our common stock on such date). Our compensatory stock options cannot be sold; they may either be voluntarily exercised when there is a positive spread between the exercise price and the market price of our common stock, or they will expire unexercised. Underwater stock options are no longer effective as performance incentives because they provide little perceived value to employee optionholders. In addition, because many of our options are significantly underwater, the likelihood that there will be a positive spread between their exercise prices and the near-term price of our common stock is too low to provide meaningful incentive to employee optionholders.

Employee Retention

We have designed the Option Exchange to restore equity value, increase retention and motivation in a competitive labor market, provide non-cash compensation incentives and align our employee and stockholder interests for long-term growth.

Underwater stock option awards are of limited benefit in motivating and retaining our employees, including our executive officers, and our non-employee directors. Through the Option Exchange, we believe that we will be able to enhance long-term stockholder value by increasing our ability to retain experienced and talented employees and by aligning the interests of these individuals more fully with the interests of our stockholders. As of March 22, 2019, greater than 99% of our eligible employee stock options are underwater (and for a large number of employees, significantly so), so we may face a considerable challenge in retaining our employees and directors, and there is a possibility that our competitors may be able to offer equity incentives that are more attractive, which in some cases, could make the terms of employment at a new employer more attractive than we can offer to our existing employees and directors. The Option Exchange is designed to address these concerns as well as improve morale among our employees and directors generally and reinvent a culture where equity compensation is a key component of our overall compensation package.

As discussed in more detail below, none of the new stock options issued under the Option Exchange program will be vested on the date of grant. Stock options issued in the Option Exchange for options that are already vested as of the exchange date will vest as to 50% on the first anniversary of grant date and 50% on the second anniversary of grants date, while stock options that are unvested at the exchange date will vest as to 50% at the second anniversary and 50% at the third anniversary. The stock options eligible to be exchanged are generally subject to a four-year vesting schedule, in which twenty-five percent of shares vest after one year, and the remaining shares vest in equal monthly installments. Our Compensation Committee believes that implementing a new extended vesting schedule is appropriate because it encourages retention of employees and directors over the next one to three years, during an important period for the Company.

Reduce Stock Overhang

Under the Option Exchange, eligible participants will receive new stock options covering a smaller number of shares than are covered by the surrendered stock options. Therefore, implementation of the Option Exchange would significantly reduce the number of outstanding stock options if employees and directors participate in the program. The number of shares covered by the new stock options are based on exchange ratios developed by using a Black-Scholes calculation that values the old grant relative to the projected value of the new grant, such that the new stock options will have a fair value, on an aggregate basis, approximately equal to the fair value of the eligible stock options they replace. Our Compensation Committee established the exchange ratios, which vary based on the original exercise price of the eligible stock option, as described further in the section "Exchange Ratios" below.

As of December 31, 2018, we had outstanding stock options held by employees and directors to purchase 7,979,644 shares of common stock with a weighted average exercise price of \$11.86 per share, which includes 937,406 shares held by our CEO and our President that will expire prior to the Option Exchange and 1,053,129 shares held by non-employees that will not be eligible for the Option Exchange. The remaining 5,880,097 shares with an exercise price ranging from \$2.97 per share to \$52.85 per share and have a weighted average exercise price of \$12.61 and would be considered eligible stock options for purposes of the Option Exchange. As a result, we have developed a significant stock option "overhang" consisting of outstanding but unexercised options that are not serving their intended purposes of motivating and retaining employees, including our executive officers, and directors. Not only do the underwater stock options have diminished employee and director retention value, they cannot be removed from our equity award overhang until they are exercised, expire or otherwise cancelled (for example, when an employee leaves our employment). Significant overhang may portend additional dilution to existing and potential stockholders and may therefore have the effect of inhibiting additional investment in our common stock, which can have a negative impact on stock price and trading volume. By replacing stock options through the Option Exchange, we estimate that we can reduce our overhang of outstanding stock options by as much as 11.6% of our outstanding common stock.

Alternatives Considered

Our Compensation Committee considered alternatives to the Option Exchange to provide meaningful performance and retention incentive to our employees and directors, including providing new options to employees and directors, exchanging underwater options for full value shares, or exchanging underwater options for a cash payment. The Compensation Committee determined that the Option Exchange provides better performance and retention incentives with less cost to the Company or dilution to stockholders than the other alternatives.

Structure of the Option Exchange

The Board authorized the Option Exchange on March 22, 2019, subject to stockholder approval, and subject to stockholder approval of our Amended 2009 Plan, as described in Proposal No. 3. It is currently anticipated that the Option Exchange will commence as soon as practicable following approval of this Proposal No. 4 by our stockholders, or the Commencement Date. At the start of the Option Exchange, employees and directors holding eligible stock options will receive a written exchange offer that will set forth the precise terms of the Option Exchange. The written offer will be governed by the tender offer rules of the SEC. At or before the Commencement Date, we will file the offer to exchange and other related documents with the SEC as part of a tender offer statement on Schedule TO. Eligible optionholders will be given at least 20 business days to elect to participate in the Option Exchange. Eligible optionholders may choose which eligible option grants they wish to exchange, though they may not choose to exchange portions of eligible option grants. Set forth below is a description of the key features of the Option Exchange.

Eligible Participants

The Option Exchange will be available to all employees and non-employee directors of the Company, who, on the Commencement Date, hold outstanding eligible stock options and are employed by, or providing service to, the Company. As of March 22, 2019, eligible stock options were held by approximately 100% of our employees and directors. Participants in the Option Exchange must continue to be employed by or provide services to the Company on the date the surrendered options are cancelled and replacement stock options are granted (such date, the "Exchange Date"). Any employee or director holding eligible stock options who elects to participate in the Option Exchange but whose service with the Company terminates for any reason before the Exchange Date, including a termination due to voluntary resignation, retirement, involuntary termination, layoff, death or disability, would retain his or her eligible options subject to their existing terms and will not be eligible to receive new stock options in the Option Exchange.

Eligible Stock Options

As of December 31, 2018, we had outstanding eligible stock options to purchase 5,880,097 shares of common stock under our Equity Plans at a weighted-average exercise price of \$12.61 per share. The eligible stock options represent approximately 15.8% of the issued and outstanding shares of our common stock as of December 31, 2018. If all of the eligible stock options are exchanged and replaced by new stock options in accordance with the exchange ratios described below under the section heading "Exchange Ratios," the number of outstanding stock options under our Equity Plans would be reduced by 3,291,725 shares, representing approximately 6.0% of our common stock issued and outstanding as of December 31, 2018.

Exchange Ratios; Exercise Price of New Options

The exchange ratios for the Option Exchange have been designed to result in a fair value of the new stock options that will be approximately equal, on an aggregate basis, to the fair value of the eligible stock options that would be surrendered (based on valuation assumptions made when the Option Exchange was approved). The exchange ratios have been established by grouping together eligible stock options with similar exercise prices. At the time the Compensation Committee set the exchange ratios, the fair market value of our common stock was \$1.91 per share (the closing price of our common stock on The Nasdaq Global Market on March 22, 2019). The exchange ratios are based on the fair value of the eligible stock options (calculated using the Black-Scholes model) within the relevant grouping. Calculation of fair value takes into account variables such as the volatility of our stock, the expected term of a stock option and interest rates. As illustrated in the table below, the applicable exchange ratios will vary based on the exercise price of the eligible stock option.

<u>Exercise Price Range per Share</u>	<u>Number of Outstanding Eligible Options</u>	<u>Exchange Ratio (Surrendered Stock Options to New Stock Options)</u>
\$2.97-\$10.99	4,143,604	2 to 1
	990,587	
\$11.00-\$24.99		3 to 1
	745,906	
\$25.00-And Up		4 to 1

The total number of shares of common stock issuable upon exercise of new stock options will be determined by dividing the number of shares underlying the surrendered stock option by the applicable exchange ratio and rounding up to the nearest whole share. For purposes of illustration, if an employee holds a stock option to purchase 10,000 shares of common stock with an exercise price of \$25 per share, the employee would be entitled to exchange that option for a replacement stock option to purchase 2,500 shares of common stock after applying the applicable 4:1 exchange ratio. An eligible employee who holds an

option to purchase 10,000 shares of common stock with an exercise price of \$20 per share could exchange that option for a replacement stock option to purchase 3,334 shares of common stock after applying the applicable 3:1 exchange ratio. An eligible employee who holds an option to purchase 10,000 shares of common stock with an exercise price of \$10 per share could exchange that option for a replacement stock option to purchase 5,000 shares of common stock after applying the applicable 2:1 exchange ratio. All replacement stock options granted based on the foregoing exchange ratios would have an exercise price equal to the fair market value of our common stock at the time of the exchange.

Vesting Schedules for New Options

New stock option awards will not be vested on the date of grant. To the extent an eligible stock option is vested as of the Exchange Date, such vested portion may be exchanged for a new stock option that will vest as to 50% on the first anniversary and 50% on the second anniversary of grant date, and to the extent an eligible stock option is unvested as of the Exchange Date, such unvested portion may be exchanged for a new stock option that will vest 50% on the second anniversary and 50% on the third anniversary from the date of grant. These new vesting schedules support the nature of stock options as an incentive vehicle, recognize the prior services and contributions by eligible participants and provide us with valuable additional years of employee and director retention during an important time for the Company.

Term for New Options

The new stock options will expire seven (7) years following the date the new options are granted.

Intended Implementation of the Option Exchange As Soon As Practicable Following Stockholder Approval

We expect that the Option Exchange will begin as soon as practicable, but no later than four (4) months following stockholder approval, if received. Our Board in its discretion reserves the right to amend, postpone or, under certain circumstances, cancel the Option Exchange once it has commenced, but the Option Exchange will not be materially amended in a manner more beneficial to eligible participants without first seeking additional stockholder approval.

Impact of Option Exchange on Surrendered Options

All shares of stock options surrendered under the Option Exchange that are not replaced by shares of new stock options, which number is estimated to be 3,291,725 shares assuming 100% participation in the Option Exchange, will be returned to the share reserve of the Amended 2009 Plan and will be available for future grant of equity awards under the Amended 2009 Plan.

Option Exchange Process

Additional information about how we expect to conduct the Option Exchange, if approved by stockholders, is set forth below. While the terms of the Option Exchange are expected to conform to the material terms described above in this Proposal No. 4, we may find it necessary or appropriate to change the terms of the Option Exchange to take into account our administrative needs, accounting rules, company policy decisions or to comply with any comments we receive from the SEC. We may decide not to implement the Option Exchange even if stockholder approval of the Option Exchange is obtained, or we may delay, amend or terminate the Option Exchange once it is in progress. The final terms of the Option Exchange will be described in the exchange offer documents that will be filed with the SEC and available at www.sec.gov.

Overview of the Option Exchange Process

Upon commencement of the Option Exchange, eligible participants holding eligible stock option awards will receive a written offer setting forth the terms of the Option Exchange and may voluntarily elect to participate. All of our employees, including our executive officers, and all of our non-employee directors of the Company who hold eligible stock options and are continuously employed by, or providing service to, the Company from the Commencement Date through the Exchange Date are eligible to participate in the Option Exchange. Eligible participants will be given at least 20 business days to elect to surrender eligible stock options in exchange for a smaller number of new stock options. Upon completion of the Option Exchange, surrendered stock options will be cancelled and new stock options will be granted. Cancelled options will then be available for future grant under the Amended 2009 Plan.

The Amended 2009 Plan will govern all terms or conditions of new stock options not specifically addressed by the Option Exchange described in this proxy statement. Additionally, it is anticipated that new options will be incentive stock options (that is, they will qualify for the tax-favored treatment) to the extent allowable under Section 422 of the Internal Revenue Code and available for grant under our Amended 2009 Plan.

Election to Participate

Eligible participants will receive a tender offer document and will be able to voluntarily elect to participate in the Option Exchange. If you are both a stockholder and employee or director holding stock options that are potentially subject to the Option Exchange, note that voting to approve the Option Exchange does not constitute an election to participate in the Option Exchange. The written exchange offer documents described above will be provided if and when the Option Exchange is commenced. You can elect to participate after that time only.

Impact of Option Exchange on Number of Options Issued

The Compensation Committee established exchange ratios that will result in the issuance of a lesser number of stock options through the Option Exchange, which have been grouped together based on similar exercise prices. The following table illustrates the impact of the Option Exchange on the number of stock options outstanding, assuming that 100% of eligible participants exchange 100% of their eligible stock options in the Option Exchange.

Exercise Price Range per Share	Outstanding Eligible Options			Exchange	
	Number of Existing Options (shares)	Weighted Average Exercise Price (\$)	Exchange Ratio	Total New Options Granted (shares)	Potential Net Shares Recaptured
\$2.97-\$10.99	4,143,604	\$6.86	2 to 1	2,071,764	2,071,840
\$11.00-\$24.99	990,587	\$16.62	3 to 1	330,150	660,437
\$25.00-And Up	745,906	\$39.27	4 to 1	186,458	559,448
Totals:	5,880,097	\$12.61		2,588,372	3,291,725

As described above under the section "Exchange Ratios," the total number of shares of common stock issuable upon exercise of new stock options that a participating employee or director will receive with respect to a surrendered stock option will be determined by dividing the number of shares surrendered by the applicable exchange ratio and rounding up to the nearest whole share.

Effect on Stockholders

Under the terms of the Option Exchange, the new stock options are meant to have a fair value that will be approximately equal, on an aggregate basis and grouped by similar exercise prices, to the fair value of the cancelled stock options they would replace. While we cannot predict how many employees or directors will elect to participate in the Option Exchange, assuming that 100% of eligible employees and directors participate in the Option Exchange and based on the exchange ratios established by the Compensation Committee, eligible stock options for approximately 5,880,097 shares of common stock may be surrendered and cancelled, which would result in stock options for approximately 2,588,372 shares of common stock being issued, resulting in a net reduction in our stock option overhang of approximately 3,291,725 shares.

Interests of Our Executive Officers and Non-Employee Directors in the Option Exchange

Our executive officers and non-employee directors will be permitted to participate in the Option Exchange. The following table shows the number of shares subject to eligible stock options held by our named executive officers and non-employee directors as of December 31, 2018 and the number of shares subject to new stock options that they may receive assuming, for purposes of illustration only, that each named executive officer and non-employee director decides to exchange all of his or her eligible stock options.

Name	Number of Shares Underlying Eligible Options	Weighted Average Exercise Price (\$)	Weighted Average Remaining Life (years)	Number of Shares that may be Granted in the Option Exchange
Charles J. Link, Jr., M.D. Chief Executive Officer	1,840,282	\$12.94	5.15	807,068
Nicholas N. Vahanian, M.D. President	1,459,810	\$10.89	4.37	661,703
Gene P. Kennedy, M.D. Chief Medical Officer	411,141	\$15.55	7.23	173,236
Carl W. Langren Chief Financial Officer	342,644	\$10.48	7.14	157,159
Chad A. Johnson Director	76,101	\$6.43	9.29	38,050
Thomas A. Raffin Director	210,742	\$10.77	4.72	93,976
Matthew L. Sherman, M.D. Director	91,224	\$4.79	9.36	45,611
Ernest J. Talarico, III Director	171,454	\$10.86	4.95	75,325
Lota S. Zoth Director	120,267	\$14.27	6.71	47,946

Accounting Impact

The incremental compensation cost associated with the Option Exchange will be measured as the excess, if any, of the fair value of each award of new stock option granted to participants in the Option Exchange, measured as of the Exchange Date, over the fair value of the stock options surrendered in exchange for the new stock options, measured immediately prior to the cancellation. We are unable to predict the precise impact the Option Exchange will have on our stock compensation expense as we do not know how many or which employees or directors will exchange their eligible stock options, nor can we compute the future fair value of the stock options. However, the Option Exchange is intended to better align compensation expense with the retention and motivation value that we are trying to capture with our outstanding equity grants, to restore competitive and appropriate employee equity incentives, and to reduce our existing overhang and potential dilution.

Material U.S. Federal Income Tax Consequences of the Option Exchange

The exchange of stock options pursuant to the Option Exchange should be treated as a non-taxable exchange because the new stock options will have an exercise price equal to or greater than the fair market value of our common stock on the grant date. Neither the Company, nor participants in the Option Exchange, should recognize any income for U.S. federal income tax purposes upon the grant of the new stock options. To the extent permissible and available for grant under our Amended 2009 Plan, new stock options granted under the Option Exchange will be incentive stock options for U.S. federal income tax purposes. Tax

effects may vary in other countries; a more detailed summary of tax considerations will be provided to all participants in the Option Exchange documents.

Financial Statements

Our financial statements and other information required by Item 13(a) of Schedule 14A under the Exchange Act are incorporated by reference from our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 5, 2019.

Vote Required

Approval of the Option Exchange requires "For" votes from a majority of the votes cast at the Annual Meeting by the holders of shares present in person or represented by proxy and entitled to vote on this Proposal No. 4, excluding votes of shares owned, beneficially or of record, by our employees and directors. As part of the vote on this proposal, our stockholders are asked to confirm if they were an employee or director of the Company as of the Record Date. If a stockholder confirms that they were an employee or director of the Company as of the Record Date, such votes will not be voted on Proposal No. 4 in the interest of obtaining a disinterested vote of our stockholders. We do not count abstentions and broker non-votes as votes cast and they will have no effect on the vote.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 4.

PROPOSAL 5

OPTION GRANTS TO OUR CEO AND PRESIDENT

On March 22, 2019, our Board approved (with Dr. Link and Dr. Vahanian abstaining), subject to approval by our disinterested stockholders, stock option grants under the Amended 2009 Plan to each of Charles L. Link, Jr., M.D., our Chief Executive Officer, Chief Scientific Officer and Chairman of the Board, and Nicholas N. Vahanian, M.D., our President, current director and director nominee for our 2019 Annual Meeting, to replace certain outstanding grants held by Drs. Link and Vahanian that will expire in May 2019. Such replacement grants are referred to herein as the Replacement Grants.

Issuance of the Replacement Grants is contingent upon (i) stockholder approval of the amendment of the Amended 2009 Plan, as described in Proposal No. 3, (ii) stockholder approval of the Option Exchange, as described in Proposal No. 4 and (iii) stockholder approval of the Replacement Grants as described in this Proposal 5.

Our Board believes that the Replacement Grants are in the best interests of stockholders and the Company, as the Replacement Grants will provide added incentive to motivate and retain our CEO and President.

Background

Each of Dr. Link and Dr. Vahanian hold outstanding stock options to purchase shares of our common stock that are due to expire in May 2019. The below table provides information about such expiring options:

<u>Name</u>	<u>Number of Shares Underlying Unexercised Options</u>	<u>Option Exercise Price</u>	<u>Option Expiration Date</u>	<u>Fully Vested?</u>
Charles J. Link, Jr. M.D.	264,474	\$4.20	5/13/2019	Yes
Chief Executive & Scientific Officer, Chairman of the Board	468,037	\$2.10	5/13/2019	Yes
<i>Total number of expiring options</i>	732,511			
Nicholas N. Vahanian, M.D.	145,451	\$2.10	5/13/2019	Yes
President, Director, 2019 Director Nominee	59,444	\$2.10	5/13/2019	Yes
<i>Total number of expiring options</i>	204,895			

Our Board approved Replacement Grants to purchase 250,000 and 100,000 shares of our common stock to Drs. Link and Vahanian respectively. If this Proposal 5 is approved by our disinterested stockholders, the Replacement Grants shall:

- be granted under the Amended 2009 Plan on the Exchange Date (described under Proposal 3), which is referred to as the Date of Grant with respect to this Proposal 5;
- have an exercise price of 100% of the closing price of the Company's common stock as of the Date of Grant as reported on the Nasdaq Stock Market;
- be incentive stock options to the maximum extent permitted, with the remainder being non-incentive stock options; and
- be subject to vesting, with:
 - 50% of the options vesting on the two year anniversary of the Date of Grant;
 - 25% of the options vesting on the third year anniversary of the Date of Grant; and
 - 25% of the options vesting on the fourth year anniversary of the Date of Grant.

Dr. Link and Dr. Vahanian's security ownership of NewLink is described in the section "Security Ownership of Certain Beneficial Owners and Management" below. On March 1, 2019, Dr. Link and Dr. Vahanian were respectively granted options to purchase 500,000 and 185,000 shares of our common stock at a purchase price of \$1.80 per share under our 2009 Plan, with 50% subject to time-based vesting, 25% subject to performance-based vesting and 25% subject to event-based vesting.

Rationale

With a substantial number of Drs. Link and Vahanian's vested options due to expire in May 2019, our Board determined that it would be in the best interests of our stockholders and the Company to award new options as partial replacement for such expiring stock options.

Our Board considered that the Replacement Grants would not have a substantial negative dilutive impact on the Company, particularly considering that options to purchase an aggregate 937,406 shares of common stock were expiring while options to purchase only an aggregate of 350,000 were proposed to be issued. Our philosophy with respect to dilution and our historical dilution is described in Proposal 3. Moreover, our Board determined that the exercise price of 100% of the closing price of the Company's common stock as of the Date of Grant was fair.

The expiring options are already fully vested and thus are not a strong incentive for continued service by Drs. Link and Vahanian. The new stock option awards will not be vested on the date of grant and are subject to time-based vesting. These new vesting schedules support the nature of stock options as an incentive vehicle, recognize the valuable prior services and contributions each of Drs. Link and Vahanian have provided to the Company for more than a decade to the Company and provide us with valuable additional years of employee and director retention during an important time for the Company.

Vote Required

Approval of the Replacement Grants requires "For" votes from a majority of the votes cast at the Annual Meeting by the holders of shares present in person or represented by proxy and entitled to vote on this Proposal No. 5, excluding votes of shares owned, beneficially or of record, by Dr. Link and Dr. Vahanian in the interest of obtaining a disinterested vote of our stockholders. We do not count abstentions and broker non-votes as votes cast and they will have no effect on the vote.

Although our Board is not required to seek or receive stockholder approval to issue option grants under our Amended 2009 Plan, our Board made the issuance of Replacement Grants contingent on stockholder approval in the interest of good corporate governance. Our Board believes that approval of the Replacement Grants by our disinterested stockholders is in the best interests of us and our stockholders because it appropriately compensates our CEO and President, who we believe are important to our success. If our disinterested stockholders do not approve the Replacement Grants, but our stockholders approve the amendment of the Amended 2009 Plan, then our Board or Compensation Committee may nevertheless make option grants, including option grants materially similar to those described in this Proposal 5, to Dr. Link and Dr. Vahanian at any time during the year without notice to, or the consent of, the stockholders, if our Board or Compensation Committee determines that making such option grants would be in the best interests of the Company and our stockholders, although they do not plan to do so at this time.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE IN FAVOR OF PROPOSAL 5.

PROPOSAL 6

RATIFICATION OF SELECTION OF KPMG LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our Audit Committee has selected KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019 and has further directed that management submit the selection of independent registered public accounting firm for ratification by the stockholders at the Annual Meeting. KPMG LLP has audited our financial statements since inception in 1999. Representatives of KPMG LLP are expected to be present at the Annual Meeting. They will have an opportunity to make a statement if they so desire and will be available to respond to appropriate questions.

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

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

Principal Accountant Services and Fees

The following table represents aggregate fees billed to the Company for the fiscal years ended December 31, 2018 and December 31, 2017, by KPMG LLP, our principal accountant. All tax fees described below were pre-approved by our Audit Committee.

	Year Ended	
	2018	2017
Audit Fees ⁽¹⁾	\$524,000	\$606,904
Audit-related Fees	—	—
Tax Fees ⁽²⁾	\$114,660	\$101,261
All Other Fees	—	—
Total Fees	\$638,660	\$708,165

⁽¹⁾ Represents fees for the audit of our annual financial statements and of our internal control over financial reporting, review of our quarterly financial statements included in our Forms 10-Q, accounting consultations and the issuance of consents and comfort letters.

⁽²⁾ Consists of fees for tax services provided to the Company, including tax planning and compliance services and the review of certain tax returns.

Pre-Approval Policies and Procedures

Our Audit Committee has adopted a policy and procedures for the pre-approval of audit services, audit-related services and tax services rendered by our independent registered public accounting firm. The policy generally pre-approves specified services in the defined categories of audit services, audit-related services, and tax services up to specified amounts. Pre-approval may also be given as part of our Audit Committee's approval of the scope of the engagement of the independent registered public accounting firm or on an individual explicit case-by-case basis before the independent registered public accounting firm is engaged to provide each service. The pre-approval of services has been delegated to the Chairperson of our Audit Committee, but the decision must be reported to the full Audit Committee at its next scheduled meeting.

In connection with the audit of the 2018 financial statements, our Audit Committee entered into an engagement agreement with KPMG LLP which sets forth the terms by which KPMG LLP was to perform audit services for the Company.

Report of Our Audit Committee ⁽¹⁾

Our Audit Committee has reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2018 with management of the Company. Our Audit Committee has discussed with the independent registered public accounting firm the matters required to be discussed by Auditing Standard 1301, *Communications with Audit Committee*, as adopted by the Public Company Accounting Oversight Board, or PCAOB. Our Audit Committee has also received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent accountants' communications with our Audit Committee concerning independence, and has discussed with the independent registered public accounting firm the accounting firm's independence.

Based on the foregoing, our Audit Committee has recommended to our Board of Directors that the audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

AUDIT COMMITTEE

Ms. Lota Zoth (Chair)
Mr. Ernest J. Talarico, III
Dr. Thomas A. Raffin

⁽¹⁾ The material in this Audit Committee report is not "soliciting material," is not deemed "filed" with the Commission and is not to be incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

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

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the ownership of our common stock as of March 20, 2019, except as set forth below, by: (i) each current director and nominee for director; (ii) each of the named executive officers specified in the Summary Compensation Table; (iii) all executive officers and directors of the Company as a group; and (iv) all those known by the Company to be beneficial owners of more than 5% of its common stock. The percentage of shares beneficially owned is computed on the basis of 37,276,102 shares of our common stock outstanding as of March 20, 2019. Shares of our common stock that a person has the right to acquire within 60 days of March 20, 2019 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person.

Names of Beneficial Owner	Shares	Percentage
5% Stockholders		
	Total	
Stine Seed Farm, Inc. ⁽¹⁾	7,857,732	21.1 %
Renaissance Technologies LLC ⁽²⁾	2,061,013	5.5 %
BlackRock Inc. ⁽³⁾	1,871,127	5.0 %
Directors and Named Executive Officers		
Charles J. Link, Jr., M.D. ⁽⁴⁾	2,531,230	6.4 %
Nicholas N. Vahanian, M.D. ⁽⁵⁾	1,538,357	4.0 %
Eugene P. Kennedy, M.D. ⁽⁶⁾	296,632	*
Thomas A. Raffin, M.D. ⁽⁷⁾	275,363	*
Ernest J. Talarico, III ⁽⁸⁾	209,519	*
Lota S. Zoth ⁽⁹⁾	128,173	*
Matthew L. Sherman, M.D. ⁽¹⁰⁾	48,925	*
Chad A. Johnson ⁽¹¹⁾	46,569	*
All Executive Officers & Directors as a Group (9 persons)⁽¹²⁾	5,350,450	12.7 %

*Represents beneficial ownership of less than 1%.

- (1) Address: 22555 Laredo Trail, Adel, Iowa 50003, Based solely upon a Schedule 13D filed with the SEC on October 6, 2017.
- (2) Address: 800 Third Avenue, New York, New York 10022. Based solely upon a Schedule 13G filed with the SEC on February 12, 2019 reflecting the beneficial ownership by Renaissance Technologies LLC as of December 10, 2018.
- (3) Address: 55 East 52nd Street, New York, New York 10055. Based solely upon a Schedule 13G filed with the SEC on February 11, 2019 reflecting the beneficial ownership by BlackRock Inc. as of January 31, 2019.
- (4) Includes 2,266,950 shares Dr. Link has the right to acquire through the exercise of stock options within 60 days of March 20, 2019 and 25,139 shares held by his spouse.
- (5) Includes 1,497,168 shares Dr. Vahanian has the right to acquire through the exercise of stock options within 60 days of March 20, 2019.
- (6) Includes 283,281 shares Dr. Kennedy has the right to acquire through the exercise of stock options within 60 days of March 20, 2019.
- (7) Includes 210,742 shares Dr. Raffin has the right to acquire through the exercise of stock options within 60 days of March 20, 2019.
- (8) Consists of 171,454 shares Mr. Talarico has the right to acquire through the exercise of stock options within 60 days of March 20, 2019, 32,223 shares of common stock held by Mr. Talarico, 977 shares of common stock held by Ernie Talarico Roth IRA, 1,737 shares of common stock held by Kelli Talarico Roth IRA, 1,564 shares of common stock held by son's trust and 1,564 shares of common stock held by daughter's trust.
- (9) Includes 120,267 shares Ms. Zoth has the right to acquire through the exercise of stock options within 60 days of March 20, 2019.
- (10) Includes 48,925 shares Dr. Sherman has the right to acquire through the exercise of stock options within 60 days of March 20, 2019.
- (11) Includes 46,569 shares Mr. Johnson has the right to acquire through the exercise of stock options within 60 days of March 20, 2019.
- (12) Includes 4,851,708 shares issuable upon exercise of stock options exercisable within 60 days of March 20, 2019 and 498,742 shares of common stock held by our current directors and executive officers, including Charles J. Link, Jr., M.D., Nicholas N. Vahanian, M.D., Eugene P. Kennedy, M.D., Carl W. Langren, Thomas A. Raffin, M.D., Ernest J. Talarico, III, Lota S. Zoth, Matthew L. Sherman, M.D. and Chad A. Johnson. In the case of Carl W. Langren, 49,691 shares of common stock are held by a trust of his spouse, who is the grantor of the trust and such shares are subject to a loan and pledge agreement.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors, executive officers and persons who own more than 10% of a registered class of our equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of common stock and other equity securities of the Company. Directors, executive officers and greater than 10% stockholders are required by SEC regulation to furnish the Company with copies of all Section 16(a) forms they file.

To our knowledge, based solely on a review of the copies of such reports furnished to the Company and written representations that no other reports were required, during the fiscal year ended December 31, 2018, the Company believes that all reports required by Section 16(a) of the Exchange Act to be filed by our officers, directors and greater than 10% beneficial owners were complied with.

DIRECTOR COMPENSATION

The following table shows certain information with respect to the compensation of all of our non-employee directors for the fiscal year ended December 31, 2018.

Name	Cash Compensation (1)	Option Awards (\$) (2)(3)(4)	Total (\$)
Paul R. Edick ⁽⁵⁾	\$33,625	\$0	\$33,625
Chad A. Johnson	\$48,733	\$344,583 (6)	\$393,316
Paolo Pucci ⁽⁷⁾	\$71,029	\$106,000	\$177,029
Thomas A. Raffin, M.D.	\$98,262	\$106,000	\$204,262
Matthew L. Sherman, M.D.	\$45,845	\$313,077 (8)	\$358,922
Ernest J. Talarico, III	\$69,000	\$106,000	\$175,000
Lota Zoth	\$75,125	\$106,000	\$181,125

- (1) Cash compensation paid quarterly based on the annual amount of \$45,000 for all Non-Employee Directors with additional annual cash compensation of \$27,000 for Lead Independent Director, \$18,000, \$18,000, \$15,500 and \$9,000 for the Chairs of the Audit, Science, Compensation and Nominating and Corporate Governance Committees, respectively; and \$12,000, \$10,000, \$10,000 and \$6,500 for members of the Audit, Compensation, Science and Nominating and Corporate Governance Committees, respectively.
- (2) The assumptions we used in valuing options are described under the caption "Share-Based Compensation" in note 2 to our financial statements included in our Annual Report on Form 10-K filed March 5, 2019. This column reflects compensation expense that would be recorded under FASB ASC topic 718 as stock-based compensation in our financial statements for the indicated year in connection with options we granted in the indicated year, disregarding the effects of any estimate of forfeitures related to service-based vesting.
- (3) The aggregate number of shares subject to stock option awards outstanding for each non-employee director as of December 31, 2018 are as follows:

	Option Awards
Chad A. Johnson	76,101
Thomas A. Raffin, M.D.	210,742
Ernest J. Talarico, III	171,454
Matthew L. Sherman, M.D.	91,224
Lota Zoth	120,267

- (4) Grant date fair value of 27,777 options granted in 2018 at an exercise price of \$5.33, which was the per share closing price of our common stock on the NASDAQ Global Market on the date of grant.
- (5) Mr. Edick resigned from the Board effective as of April 30, 2018.
- (6) Grant date fair value of 27,777 options granted at an exercise price of \$5.33 and 48,324 options granted at an exercise price of \$7.07, which was the per share closing price of our common stock on the NASDAQ Global Market on the date of grant in each instance.
- (7) Dr. Pucci resigned from the Board effective as of October 31, 2018.
- (8) Grant date fair value of 27,777 options granted at an exercise price of \$5.33 and 63,447 options granted at an exercise price of \$4.56, which was the per share closing price of our common stock on the NASDAQ Global Market on the date of grant in each instance.

Non-Employee Director Compensation

The following compensation components are paid to our non-employee directors:

- Annual cash retainer fees;
- An equity grant upon initial election or appointment to our Board; and
- An annual equity grant.

Our non-employee director compensation program as in effect for the fiscal year ended December 31, 2018 is as described below. For a description of our compensation program in effect for prior years, please refer to the proxy statement for our 2018 Annual Meeting of stockholders. Under our program, each non-employee director was entitled to receive annual cash retainer fees in the amounts set forth below and were paid in cash quarterly on the first day of each quarter during their annual term commencing upon their election or re-election at each Annual Meeting of Stockholders. Such amounts were pro-rated for appointments made to our Board between our annual meetings.

Director Compensation	2018 #
Annual retainer fee payable to all non-employee directors	\$ 45,000
Additional annual retainer fee payable to the Lead Independent Director of our Board	\$ 27,000
Additional annual retainer fee payable to our Audit Committee Chair	\$ 18,000
Additional annual retainer fee payable to other Audit Committee members	\$ 12,000
Additional annual retainer fee payable to our Scientific Committee Chair	\$ 18,000
Additional annual retainer fee payable to our Compensation Committee Chair	\$ 15,500
Additional annual retainer fee payable to other Compensation Committee members	\$ 10,000
Additional annual retainer fee payable to our Nominating and Corporate Governance Committee Chair	\$ 9,000
Additional annual retainer fee payable to other Nominating and Corporate Governance Committee members	\$ 6,500

effective March 2018

During 2018, upon election to our Board, each new non-employee director would have been eligible to receive an initial grant of stock options for a number of shares equal to \$250,000 divided by the per share grant date fair value that will be used for reporting compensation under applicable accounting guidance. Additionally, during the term of his or her service on our Board, each non-employee director receives an annual grant comprised of stock options for a number of shares equal to \$150,000 divided by the per share grant date fair value that will be used for reporting compensation under applicable accounting guidance. During 2018, we made such annual grants pursuant to our 2009 Plan since our 2010 Non-Employee Directors' Stock Award Plan did not have sufficient shares to cover such grants and the Board elected to reduce the number of shares underlying the 2018 stock option grants to \$100,000 for each non-employee director.

We also reimburse our directors, including our employee directors, for their reasonable expenses incurred in attending meetings of our Board and the committees of our Board. Other than reimbursement of any such reasonable expenses, our employee directors do not receive compensation for their service on our Board.

Director Stock Ownership Guidelines

Our stock ownership guidelines for non-employee directors anticipate that each director will, by December 31, 2019, hold shares of our common stock representing at least \$150,000 worth of common stock or 10,000 shares, whichever is less. All of our directors currently meet stock ownership guidelines or are making acceptable progress toward their required level.

Our executive officers are appointed by and serve at the direction of our Board of Directors. There are no family relationships between our directors, director nominees and executive officers.

Our Named Executive Officers are:

Name	Age	Title
Charles J. Link, Jr., M.D.	59	Chairman of the Board and Chief Executive and Scientific Officer
Nicholas N. Vahanian, M.D.	51	President
Eugene P. Kennedy, M.D.	50	Chief Medical Officer

Charles J. Link, Jr., M.D., See Dr. Link's biography in "Proposal Number 1-Election of Directors."

Nicholas N. Vahanian, M.D., See Dr. Vahanian's biography in "Proposal Number 1-Election of Directors."

Eugene P. Kennedy, MD, FACS, has served as our Chief Medical Officer since November 2017, where he leads clinical development across all immuno-oncology product candidates as well as investigator initiated trials. From January 2014 to November 2017, Dr. Kennedy served as our Vice President for Clinical and Medical Affairs. Prior to joining NewLink Genetics, he was on faculty and clinical staff at Thomas Jefferson University in Philadelphia, Pennsylvania where he served as Associate Professor of Surgery and held leadership positions as Chief of the Section of Pancreaticobiliary Surgery and co-director of the Jefferson Pancreas, Biliary, and Related Cancers Center from January 2006 to December 2013. Previously, Dr. Kennedy held faculty positions at Johns Hopkins Hospital and the Louisiana State University School of Medicine. He has considerable experience in clinical trial design and implementation, leading both investigator initiated and industry-sponsored efforts.

Our Chief Financial Officer is Carl W. Langren, age 63. Mr. Langren was not a Named Executive Officer as of the end of our 2018 fiscal year.

Carl W. Langren has served as our Chief Financial Officer since July 2018. Previously, he was our Vice President of Finance of NewLink since November 2011 and has also been Chief Financial Officer of our subsidiary BioProtection Systems Corporation since February 2005. Prior to NewLink, Mr. Langren served as Chief Financial Officer for each of Housby Mixer Group from 1998 to 2002 and Equity Dynamics, Inc from 1988 to 1989. He also served as a Principal in Capital Management Solutions, President of Iowa Machinery and Supply, Treasurer of DFM Corporation, and Tax Manager with McGladrey Pullen and Company. Mr. Langren received a BBA with highest honors in accounting from the University of Iowa in Iowa City, Iowa.

EXECUTIVE SUMMARY OF EXECUTIVE COMPENSATION

We have made progress in our efforts to rebuild and refocus the Company for future success. In 2018 we published further clinical results on indoximod that suggest it has significant activity in combination therapy for a variety of cancer indications. We presented numerous times through the year, including final results from two Phase 2 studies of indoximod at the 2018 American Society of Clinical Oncology (ASCO) Annual Meeting.

Beyond our clinical results and progress, our financial position is strong. We ended 2018 with cash and cash equivalents totaling \$120.7 million, which we project is sufficient to fund planned operations through 2021. As we enter 2019 with a strong cash position, our intention is to focus on developing the best potential registration strategy for indoximod and further developing our pipeline assets, including NLG207. However, we also realize that as we continue to advance our product candidates through clinical trials, pursue regulatory approval of our product candidates, and prepare for one or more of our product candidates receiving marketing approval, our stock price has declined due to various internal and external factors including clinical success and market perception, among others.

As our stock price has declined, our Compensation Committee has adjusted our pay program to better reflect our new reality of a lower market capitalization. Actions taken include:

- Revising our peer group for 2018 (and 2019);
- Freezing 2018 base salaries at 2017 post-voluntary reductions;
- Freezing bonus opportunities;
- Granting significantly less equity value; and

- Proposing an option exchange program to support incentivizing our employees in this new reality.

As described throughout this CD&A, our stock price performance has had a significant impact on compensation results as well. While target pay levels have been lowered, the actual value received (or "realizable") by executives is significantly lower, an indication that our pay for performance philosophy is working and management and stockholders have aligned interests. We believe our Compensation Committee has refined our executive compensation program to reflect our current size, strategy, and operational priorities, and motivated and incentivized our management team to build long-term, sustainable stockholder value.

Consideration of Say-on-Pay Results and Stockholder Outreach

At our 2018 annual stockholder meeting, our annual non-binding advisory vote on executive compensation ("say-on-pay") vote was approved by a substantial majority of our voting shareholders. The Compensation Committee reviewed these final vote results, which we believe reinforces our pay for performance philosophy and the appropriateness of our compensation structure. The Compensation Committee determined that the structure of our executive compensation policies continues to be appropriately aligned to the achievement of Company goals and objectives and stockholder best interests. We believe that compensation program enhancements of the past several years, as well as our commitment to improved transparency in our CD&A disclosure, have resulted in a compensation program that best serves our Company, our executives, and our stockholders. That said, the Compensation Committee and management recognize the value of engaging in a dialogue with our stockholders, and we expect to review our compensation practices and continue to consider stockholder feedback on an ongoing basis to ensure alignment between our executive officers' compensation, our business objectives, and the interests of our stockholders.

How Our Compensation Program Works

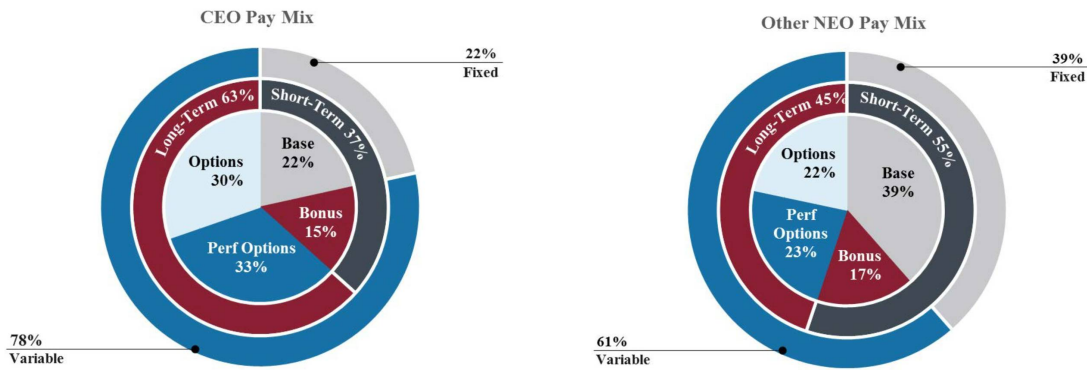
Our executive compensation philosophy continues to be based on attracting and retaining top talent while providing competitive compensation that creates a direct, meaningful link between business results and compensation opportunities. We rely on the following three primary elements:

Annual	Base Salary	Base salaries are set to be competitive to the marketplace and are important in attracting and retaining talented executives. Recognition of an individual's role and responsibilities; provides fixed competitive pay for retention purposes.
	Short-Term Incentives	Cash incentives are designed to reward the achievement of annual corporate and individual objectives.
Multi-Year	Long-Term Equity	<p>Long-term equity awards are delivered as time-based and performance-based stock options.</p> <p>These awards incentivize executives to create and deliver long-term shareholder value, while also providing a retention vehicle for our executive talent.</p> <p>In 2018, 50% of equity awards to our top executives were delivered as performance-based equity.</p>

We view each of the elements of our compensation program as related but distinct, and we have not established any formal policies or guidelines for allocating compensation between the elements. For example, we do not believe that significant compensation derived from one element of compensation, such as equity appreciation, should adversely affect compensation from other elements, such as salary or bonus.

Executive Target Pay Mix

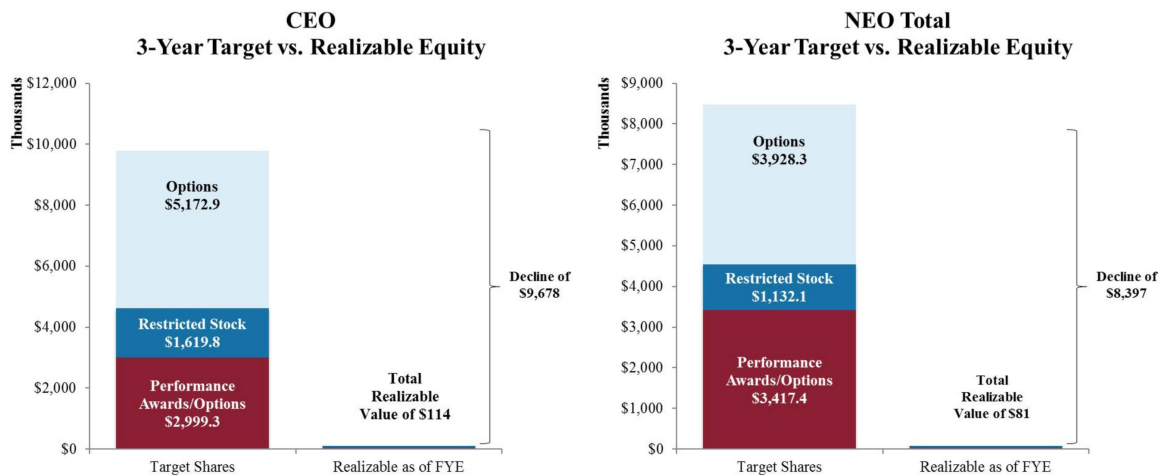
Consistent with our desire to align pay and performance, we take the above-mentioned elements and more heavily weight their distribution towards variable or at-risk pay. Although our Compensation Committee does not target a specific allocation for each pay element, the Compensation Committee is nevertheless cognizant of delivering an appropriate balance between fixed and variable elements, as well as short- and long-term incentives, as evidenced here in the following 2018 target pay mix allocation charts:



Realizable Pay

We believe strong pay for performance programs align the short-term and long-term interests of management and stockholders. One way to demonstrate this alignment is to take a snapshot of compensation and note the variance versus the amounts reported as the grant date fair value in the Summary Compensation Table (an accounting value, as required by the SEC).

In light of our stock price performance over the last three years, the stark difference between the grant date target values of equity (the left stacked bar) and the realizable pay (the other bar) illustrates our alignment of pay and performance.



Compensation Governance Practices

Our pay-for-performance philosophy and compensation governance practices provide an appropriate framework for our executives to achieve our financial and strategic goals without encouraging them to take excessive risks in their business decisions. Some of our core practices include:

What We Do	ü	Pay-for-performance philosophy and culture
	ü	At least 50% of NEO annual equity grants are performance-based
	ü	Comprehensive clawback policy for executive officers on cash and equity incentives
	ü	Responsible use of shares under our long-term incentive program
	ü	Strong stock ownership requirements for all executives
	ü	Engage an independent compensation consultant
	ü	Perform an annual risk assessment of our compensation program
	ü	Conduct annual shareholder outreach
	ü	Peer group revised to reflect current market capitalization and stage of development
What We Don't Do	û	No hedging and pledging of Company stock
	û	No excise tax gross-ups
	û	No backdating or repricing of stock option awards, without shareholder approval
	û	No supplemental executive retirement plans
	û	No excessive perquisites

Summary Compensation Table

The following table sets forth information regarding compensation earned during the years ended December 31, 2018 and 2017, by our named executive officers.

Name and Principal Position	Year	Salary (\$)	Bonus (1)	Stock Awards (2)(\$)	Option Awards(3)(\$)	Non-Equity Incentive Plan Compensation (\$)(4)	All Other Compensation (\$)(5)	(6)	Total (\$)
Charles J. Link, Jr., M.D.	2018	593,910	—	—	1,745,244	374,200	76,135	(6)	2,789,489
<i>Chief Executive & Scientific Officer</i>	2017	634,520	—	—	2,288,799	374,200	94,298	(7)	3,391,817
Nicholas N. Vahanian, M.D.	2018	495,002	—	—	712,173	180,915	24,126	(8)	1,412,216
<i>President</i>	2017	552,212	—	—	2,192,081	184,200	53,546	(9)	2,982,039
Eugene P. Kennedy, M.D.	2018	425,000	—	—	589,073	170,000	24,640		1,208,713
<i>Chief Medical Officer</i>	2017	376,007	—	—	589,829	153,000	30,354		1,149,190

- (1) The amounts shown in this column represent the supplementary cash bonuses earned by the named executive officers with respect to the fiscal year in connection with the restructuring of the Company after the failure of the Phase 3 algenpantucel-L clinical trials.
- (2) The assumptions we used in valuing RSUs are described under the caption "Share-Based Compensation" in note 2(1) to our financial statements included in our Annual Report on Form 10-K filed March 5, 2019. This column reflects compensation expense that would be recorded under FASB ASC topic 718 as stock-based compensation in our financial statements for the indicated year in connection with RSUs we granted in the indicated year.
- (3) The assumptions we used in valuing options are described under the caption "Share-Based Compensation" in note 2 to our financial statements included in our Annual Report on Form 10-K filed March 5, 2019. This column reflects compensation expense that would be recorded under FASB ASC topic 718 as stock-based compensation in our financial statements for the indicated year in connection with options we granted in the indicated year, disregarding the effects of any estimate of forfeitures related to service-based vesting.
- (4) The amounts shown in this column represent the cash bonuses earned by the named executive officers with respect to the fiscal year under our performance-based cash bonus program. Amounts earned with respect to the fiscal year are generally paid in the first quarter of the following year. For additional information, see the section titled "Executive Summary of Executive Compensation" beginning on page 43 of this proxy statement.
- (5) Unless otherwise indicated, amounts in this column represent our contributions under our 401(k) plan.
- (6) Amount includes: (i) a \$24,035 contribution under our 401(k) plan; and (ii) \$52,100 in personal benefits received by Dr. Link that we reimbursed or paid on his behalf in 2018, including rent for an apartment near our Texas office.
- (7) Amount includes: (i) a \$42,698 contribution under our 401(k) plan; and (ii) \$51,600 in personal benefits received by Dr. Link that we reimbursed or paid on his behalf in 2017, including rent for an apartment near our Texas office.
- (8) Amount includes: (i) a \$22,615 contribution under our 401(k) plan; and (ii) \$1,511 in perquisites and personal benefits received by Dr. Vahanian that we reimbursed or paid on his behalf in 2018, including rent for an apartment near our Texas office.
- (9) Amount includes: (i) a \$36,000 contribution under our 401(k) plan; and (ii) \$17,546 in personal benefits received by Dr. Vahanian that we reimbursed or paid on his behalf in 2017, including rent for an apartment near our Texas office.

Narrative Disclosure to Summary Compensation Table

Our executive compensation program consists of three primary components: base salary, short-term incentives, and long-term equity incentives.

Base Salary

Base salary is the primary fixed element of our executive compensation program. We use base salary to compensate our executive officers for services rendered during the fiscal year, and to ensure that we remain competitive in attracting and retaining executive talent.

Upon joining us, each of our executive officers, with the exception of Dr. Link, received an offer letter that provided for an initial base salary. These initial base salaries are the product of negotiation with the executive, but we generally seek to establish salaries that we believe are commensurate with the salaries paid to industry peers with comparable qualifications, experience, responsibilities and performance at similar companies. Our Compensation Committee has also relied on its members' collective experience in the marketplace for determining what they believe to be the market rate of salaries for executives of comparable companies.

Historically, we have not applied, nor do we intend to apply, specific formulas to determine base salary increases. Instead, we annually review corporate and individual performance. Our Compensation Committee examines numerous factors, including the executive's expertise, seniority, position, functional role, level of responsibility and individual performance during the previous year. Further, our Compensation Committee reviews peer and market data as provided by Radford.

In early 2018, after reviewing market data as well as our corporate performance, our Compensation Committee determined to freeze executive base salaries at the reduced levels set in July 2017.

Executive	2017 Base Salary	July 2017 Voluntary Reduction ¹	New Annual Base Salary Rate of 2017	2018 Base Salary	% Change
Charles J. Link, Jr., M.D.	\$659,900	10%	\$593,910	\$593,910	0.0%
Nicholas N. Vahanian, M.D.	\$574,300	10%	\$516,900	\$516,900	0.0%
Eugene P. Kennedy, M.D.	\$425,000	0	\$425,000	\$425,000	0.0%

(1) In July 2017, based on our stock price performance through the first half of the year, our top executive team voluntarily reduced their base salaries by 10%.

Short-Term Cash Incentives

Our performance-based cash incentives are designed to provide executive officers with the opportunity to earn annual cash awards based upon the achievement of pre-specified corporate and individual performance objectives which align with and support NewLink's business strategy.

Shortly before the end of each fiscal year, our Board determines the annual target bonus percentages for our executive officers for the upcoming fiscal year based on the recommendations of our Compensation Committee. Generally, each executive officer is eligible for a discretionary annual cash incentive payment up to a specified percentage of the executive officer's salary. Our Board sets these annual target bonus percentages at levels that, upon achievement of the target percentage, are likely to result in cash bonus payments that our Board believes to be approximately the level paid to high-performing executives of comparable companies in the biopharmaceutical industry.

For 2018, based upon recommendations of our Compensation Committee with the assistance of Radford, our Board maintained target bonus amounts for Dr. Link, Dr. Vahanian, and Dr. Kennedy equal to 70%, 50%, and 40% of their respective base salaries. Our Board reserved the ability to grant bonuses in excess of the executives' target bonus percentages for extraordinary performance.

2018 Performance Objectives

The performance goals for each fiscal year are determined by the Board in the first quarter of each fiscal year, and typically include corporate and individual performance objectives which are tailored to each executive's role and responsibilities.

For 2018, our CEO, Dr. Charles Link, had the following performance goals:

Metric	Weight	Exceeds	Meets Expectations (100%)	Partially Meets Expectations (50%)	Low (0%)
Advance Acute Myelogenous Leukemia Program	35%	Enroll patients in Phase 2 AML trial	If "Go", Develop Phase 2 plan and protocol. If "No Go", identify a specific capital allocation/investment alternative to AML.	Complete Data Analysis and "Go No Go" decision	Not Accomplished
Complete Corporate Reorganization	20%		Accomplished		Not Accomplished
Advance Pediatric Brain Tumor Program	35%	Enroll patients in Phase 2 pediatric brain tumor trial	If "Go", Develop Phase 2 plan and protocol If "No Go", Develop plan for alternate indication and/or candidate	Complete Data Analysis and "Go No Go" decision	Not Accomplished
Continue development of NLG802 (indoximod pro-drug)	10%	Phase 2 Plan of NLG802 developed	Complete NLG802 Phase IA Clinical Trial Enrollment		Not Accomplished

Our other NEOs had similar corporate goals with specified weightings and performance measures, as follows:

Executive	Metric	Weighting
Nicholas Vahanian	Phase 3 Trial of Indoximod	60%
	Phase II Pancreatic Trial (AstraZeneca Collaboration)	20%
	First patients treated in new disease indications with indoximod or NLG 919 (renal cancer, bladder cancer, head and neck cancer, NSCLC or other)	20%
Eugene Kennedy	Phase 3 Trial of Indoximod	40%
	Publication Planning and execution	25%
	Effective execution of the Phase II Pancreatic Trial (AstraZeneca Collaboration)	25%
	First patients treated in new disease indications with indoximod or NLG 919 (renal cancer, bladder cancer, head and neck cancer, NSCLC or other)	10%

At the end of the fiscal year, our Compensation Committee assesses the accomplishments of each executive versus each of the aforementioned goals and recommends earned bonus amounts to the Board for approval. The Compensation Committee retains the ability to apply negative discretion to adjust bonus amounts lower based on other corporate performance factors.

2018 Earned Bonuses

In 2018, the Compensation Committee took a two-tiered approach at determining the amount of earned bonus for each executive based on the current company conditions as well as actual performance. First, the Compensation Committee looked at the performance of each executive against each of their stated performance goals. Secondly, in light of current events and the refocus of the company as a whole, the Compensation Committee determined it to be in the best interests of the company and its stockholders to use the bonus earning as a retention device in efforts to retain key personnel. In 2018, the Compensation Committee determined that executives had achieved different percentages of their bonus objectives for 2018, and bonuses were paid accordingly.

Final bonus payouts for 2018 performance were as follows:

Executive	2018 Target Bonus			2018 Earned Bonus		
	% ⁽¹⁾	\$	% ⁽²⁾	% ⁽³⁾	% ⁽⁴⁾	\$
Charles J. Link, Jr., M.D.	70%	\$415,730	35%	28%	63%	\$374,200
Nicholas N. Vahanian, M.D.	50%	\$258,450	25%	10%	35%	\$180,915
Eugene P. Kennedy, M.D.	40%	\$170,000	20%	20%	40%	\$170,000

(1) Target bonus percentage represents a percentage of base salary.

(2) Each executive received 50% of their 2018 target bonus as a retention measure.

(3) Represents the additional bonus earned based on performance.

(4) Represents bonus percentage of target bonus actually awarded.

Long-Term Equity Compensation

Equity incentives represent the largest at-risk element of our executive compensation program. Our equity incentives are designed to align the interests of our executive officers with those of our stockholders by creating an incentive for our executive officers to maximize stockholder value and to remain employed with us despite a competitive labor market.

In 2018, target long-term incentive awards were delivered in the form of time-based stock options and performance-based stock options, weighted equally between the two award types. The Compensation Committee believes this vehicle mix further reinforces our pay for performance philosophy, as value is only provided to executives if shareholder value is created and important business milestones are met.

The awards had the following vesting and performance criteria:

Time-vesting Options - These options vest and become exercisable in a series of 48 successive equal monthly installments.

Performance-based Options - These options vest and become exercisable as follows:

- a) 25% of such shares shall vest as to 8.33%, 8.33% and 8.34% on the 1st day of the month following an increase of closing share price on Nasdaq Stock Market by at least 33.33%, 66.66% and 100%, respectively, above the exercise price of the options when measured over 30 consecutive calendar days, provided such increase occurs within four years of the date of grant, otherwise such options shall be cancelled;
- b) 12.50% shall vest on the 1st day of the month following the hiring of a new senior operations executive to oversee the Company's chemistry and manufacturing control ("CMC") activities and clinical trials; and
- c) The remaining 12.50% shall vest on the 1st day of the month following completion of a CMC formulation for indoximod for adult patients and completion of a CMC plan for a pediatric formulation of indoximod, the completion of each to be determined by the Board.

2018 Equity Grants

On March 9, 2018, our Compensation Committee granted the following equity awards to our executives as follows:

Executive	Time-vesting Stock Options (#)	Performance-based Stock Options (#)
Charles J. Link, Jr., M.D.	155,000	155,000
Nicholas N. Vahanian, M.D.	63,250	63,250
Eugene P. Kennedy, M.D.	55,000	55,000

Separation and Release Agreement

In July 2018, John B. "Jack" Henneman III and Brian Wiley ceased to serve as Chief Financial Officer and Chief Commercial Officer of the Company, respectively. Upon his resignation as CFO, Mr. Henneman was appointed to the position of Chief Administrative Officer of the Company to provide transition assistance to the Company until the earlier of November 9, 2018 or the date Mr. Henneman's employment with the Company ends pursuant to his employment agreement dated December 31, 2015. Under this arrangement, Mr. Henneman left the Company effective November 9, 2018.

Severance payments and benefits payable based on their separation and release agreements with respect to each of the terminated officers were as follows:

Mr. John Henneman

1. cash severance of:
 - an accrued base salary and remaining accrued but unused vacation,
 - a lump sum payment of \$42,360 on the date that the revocation period for the release of certain claims expire,
 - bonus for 2018 services of \$152,496 multiplied by the percentage completion of the Company's 2018 corporate goals to be paid no later than March 15, 2019 and
 - continued payment of current base salary for a period of twelve months, following the separation date;
2. reimbursement for COBRA premiums up to November 2019; and
3. (i) one-year of accelerated vesting of certain outstanding and unvested stock options and RSUs granted and (ii) an extension of the exercise period for vested equity awards until November 8, 2020.

Mr. Brian Wiley

1. cash severance of:
 - an accrued base salary and remaining accrued but unused vacation,
 - a lump sum payment of \$18,535 on the date that the revocation period for the release of certain claims expire,
 - bonus for 2018 services of \$68,116 multiplied by the percentage completion of the Company's 2018 corporate goals to be paid no later than March 15, 2019 and
 - \$166,815, representing six months of Mr. Wiley's base salary;
2. reimbursement for COBRA premiums up to January 2019; and
3. (i) one-year of accelerated vesting of certain Awards and (ii) an extension of the exercise period for vested Awards until July 27, 2019.

More detailed information on the resigned officers' severance benefits can be found on the Company's Quarterly Report on Form 10-Q for the period ending September 30, 2018.

Executive Stock Ownership Guidelines

In March 2017, we adopted stock ownership guidelines for our executive officers requiring each individual serving as an executive officer to maintain beneficial ownership of a minimum dollar amount of shares of our common stock. For the purposes of determining stock ownership levels, the following forms of equity interests are included: shares owned by the executive officer directly or through a broker, or held in trust for the benefit of, the executive officer or his or her immediate family members; 50% of shares held as restricted stock; 50% of shares underlying restricted stock units; and 50% of the in-the-money value of vested stock options granted under our equity plans; and other stock or stock equivalent awards determined by the Compensation Committee. The applicable guidelines must be met within three years from the date he or she becomes subject to the stock ownership guidelines to achieve compliance.

Position	Requirement
Chief Executive Officer	3x base salary
President	2x base salary
Other executives	1x base salary

Anti-Hedging and Anti-Pledging Policies

We expressly prohibit our employees and directors from: (i) engaging in hedging transactions or (ii) pledging our stock as collateral.

Federal Tax Considerations

Generally, Section 162(m) of the Internal Revenue Code disallows a tax deduction to any publicly-held corporation for any remuneration in excess of \$1.0 million paid in any taxable year to its chief executive officer and each of its three next most highly-compensated named executive officers (other than its chief financial officer only for fiscal years prior to 2017). Remuneration in excess of \$1.0 million may be deducted if, among other things, it qualifies as "performance-based compensation" within the meaning of the Internal Revenue Code.

The 2017 tax reform legislation removed the "performance-based compensation" exception from Section 162(m). Accordingly, awards made after November 2, 2017, generally are not eligible for the "performance-based compensation" exception and will not be deductible to the extent that they cause the compensation of the affected executive officers to exceed \$1,000,000 in any year. Awards that were made and subject to binding written contracts in effect on November 2, 2017, are "grandfathered" under prior law and can still qualify as deductible "performance-based compensation," even if paid in future years. Our Compensation Committee will continue to monitor these awards and endeavor to ensure that they are deductible if and when paid. While the Compensation Committee considers the deductibility of compensation as one factor in determining executive compensation, the Compensation Committee believes that it is in the best interests of our stockholders to maintain flexibility in our approach to executive compensation and to structure a program that we consider to be the most effective in attracting, motivating and retaining key employees.

Accounting Considerations

We account for equity compensation paid to our employees in accordance with Accounting Standards Codification, or ASC, topic 718, which requires us to measure and recognize compensation expense in our financial statements for all share-based payments based upon an estimate of their fair value over the service period of the award. We record cash compensation as an expense at the time the obligation is incurred.

401(k) Plan

Our employees, including our executive officers, are eligible to participate in our 401(k) plan. Our 401(k) plan is intended to qualify as a tax qualified plan under Section 401 of the Code. Pursuant to the terms of our 401(k) plan, we provide a non-elective employer contribution of up to 3% of each participant's eligible compensation with an additional 2% discretionary contribution, or the Safe Harbor Contribution, with a possibility of additional discretionary contributions.

Other Benefits and Perquisites

We pay a portion of the premiums for medical insurance, dental insurance, life insurance and accidental death and dismemberment insurance benefits to all full-time employees, including our executive officers. These benefits are available to all employees, subject to applicable laws.

Our CEO and President also receive reimbursement or payment on their behalf for rent on an apartment near our Texas office.

Employment Agreements

We have entered into employment agreements with each of the NEOs. The material terms of the agreements that were in effect during fiscal 2018 for the NEOs are summarized below. Each of these agreements also contains severance and change of control provisions discussed under the heading "Potential Payments Upon Termination or Change in Control" beginning on page 56 of this proxy statement.

Employment Agreement with Dr. Charles J. Link, Jr.

Pursuant to the employment agreement between us and Dr. Link that was amended and restated on January 4, 2016, Dr. Link earns an annual base salary, which is subject to annual review and adjustment by our Board. For 2018, Dr. Link earned an annual base salary of \$593,910. Dr. Link is also eligible to receive an annual performance bonus based on his achievement of certain milestones and performance objectives. For 2018, Dr. Link's target bonus was set at 70% of his annual base salary.

The employment agreement with Dr. Link also provides that his employment with us is at-will and may be altered or terminated by either Dr. Link or us at any time. However, if we terminate Dr. Link's employment without just cause or if he resigns for good reason (other than in connection with a change in control of us), as long as Dr. Link executes a general release in favor of us, he will be entitled to receive certain payments and other benefits, which are described in more detail under the heading "Potential Payments Upon Termination or Change in Control" beginning on page 56 of this proxy statement.

The employment agreement with Dr. Link further provides that if we (or any surviving or acquiring corporation) terminate Dr. Link's employment without just cause or if he resigns for good reason within one month prior to or 13 months following the effective date of a change in control, as long as Dr. Link executes a general release in favor of us (or any surviving or acquiring corporation), he will be entitled to receive certain payments and other benefits, which are described in more detail under the heading "Potential Payments Upon Termination or Change in Control" beginning on page 56 of this proxy statement.

Employment Agreement with Dr. Nicholas N. Vahanian

Pursuant to the employment agreement between us and Dr. Vahanian that was amended and restated on January 4, 2016, Dr. Vahanian earns an annual base salary, which is subject to annual review and adjustment by our Board. For 2018, Dr. Vahanian earned an annual base salary of \$516,900. Dr. Vahanian is also eligible to receive an annual performance bonus based on his achievement of certain milestones and performance objectives. For 2018, Dr. Vahanian's target bonus was set at 50% of his annual base salary.

The employment agreement with Dr. Vahanian also provides that his employment with us is at-will and may be altered or terminated by either Dr. Vahanian or us at any time. However, if we terminate Dr. Vahanian's employment without just cause or if he resigns for good reason (other than in connection with a change in control of us), as long as Dr. Vahanian executes a general release in favor of us, he will be entitled to receive certain payments and other benefits, which are described in more detail under the heading "Potential Payments Upon Termination or Change in Control" beginning on page 56 of this proxy statement.

The employment agreement with Dr. Vahanian further provides that if we (or any surviving or acquiring corporation) terminate Dr. Vahanian's employment without just cause or if he resigns for good reason within one month prior to or 13 months following the effective date of a change in control, as long as Dr. Vahanian executes a general release in favor of us (or any surviving or acquiring corporation), he will be entitled to receive certain payments and other benefits, which are described in more detail under the heading "Potential Payments Upon Termination or Change in Control" beginning on page 56 of this proxy statement.

Employment Agreement with Dr. Eugene Kennedy

Pursuant to the employment agreement between us and Dr. Kennedy dated January 4, 2016, Dr. Kennedy earns an annual base salary, which is subject to annual review and adjustment by our Board. For 2018, Dr. Kennedy earned an annual base salary of \$425,000. Dr. Kennedy is also eligible to receive an annual performance bonus based on his achievement of certain milestones and performance objectives. In 2018, Dr. Kennedy's target bonus was set at 40% of his annual base salary.

The employment agreement with Dr. Kennedy also provides that his employment with us is at-will and may be altered or terminated by either Dr. Kennedy or us at any time. However, if we terminate Dr. Kennedy's employment without just cause or if he resigns for good reason (other than in connection with a change in control of us), as long as Dr. Kennedy executes a general release in favor of us, he will be entitled to receive certain payments and other benefits, which are described in more detail under the heading "Potential Payments Upon Termination or Change in Control" beginning on page 56 of this proxy statement.

The employment agreement with Dr. Kennedy further provides that if we (or any surviving or acquiring corporation) terminate Dr. Kennedy's employment without just cause or if he resigns for good reason within one month prior to or 13 months following the effective date of a change in control, as long as Dr. Kennedy executes a general release in favor of us (or any surviving or acquiring corporation), he will be entitled to receive certain payments and other benefits, which are described in more detail under the heading "Potential Payments Upon Termination or Change in Control" beginning on page 56 of this proxy statement.

Confidential Information and Inventions Agreement

Each of our named executive officers has entered into a form agreement with respect to confidential information and inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our confidential information received during the course of employment and, with some exceptions, to assign to us any inventions conceived or developed during the course of employment.

Each of our named executive officers entered into a new form of agreement with respect to confidential information and inventions on January 4, 2016. The terms of these new agreements did not materially change from those to which the executives were previously party.

Outstanding Equity Awards at December 31, 2018

The following table provides information about outstanding stock options and restricted stock units held by each of our named executive officers at December 31, 2018. All of these options or restricted stock units were granted under our 2000 Equity Incentive Plan or our 2009 Plan.

	Number of Shares Underlying Unexercised Options(1)		Number of Shares Underlying Unvested Restricted Stock Units (2)	Option Grant Date	Option Exercise Price	Option Expiration Date
	(#) Exercisable	(#) Unexercisable (3)				
Charles J. Link, Jr., M.D.	264,474	(4)(6)	—	6/1/2007	\$4.20	5/13/2019
	468,037	(4)(6)	—	12/4/2009	\$2.10	5/13/2019
	428,571	—	—	1/1/2009	\$2.97	12/4/2019
	50,792	—	—	4/14/2011	\$7.00	4/13/2021
	44,446	—	—	4/14/2011	\$7.00	4/13/2021
	9,385	—	—	1/19/2012	\$6.87	1/18/2022
	130,615	—	—	1/19/2012	\$6.87	1/18/2022
	10,012	—	—	1/14/2013	\$11.79	1/13/2023
	144,988	—	—	1/14/2013	\$11.79	1/13/2023
	5,162	—	—	1/2/2014	\$21.38	1/1/2024
	103,588	(5)	—	1/2/2014	\$21.38	1/1/2024

	1,181	(5)	2,290		1/2/2015	\$43.65	1/1/2025
	138,839	(5)	690		1/2/2015	\$43.65	1/1/2025
				11,250	1/2/2015	\$43.65	
	—	(5)	2,780		1/4/2016	\$34.73	1/3/2026
	97,296	(5)	33,359		1/4/2016	\$34.73	1/3/2026
				23,320	1/4/2016	\$34.73	
	—	(5)	3,726		1/3/2017	\$10.55	1/2/2027
	78,173	(5)	81,245		1/3/2017	\$10.55	1/2/2027
	40,786	(9)	—		1/3/2017	\$10.55	1/2/2027
	40,786	(10)	—		1/3/2017	\$10.55	1/2/2027
	40,786	(11)	—		1/3/2017	\$10.55	1/2/2027
	40,786	(12)	—		1/3/2017	\$10.55	1/2/2027
	—	(5)	17,858		3/1/2018	\$7.85	2/28/2028
	29,062	(5)	108,080		3/1/2018	\$7.85	2/28/2028
	38,750		— (13)		3/1/2018	\$7.85	2/28/2028
	—		38,750 (14)		3/1/2018	\$7.85	2/28/2028
	—		25,823 (15)		3/1/2018	\$7.85	2/28/2028
	—		25,823 (16)		3/1/2018	\$7.85	2/28/2028
	—		25,854 (17)		3/1/2018	\$7.85	2/28/2028
Nicholas N. Vahanian, M.D.	145,451	(4)(7)	—		6/1/2007	\$2.10	5/13/2019
	59,444	(4)	—		6/1/2007	\$2.10	5/13/2019
	45,160		—		12/4/2009	\$2.97	12/4/2019
	335,792		—		12/4/2009	\$2.97	12/4/2019
	190,476		—		3/3/2010	\$3.07	3/2/2020
	14,286		—		4/14/2011	\$7.00	4/13/2021
	28,571		—		4/14/2011	\$7.00	4/13/2021
	16,159		—		1/19/2012	\$6.87	1/18/2022
	63,841		—		1/19/2012	\$6.87	1/18/2022
	9,385		—		1/14/2013	\$11.79	1/13/2023
	80,615		—		1/14/2013	\$11.79	1/13/2023
	5,128	(5)	—		1/2/2014	\$21.38	1/1/2024
	66,122	(5)	—		1/2/2014	\$21.38	1/1/2024
	1,563	(5)	1,688		1/2/2015	\$43.65	1/1/2025
	77,749	(5)	—		1/2/2015	\$43.65	1/1/2025
				6,250	1/2/2015	\$43.65	
	—	(5)	2,513		1/4/2016	\$34.73	1/3/2026
	61,450	(5)	20,312		1/4/2016	\$34.73	1/3/2026
				14,728	1/4/2016	\$34.73	
	—	(5)	6,954		1/3/2017	\$10.55	1/2/2027
	74,869	(5)	74,427		1/3/2017	\$10.55	1/2/2027
	39,063	(9)	—		1/3/2017	\$10.55	1/2/2027
	39,063	(10)	—		1/3/2017	\$10.55	1/2/2027

	39,062	(11)	—		1/3/2017	\$10.55	1/2/2027
	39,062	(12)	—		1/3/2017	\$10.55	1/2/2027
	—	(5)	12,613		3/1/2018	\$7.85	2/28/2028
	11,859	(5)	39,075		3/1/2018	\$7.85	2/28/2028
	15,812		—	(13)	3/1/2018	\$7.85	2/28/2028
	—		15,813	(14)	3/1/2018	\$7.85	2/28/2028
	—		10,537	(15)	3/1/2018	\$7.85	2/28/2028
	—		10,537	(16)	3/1/2018	\$7.85	2/28/2028
	—		10,550	(17)	3/1/2018	\$7.85	2/28/2028
Eugene P. Kennedy, M.D.	14,170		—		1/7/2014	\$22.85	1/6/2024
	—	(5)	1,226		1/4/2016	\$34.73	1/3/2026
	—	(5)	146		7/13/2017	\$7.73	7/12/2027
	487		209		1/20/2015	\$39.05	1/19/2025
	—		1,250		6/23/2015	\$46.73	6/22/2025
	—	(5)	8,594		11/13/2017	\$8.90	11/12/2027
	—	(5)	9,651		1/3/2017	\$10.55	1/2/2027
	1,875		—		3/11/2014	\$30.48	3/10/2024
	35,830		—		1/7/2014	\$22.85	1/6/2024
	23,958	(5)	16,391		1/3/2017	\$10.55	1/2/2027
	38,888	(5)	11,112		8/9/2016	\$10.78	8/8/2026
	354	(5)	500		7/13/2017	\$7.73	7/12/2027
	9,304		—		1/20/2015	\$39.05	1/19/2025
	8,750		—		6/23/2015	\$46.73	6/22/2025
	10,156	(5)	18,750		11/13/2017	\$8.90	11/12/2027
	50,000		—		5/10/2013	\$15.33	5/9/2023
	28,125		—		3/11/2014	\$30.48	3/10/2024
	9,217	(5)	2,198		1/4/2016	\$34.73	1/3/2026
				250	1/20/2015	\$39.05	
				2,209	1/4/2016	\$34.73	
				1,250	6/23/2015	\$46.73	
	—	(5)	4,889		3/1/2018	\$7.85	2/28/2028
	10,312	(5)	39,799		3/1/2018	\$7.85	2/28/2028
	—		13,750	(13)	3/1/2018	\$7.85	2/28/2028
	13,750		—	(14)	3/1/2018	\$7.85	2/28/2028
	—		9,163	(15)	3/1/2018	\$7.85	2/28/2028
	—		9,163	(16)	3/1/2018	\$7.85	2/28/2028
	—		9,174	(17)	3/1/2018	\$7.85	2/28/2028

- (1) Unless otherwise indicated, these options have a 10-year term and vest over a four-year period, with 25% of the options vesting on the first anniversary of the vesting commencement date and the remaining 75% of the options vesting in equal monthly installments thereafter over the next three years, subject to the recipient's continued employment with us through such vesting dates.
- (2) Unless otherwise indicated, these restricted stock units vest annually over a four-year period, with 25% vesting on each of the first, second, third and fourth anniversaries, subject to the recipient's continued employment with us through such vesting dates.
- (3) This column shows options that were unvested as of December 31, 2018.
- (4) These options vest over a five-year period, with 20% of the options vesting on the first anniversary of the vesting commencement date and the remaining 80% of the options vesting in equal monthly installments thereafter over the next four years, subject to the recipient's continued employment with us through such vesting dates.
- (5) These options vest in equal monthly installments over 48 months.
- (6) Dr. Link was granted a total option of 732,511 shares at \$2.10 per share, which was amended on July 1, 2010 and split into separate grants of 468,037 with a price of \$2.10 and 264,474 with a price of \$4.20.
- (7) Dr. Vahanian was granted a total option of 331,296 shares at \$2.10 per share, which was amended on July 1, 2010 and split into separate grants of 313,673 with a price of \$2.10 and 17,624 with a price of \$4.20.
- (8) This number represents outstanding stock options to purchase our stock that were issued on January 7, 2011 in exchange for options to purchase stock in our subsidiary, BioProtection Systems Corporation.
- (9) These options vest upon completion of current planned Phase 1 equivalency study of new indoximod salt formulation with "completion" measured by the last patient enrolled in such study.
- (10) These options vest upon completion of the current planned Phase 1 study of pro-indoximod new chemical entity with "completion" measured by the last patient enrolled in such study.
- (11) These options vested upon an increase of closing share price of the Company's common stock on the Nasdaq Stock Market by at least 33% above exercise price of the stock options granted on January 3, 2017, when measured over 30 consecutive calendar days (must occur by January 3, 2021 or such shares will be forfeited).
- (12) These options vested upon an increase of closing share price of the Company's common stock on the Nasdaq Stock Market by at least 50% above the exercise price of the stock options granted on January 3, 2017, when measured over 30 consecutive calendar days (must occur by January 3, 2021 or such shares will be forfeited).
- (13) These options vested upon completion of a CMC formulation for indoximod for adult patients and completion of a CMC plan for pediatric formulation of indoximod.
- (14) These options vest on the hiring of a new senior operations executive to oversee the Company's chemistry and manufacturing control ("CMC") activities and clinical trials.
- (15) These options will vest upon an increase of closing share price of the Company's common stock on the Nasdaq Stock Market by at least 33.33% above exercise price of the stock options granted on March 9, 2018, when measured over 30 consecutive calendar days (must occur by March 9, 2022 or such shares will be forfeited).
- (16) These options will vest upon an increase of closing share price of the Company's common stock on the Nasdaq Stock Market by at least 66.66% above exercise price of the stock options granted on March 9, 2018, when measured over 30 consecutive calendar days (must occur by March 9, 2022 or such shares will be forfeited).
- (17) These options will vest upon an increase of closing share price of the Company's common stock on the Nasdaq Stock Market by at least 100% above exercise price of the stock options granted on March 9, 2018, when measured over 30 consecutive calendar days (must occur by March 9, 2022 or such shares will be forfeited).

Potential Payments Upon Termination or Change in Control

Under our 2009 Plan, the vesting of stock options granted to our employees and officers may be accelerated in connection with specified corporate transactions and change in control transactions. Other than as set forth in the tables below, none of our other option grants provide for acceleration of vesting of any options in connection with such a transaction, except for certain options originally granted under our 2000 Equity Incentive Plan that may vest upon a change in control if the acquirer does not assume outstanding option grants. In addition, under our 2010 Non-Employee Directors' Stock Award Plan, in the event of a change in control, 100% of the shares subject to each Director's options will vest.

Under the terms of employment agreements with certain of our named executive officers in effect as of December 31, 2018, if we terminate such named executive officer's employment for "cause" or such named executive officer resigns without "good reason," such named executive officer is entitled to the following: (i) any salary earned but unpaid prior to termination; (ii) any benefits accrued prior to termination; (iii) all accrued but unused vacation; and (iv) any business expenses that were incurred

but not reimbursed as of the date of termination (collectively, the "Accrued Obligations"). Following such termination, vesting of such named executive officer's then outstanding stock options shall cease on the date of such termination.

Under the terms of employment agreements with such named executive officers, if we terminate such named executive officer's employment without cause or such named executive officer resigns with good reason (other than in connection with a change in control), and in each case such named executive officer signs a general release and written acknowledgment of his continuing obligations under his confidentiality and inventions assignment agreement with us, such named executive officer is entitled to the following: (i) payment of the Accrued Obligations; (ii) depending on the named executive officer and as described in the tables below, the equivalent of 24, 18 or 6 months of such named executive officer's base salary as in effect immediately prior to the termination date, payable on the same basis and at the same time as previously paid and subject to employment tax withholdings and deductions; (iii) for certain of the named executive officers and as described in the tables below, a bonus payout equal to the most recent annual bonus paid to the named executive officer or a portion thereof; (iv) depending on the named executive officer and as described in the tables below, payment of such named executive officer's COBRA premiums for 24, 18, 12 or 6 months to be paid in order for such named executive officer to maintain medical insurance coverage that is substantially equivalent to that which such named executive officer received immediately prior to the termination payment of premiums for his group health insurance and (v) 12 months accelerated vesting of such named executive officer's equity compensation awards (so such executive becomes vested in the portion of such awards that would have become vested if executive remained employed for 365 days after the termination date). In the event that such named executive officer breaches his confidentiality, non-compete or non-solicitation obligations under his confidentiality and inventions assignment agreement with us, the payments described above, except for the Accrued Obligations, shall cease, and we shall have no further obligations to such named executive officer with respect thereto. Our obligation to pay such named executive officer's COBRA premiums ceases upon such named executive officer's eligibility for comparable coverage provided by a new employer.

Under the terms of the employment agreements with the named executive officers in effect as of December 31, 2018, if we (or any surviving or acquiring corporation) terminate a named executive officer's employment without cause or a named executive officer resigns with good reason within one month prior to or 13 months following the effective date of a change in control (either constituting a "Change of Control Termination"), and in each case such named executive officer signs a general release and written acknowledgment of his continuing obligations under his confidentiality and inventions assignment agreement with us, such named executive officer is entitled to the following: (i) payment of the Accrued Obligations; (ii) depending on the named executive officer and as described in the tables below, the equivalent of 24, 18 or 12 months of such named executive officer's base salary as in effect immediately prior to the termination date, payable on the same basis and at the same time as previously paid and subject to employment tax withholdings and deductions; (iii) depending on the named executive officer and as described in the tables below, a bonus payout equal to two, one and one-half or one times the most recent annual cash bonus paid to the named executive officer; (iv) depending on the named executive officer as described in the tables below, payment of such named executive officer's COBRA premiums for 18 or 12 months to be paid in order for such named executive officer to maintain medical insurance coverage that is substantially equivalent to that which such named executive officer received immediately prior to the termination payment of premiums for his group health insurance; and (v) we will vest 100% of the shares subject to such named executive officer's equity compensation awards and such vesting shall occur upon the occurrence of the change of control in the case of a Change of Control Termination occurring prior to the change in control or upon termination in the case of a Change of Control Termination occurring after the change of control. If a named executive officer breaches his confidentiality, non-compete or non-solicitation obligations under his confidentiality and inventions assignment agreement with us, the payments described above, except for the Accrued Obligations, shall cease, and we shall have no further obligations to such named executive officer with respect thereto. Our obligation to pay such named executive officer's COBRA premiums ceases upon such named executive officer's eligibility for comparable coverage provided by a new employer.

The following tables reflect the estimated potential payments that would be payable to each named executive officer, upon a termination or change in control of us under the terms of his employment agreement in effect as of December 31, 2017. The amounts shown below reflect only the additional payments or benefits that each named executive officer would have received upon the occurrence of the respective triggering events listed below, but they do not include the value of payments or benefits that would have been earned, or any amounts associated with equity awards that would have vested, absent the triggering event. For purposes of calculating the potential payments set forth in the tables below, we have assumed that (i) the date of termination was December 31, 2018 and (ii) the stock price was \$1.52, which was the per share closing price of our common stock on the NASDAQ Global Market on December 31, 2018.

Charles J. Link, Jr., M.D.	Termination For Just Cause or Resignation Without Good Reason	Termination Without Just Cause or Resignation With Good Reason	Termination Without Just Cause or Resignation With Good Reason (in connection with a Change in Control)
Cash Payments			
Cash Severance	—	\$ 1,694,000 (1)	\$ 2,068,200 (2)
Long-Term Incentives			
RSUs and Stock Options (Unvested and Accelerated)	—	\$ 34,823 (3)	\$ 52,546 (3)
Benefits and Perquisites			
Accrued Obligations	\$ 269,539 (4)	\$ 269,539 (4)	\$ 269,539 (4)
Benefits Continuation	—	\$ 39,308 (5)	\$ 39,308 (5)
Total Payments Upon Termination	<u>\$ 269,539</u>	<u>\$ 2,037,670</u>	<u>\$ 2,429,593</u>

- (1) Amount represents 24 months of his base salary in effect as of January 1, 2018 and an amount equal to one times his most recent annual bonus.
- (2) Amount represents 24 months of his base salary in effect as of January 1, 2018 and an amount equal to two times his most recent annual bonus.
- (3) Amount represents the value of unvested restricted stock units (RSUs) as of December 31, 2018, using the value of our common stock on December 31, 2018. As per the terms of Dr. Link's employment agreement, a portion of the unvested RSUs would accelerate and immediately vest under either a termination without just cause or resignation with good reason or a termination without just cause or resignation with good reason in connection with a change of control.
- (4) Amount represents \$269,539 in accrued vacation.
- (5) Amount represents 24 months of COBRA premiums.

<i>Nicholas N. Vahanian, M.D.</i>	Termination For Just Cause or Resignation Without Good Reason	Termination Without Just Cause or Resignation With Good Reason	Termination Without Just Cause or Resignation With Good Reason (in connection with a Change in Control)
Cash Payments			
Cash Severance	—	\$ 1,094,050 (1)	\$ 1,412,075 (2)
Long-Term Incentives			
RSUs and Stock Options (Unvested and Accelerated)	—	\$ 20,693 (3)	\$ 31,887 (3)
Benefits and Perquisites			
Accrued Obligations	\$ 140,271 (4)	\$ 140,271 (4)	\$ 140,271 (4)
Benefits Continuation	—	\$ 29,481 (5)	\$ 34,394 (6)
Total Payments Upon Termination	<u>\$ 140,271</u>	<u>\$ 1,284,495</u>	<u>\$ 1,618,627</u>

(1) Amount represents 18 months of his base salary in effect as of January 1, 2018 and an amount equal to one times his most recent annual bonus.

(2) Amount represents 21 months of his base salary in effect as of January 1, 2018 and an amount equal to 1.75 times his most recent annual bonus.

(3) Amount represents the value of unvested restricted stock units (RSUs) as of December 31, 2018, using the value of our common stock on December 31, 2017. As per the terms of Dr. Vahanian's employment agreement, a portion of the unvested RSUs would accelerate and immediately vest under either a termination without just cause or resignation with good reason or a termination without just cause or resignation with good reason in connection with a change of control.

(4) Amount represents \$140,271 in accrued vacation.

(5) Amount represents 18 months of COBRA premiums.

(6) Amount represents 21 months of COBRA premiums.

<i>Eugene P. Kennedy, M.D.</i>	Termination For Just Cause or Resignation Without Good Reason	Termination Without Just Cause or Resignation With Good Reason	Termination Without Just Cause or Resignation With Good Reason (in connection with a Change in Control)
Cash Payments			
Cash Severance	—	\$ 212,500 (1)	\$ 595,000 (2)
Long-Term Incentives			
RSUs and Stock Options (Unvested and Accelerated)	—	\$ 2,058 (3)	\$ 5,638 (3)
Benefits and Perquisites			
Accrued Obligations	\$ 37,596 (4)	\$ 37,596 (4)	\$ 37,596 (4)
Benefits Continuation	—	\$ 9,827 (5)	\$ 19,654 (6)
Total Payments Upon Termination	\$ 37,596	\$ 261,981	\$ 657,888

(1) Amount represents six months of his base salary then in effect.

(2) Amount represents 12 months of his base salary then in effect and an amount equal to 1 times his most recent annual bonus.

(3) Amount represents the value of unvested restricted stock units (RSUs) as of December 31, 2018, using the value of our common stock on December 31, 2018. As per the terms of Dr. Kennedy's employment agreement, a portion of the unvested RSUs would accelerate and immediately vest under either a termination without just cause or resignation with good reason or a termination without just cause or resignation with good reason in connection with a change of control.

(4) Amount represents \$37,596 in accrued vacation.

(5) Amount represents six months of COBRA premiums.

(6) Amount represents 12 months of COBRA premiums.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

We have not been a party since January 1, 2017 to any transactions, in which the amount involved in the transaction exceeds \$120,000 (which is less than 1% of the average of our total assets at the end of the last two completed fiscal years), and in which any of our directors, executive officers or to our knowledge, beneficial owners of more than 5% of our capital stock had or will have a direct or indirect material interest, other than compensation, termination and change in control arrangements, which are described in more detail in the section entitled "Executive Summary of Executive Compensation" beginning on page 43 of this proxy statement.

Policies and Procedures for Related Person Transactions

Our Board has adopted written policies and procedures for the review of any transaction, arrangement or relationship in which we are a participant, the amount involved exceeds \$120,000 and one of our executive officers, directors, director nominees or 5% stockholders (or their immediate family members), each of whom we refer to as a "related person," has a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a "related person transaction," the related person must report the proposed related person transaction to our Audit Committee. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by our Audit Committee. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, our Audit Committee will review, and, in its discretion, may ratify the related person transaction. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by our Audit Committee after full disclosure of the related person's interest in the transaction. As appropriate for the circumstances, our Audit Committee will review and consider:

- the related person's interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unaffiliated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

Our Audit Committee may approve or ratify the transaction only if the Audit Committee determines that, under all of the circumstances, the transaction is in, or is not inconsistent, with our best interests. Our Audit Committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the SEC's related person transaction disclosure rule, our Board has determined that the following transactions do not create a material direct or indirect interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- interests arising solely from the related person's position as an executive officer of another entity (whether or not the person is also a director of such entity), that is a participant in the transaction, where (a) the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, (b) the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction or (c) the amount involved in the transaction equals less than the greater of \$200,000 or 5% of the annual consolidated gross revenues of our receiving payment under the transaction; and
- a transaction that is specifically contemplated by provisions of our certificate of incorporation or bylaws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by our Compensation Committee in the manner specified in its charter.

Limitation of Liability and Indemnification

Our amended and restated bylaws require us to indemnify our directors to the fullest extent not prohibited by law and permit us to indemnify our officers, employees and other agents as set forth under Delaware law. We will indemnify any such person in connection with a proceeding initiated by such person only if such indemnification is expressly required by law, the proceeding was authorized by our Board, the indemnification is provided by us, in our sole discretion, pursuant to the Delaware General Corporation Law or other applicable law or is otherwise expressly required by our amended and restated bylaws. Section 145 of the Delaware General Corporation Law permits indemnification of officers, directors and other agents under specified circumstances and subject to specified limitations. Delaware law also permits a corporation not to hold its directors personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for:

- breach of their duty of loyalty to the corporation or its stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in this capacity. We have obtained directors' and officers' liability insurance to cover certain liabilities described above.

We have entered into indemnity agreements with each of our directors that require us to indemnify such persons against any and all expenses, including attorneys' fees, witness fees, judgments, fines, settlements and other amounts incurred, including expenses of a derivative action, in connection with any action, suit or proceeding or alternative dispute resolution mechanism, inquiry hearing or investigation, whether threatened, pending or completed, to which any such person may be made a party by reason of the fact that such person is or was one of our directors, officers or employees, provided that such person's conduct did not constitute a breach of his or her duty of loyalty to us or our stockholders, and was not an act or omission not in good faith or which involved intentional misconduct or a knowing violation of laws. The indemnity agreements also set forth procedures that will apply in the event of a claim for indemnification thereunder. We believe that these provisions and agreements are necessary to attract and retain qualified persons as our directors.

On or about May 12, 2016, Trevor Abramson filed a putative securities class action lawsuit in the United States District Court for the Southern District of New York, or the Court, captioned *Abramson v. NewLink Genetics Corp., et al.*, Case 1:16-cv-3545, or the Securities Action. Subsequently, the Court appointed Michael and Kelly Nguyen as lead plaintiffs and approved their selection of Kahn, Swick & Foti, LLC as lead counsel in the Securities Action. On October 31, 2016, the lead plaintiffs filed an amended complaint asserting claims under the federal securities laws against the Company, the Company's Chief Executive Officer Charles J. Link, Jr., and the Company's Chief Medical Officer and President Nicholas Vahanian, or collectively, the Defendants. The amended complaint alleges the Defendants made material false and/or misleading statements that caused losses to the Company's investors. The Defendants filed a motion to dismiss the amended complaint on July 14, 2017. On March 29, 2018, the Court dismissed the amended complaint for failure to state a claim, without prejudice, and gave the lead plaintiffs until May 4, 2018 to file any amended complaint attempting to remedy the defects in their claims. On May 4, 2018, the lead plaintiffs filed a second amended complaint asserting claims under the federal securities laws against the Defendants. Like the first amended complaint, the second amended complaint alleges that the Defendants made material false and/or misleading statements or omissions relating to the Phase 2 and 3 trials and efficacy of the product candidate algenpantucel-L that caused losses to the Company's investors. The lead plaintiffs do not quantify any alleged damages in the second amended complaint but, in addition to attorneys' fees and costs, they sought to recover damages on behalf of themselves and other persons who purchased or otherwise acquired the Company's stock during the putative class period of September 17, 2013 through May 9, 2016, inclusive, at allegedly inflated prices and purportedly suffered financial harm as a result. The Defendants filed a motion to dismiss the second amended complaint on July 31, 2018. On February 13, 2019, the Court dismissed the second amended complaint for failure to state a claim, with prejudice, and closed the case. On March 14, 2019, lead plaintiffs filed a notice of appeal. The appeal will likely be perfected in the next six to nine months. The Company intends to continue defending the Securities Action vigorously.

On or about April 26, 2017, Ronald Morrow filed a shareholder derivative lawsuit on behalf of the Company in the United States District Court for the Southern District of New York, or the Court, against the Company's Chief Executive Officer Charles J. Link, Jr., the Company's Chief Medical Officer and President Nicholas Vahanian, and Company directors Thomas A. Raffin, Joseph Saluri, Ernest J. Talarico, III, Paul R. Edick, Paolo Pucci, and Lota S. Zoth, or collectively, the Morrow Defendants, captioned *Morrow v. Link., et al.*, Case 1:17-cv-03039, or the Morrow Action. The complaint alleges that the Morrow Defendants caused the Company to issue false statements in its 2016 proxy statement regarding risk management and compensation matters in violation of federal securities law. The complaint also asserts state law claims against the Morrow Defendants for breaches of fiduciary duties, unjust enrichment, abuse of control, insider trading, gross mismanagement, and corporate waste, alleging that the Morrow Defendants made material misstatements or omissions related to the Phase 2 and 3 trials and efficacy of the product candidate algenpantucel-L, awarded themselves excessive compensation, engaged in illegal insider trading, and grossly mismanaged the Company. The plaintiff does not quantify any alleged damages in the complaint but seeks restitution for damages to the Company, attorneys' fees, costs, and expenses, as well as an order directing that proposals for strengthening board oversight be put to a vote of the Company's shareholders. The language for such proposals is not specified in the complaint. The plaintiff also contemporaneously filed a statement of relatedness, informing the Court that the Morrow Action is related to *Abramson v. NewLink Genetics Corp., et al.*, Case 1:16-cv-3545. On May 19, 2017, the plaintiff dismissed the Morrow Action without prejudice. Also on May 19, 2017, plaintiffs' counsel in the Morrow Action filed a new shareholder derivative complaint that is substantively

identical to the Morrow Action, except that the plaintiff is Rickey Ely. The latter action is captioned Ely v. Link, et al., Case 17-cv-3799, or the Ely Action. By agreement of the parties and order dated June 26, 2017, the Court temporarily stayed the Ely Action until the Securities Action is dismissed or otherwise finally resolved. Under the terms of the stay, the plaintiff in the Ely Action has until March 15, 2019 (30 days after dismissal of the Securities Action with prejudice) to file an amended derivative complaint or rest upon the current derivative complaint. By further agreement of the parties, dated March 15, 2019, the Ely Action will continue to be stayed pending the outcome of the appeal in the Securities Action. If the Securities Action continues to be dismissed in its entirety following its appeal, plaintiff in the Ely Action has agreed to withdraw or dismiss the action, with prejudice. The Company disputes the claims in the Ely Action and intends to defend against them vigorously.

At present, other than the previously mentioned matters, there is no pending litigation or proceeding involving any of our directors or officers for which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted by directors, executive officers or persons controlling us, we have been informed that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

OTHER INFORMATION

Stockholder Communications with Our Board of Directors

Our Board has adopted a formal process by which stockholders may communicate with our Board or any of its directors. This information is available on our website at www.newlinkgenetics.com in the "Investors & Media - Corporate Governance - Contact the Board" section.

Stockholder Proposals and Nominations of Directors

Stockholders who wish to submit a proposal for our 2020 Annual Meeting of Stockholders must submit any such proposal by December 7, 2019, to Corporate Secretary, NewLink Genetics Corporation, 2503 South Loop Drive, Ames, Iowa 50010. If you wish to submit a director nomination or a proposal at next year's annual meeting that is not to be included in next year's proxy materials, you must do so by no later than the close of business on February 8, 2020, nor earlier than the close of business on January 9, 2020, and you must comply with the requirements of Section 5(b) in the our Bylaws, including submitting written notice to our Corporate Secretary as set forth above.

The Company has not yet selected the date of the annual meeting of stockholders for next year, but is considering holding the meeting in May 2020. If the date of the 2020 annual meeting is advanced or delayed more than 30 days before or after the anniversary of the date of this Annual Meeting, notice by the stockholder to be timely must be so received not earlier than the close of business on the 120th day prior to such 2020 annual meeting and not later than the close of business on the later of the 90th day prior to such 2020 annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made. Submissions must include the full name of the proposed nominee, a description of the proposed nominee's business experience for at least the previous five years, complete biographical information, a description of the proposed nominee's qualifications as a director, a representation that the nominating stockholder is a beneficial or record holder of our common stock and such other information as is required under Section 5(b) of our Bylaws. Any such submission must be accompanied by the written consent of the proposed nominee to be named as a nominee and to serve as a director if elected.

Householding of Proxy Materials

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

This year, a number of brokers with account holders who are NewLink Genetics Corporation stockholders will be "householding" our proxy materials. A single set of Proxy Materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate set of Proxy Materials, please notify your broker or NewLink Genetics Corporation. Direct your written request to Corporate Secretary, NewLink Genetics Corporation, 2503 South Loop Drive, Ames, IA 50010 or contact our Corporate Secretary at (515) 598-2561. We undertake to promptly deliver, upon written or oral request, a separate set of our Proxy Materials to stockholders at a shared address to which a single copy of such documents was delivered. Stockholders who currently receive multiple sets of Proxy Materials at their addresses and would like to request "householding" of their communications should contact their brokers.

OTHER MATTERS

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

By Order of the Board of Directors

/s/ Carl W. Langren

Carl W. Langren
Chief Financial Officer

A copy of our Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 2018 is available without charge upon written request to: Corporate Secretary, NewLink Genetics Corporation, 2503 South Loop Drive, Suite 5100, Ames, IA 50010.

NEWLINK GENETICS CORPORATION

2009 EQUITY INCENTIVE PLAN

ADOPTED BY THE BOARD OF DIRECTORS: MAY 13, 2009

APPROVED BY THE STOCKHOLDERS: JULY 15, 2009

AMENDED BY THE BOARD: DECEMBER 4, 2009 AND MARCH 3, 2010

APPROVED BY THE STOCKHOLDERS: MAY 15, 2010

AMENDED BY THE BOARD: OCTOBER 29, 2010

APPROVED BY THE STOCKHOLDERS: JANUARY 7, 2011

AMENDED BY THE BOARD OF DIRECTORS: MARCH 22, 2019

APPROVED BY THE STOCKHOLDERS: MAY [], 2019

1. GENERAL.

(a) **Successor to and Continuation of Prior Plan.** The Plan is intended as the successor to and continuation of the NewLink Genetics Corporation 2000 Equity Incentive Plan (the “*Prior Plan*”). Following the Effective Date, no additional stock awards shall be granted under the Prior Plan. Any shares remaining available for issuance pursuant to the exercise of options or issuance or settlement of stock awards under the Prior Plan as of the Effective Date (the “*Prior Plan’s Available Reserve*”) shall become available for issuance pursuant to Stock Awards granted hereunder. From and after the Effective Date, all outstanding stock awards granted under the Prior Plan shall remain subject to the terms of the Prior Plan; *provided, however*, any shares subject to outstanding stock awards granted under the Prior Plan that expire or terminate for any reason prior to exercise or settlement or are forfeited because of the failure to meet a contingency or condition required to vest such shares, which shares would otherwise return to the Prior Plan (the “*Returning Shares*”) shall become available for issuance pursuant to Awards granted hereunder. All Awards granted on or after the Effective Date of this Plan shall be subject to the terms of this Plan; *provided that* Awards granted pursuant to the terms of the Plan prior to its amendment in March 2019 shall continue to be governed by the terms of the Plan prior to such amendment.

(b) **Eligible Award Recipients.** The persons eligible to receive Awards are Employees, Directors and Consultants.

(c) **Available Awards.** The Plan provides for the grant of the following Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Stock Appreciation Rights (iv) Restricted Stock Awards, (v) Restricted Stock Unit Awards, (vi) Performance Stock Awards, and (vii) Other Stock Awards.

(d) **Purpose.** The Company, by means of the Plan, seeks to secure and retain the services of the group of persons eligible to receive Awards as set forth in Section 1(b), to provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate and to provide a means by which such eligible recipients may be given an opportunity to benefit from increases in value of the Common Stock through the granting of Awards.

2. ADMINISTRATION.

(a) **Administration by Board.** The Board shall administer the Plan unless and until the Board delegates administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) **Powers of Board.** The Board shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine from time to time (A) which of the persons eligible under the Plan shall be granted Awards; (B) when and how each Award shall be granted; (C) what type or combination of types of Award shall be granted; (D) the provisions of each Award granted (which need not be identical), including the time or times when a person shall be permitted to receive cash or Common Stock pursuant to a Stock Award; (E) the number of shares of Common Stock with respect to which a Stock Award shall be granted to each such person; and (F) the Fair Market Value applicable to a Stock Award.

(ii) To construe and interpret the Plan and Awards granted under it, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it shall deem necessary or expedient to make the Plan or Award fully effective.

(iii) To settle all controversies regarding the Plan and Awards granted under it.

(iv) To accelerate the time at which an Award may first be exercised or the time during which an Award or any part thereof will vest in accordance with the Plan, notwithstanding the provisions in the Award stating the time at which it may first be exercised or the time during which it will vest.

(v) To suspend or terminate the Plan at any time. Suspension or termination of the Plan shall not impair rights and obligations under any Award granted while the Plan is in effect except with the written consent of the affected Participant.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or to bring the Plan or Awards granted under the Plan into compliance therewith, subject to the limitations, if any of applicable law. However, except as provided in Section 10(a) relating to Capitalization Adjustments, to the extent required by applicable law or listing requirements, stockholder approval shall be required for any amendment of the Plan that either (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan or materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (D) materially extends the term of the Plan, or (E) expands the types of Awards available for issuance under the Plan. Except as provided above, rights under any Award granted before amendment of the Plan shall not be impaired by any amendment of the Plan unless (1) the Company requests the consent of the affected Participant, and (2) such Participant consents in writing.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of (A) Section 422 of the Code regarding "incentive stock options" or (B) Rule 16b-3.

(viii) To approve forms of Award Agreements for use under the Plan and to amend the terms of any one or more Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided however*, that except with respect to amendments that disqualify or impair the status of an Incentive Stock Option, a Participant's rights under any Award shall not be impaired by any such amendment unless (A) the Company requests the consent of the affected Participant, and (B) such Participant consents in writing. Notwithstanding the foregoing, subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Awards without the affected Participant's consent if necessary to maintain the qualified status of the Award as an Incentive Stock Option or to bring the Award into compliance with Section 409A of the Code.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States.

(c) **Delegation to Committee.**

(i) **General.** The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee shall have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board shall thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. The Committee may, at any time, abolish the subcommittee and/or revert in the Committee any powers delegated to the subcommittee. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revert in the Board some or all of the powers previously delegated.

(ii) **Rule 16b-3 Compliance.** The Committee may consist solely of two or more Non-Employee Directors, in accordance with Rule 16b-3.

(d) **Delegation to an Officer.** The Board may delegate to one (1) or more Officers the authority to do one or both of the following (i) designate Employees who are providing Continuous Service to the Company or any of its Subsidiaries who are not Officers to be recipients of Options and Stock Appreciation Rights (and, to the extent permitted by applicable law, other Stock Awards) and the terms thereof, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Employees; *provided, however*, that the Board resolutions regarding such delegation shall specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Notwithstanding the foregoing, the Board may not delegate authority to an Officer to determine the Fair Market Value pursuant to Section 13(v)(iii) below.

(e) **Effect of Board's Decision.** All determinations, interpretations and constructions made by the Board in good faith shall not be subject to review by any person and shall be final, binding and conclusive on all persons.

(f) **Repricing; Cancellation and Re-Grant of Stock Awards.** Neither the Board nor any Committee will have the authority to (i) reduce the exercise, purchase or strike price of any outstanding Option or SAR under the Plan, or (ii) cancel any outstanding Option or SAR that has an exercise price or strike price greater than the then-current Fair Market Value of the Common Stock in exchange for cash or other Stock Awards under the Plan, unless the stockholders of the Company have approved such an action within 12 months prior to such an event.

(g) **Dividends and Dividend Equivalents.** Dividends or dividend equivalents may be paid or credited, as applicable, with respect to any shares of Common Stock subject to a Stock Award (other than an Option or SAR), as determined by the Board and contained in the applicable Stock 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 under the terms of such Stock Award Agreement, (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 such Stock Award Agreement (including, but not limited to, any vesting conditions), and (iii) any dividends or dividend equivalents that are credited with respect to any such shares will be forfeited to the Company on the date, if any, such shares are forfeited to or repurchased by the Company due to a failure to meet any vesting conditions under the terms of such Stock Award Agreement.

3. SHARES SUBJECT TO THE PLAN.

(a) **Share Reserve.** Subject to Section 10(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards from and after the Effective Date shall not exceed 12,400,653 shares (the "**Share Reserve**"), which number is the sum of (i) 1,309,523 shares approved by the stockholders on July 15, 2009, (ii) 1,238,095 shares approved by the stockholders on May 15, 2010, (iii) 714,285 shares approved by the stockholders on January 7, 2011, and (iv) an aggregate of 9,138,750 shares automatically added to the share reserve on January 1 of each year during the period beginning January 1, 2012 through and including January 1, 2019, plus the Returning Shares, if any, as such shares become available from time to time. In addition, the number of shares of Common Stock available for issuance under the Plan shall automatically increase on January 1st of each year commencing on January 1, 2020 and ending on (and including) January 1, 2029, in an amount equal to three percent (3%) of the total number of shares of Common Stock outstanding on December 31st of the preceding calendar year. Notwithstanding the foregoing, the Board may act prior to the first day of any calendar year, to provide that there shall be no increase in the share reserve for such calendar year or that the increase in the share reserve for such calendar year shall be a lesser number of shares of Common Stock than would otherwise occur pursuant to the preceding sentence. For clarity, the Share Reserve in this Section 3(a) is a limitation on the number of shares of Common Stock that may be issued pursuant to the Plan and does not limit the granting of Stock Awards except as provided in Section 8(a). Shares may be issued in connection with a merger or acquisition as permitted by, as applicable, NASDAQ Listing Rule 5635(c) or, if applicable, NYSE Listed Company Manual Section 303A.08, AMEX Company Guide Section 711 or other applicable rule, and such issuance shall not reduce the number of shares available for issuance under the Plan. Furthermore, if a Stock Award or any portion thereof (i) expires or otherwise terminates without all of the shares covered by such Stock Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement shall not reduce (or otherwise offset) the number of shares of Common Stock that may be available for issuance under the Plan.

(b) **Reversion of Shares to the Share Reserve.**

(i) **Shares Available For Subsequent Issuance.** If (A) any shares of Common Stock subject to a Stock Award are not issued because such Stock Award or any portion thereof expires or otherwise terminates without all of the shares covered by such Stock Award having been issued or is settled in cash (*i.e.*, the Participant receives cash rather than stock), (B) any shares of Common Stock issued pursuant to a Stock Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required for the vesting of such shares, or (C) with respect to a Full Value Award, any shares of Common Stock are reacquired or withheld (or not issued) by the Company to satisfy a tax withholding obligation in connection with such Full Value Award, such shares will again become available for issuance under the Plan (collectively, the “*2009 Plan Returning Shares*”).

(ii) **Shares Not Available For Subsequent Issuance.** Any shares of Common Stock reacquired or withheld (or not issued) by the Company to satisfy the exercise or purchase price of a Stock Award will no longer be available for issuance under the Plan, including any shares subject to a Stock Award that are not delivered to a Participant because such Stock Award is exercised through a reduction of shares subject to such Stock Award (*i.e.*, “net exercised”). In addition, any shares reacquired or withheld (or not issued) by the Company to satisfy a tax withholding obligation in connection with an Option or Stock Appreciation Right, or any shares repurchased by the Company on the open market with the proceeds of the exercise or strike price of an Option or Stock Appreciation Right will no longer be available for issuance under the Plan.

(c) **Incentive Stock Option Limit.** Notwithstanding anything to the contrary in this Section 3 and, subject to the provisions of Section 10(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options shall be fifty million (50,000,000) shares of Common Stock.

(d) **Source of Shares.** The stock issuable under the Plan shall be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

4. **ELIGIBILITY.**

(a) **Eligibility for Specific Stock Awards.** Incentive Stock Options may be granted only to employees of the Company or a “parent corporation” or “subsidiary corporation” thereof (as such terms are defined in Sections 424(e) and (f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided, however*, Nonstatutory Stock Options and SARs may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any “parent” of the Company, as such term is defined in Rule 405 promulgated under the Securities Act, unless the stock underlying such Stock Awards is treated as “service recipient stock” under Section 409A of the Code because the Stock Awards are granted pursuant to a corporate transaction (such as a spin off transaction) or unless such Stock Awards comply with the distribution requirements of Section 409A of the Code.

(b) **Ten Percent Stockholders.** A Ten Percent Stockholder shall not be granted an Incentive Stock Option unless the exercise price of such Option is at least one hundred ten percent (110%) of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five (5) years from the date of grant.

5. NON-DISCRETIONARY GRANTS TO NON-EMPLOYEE DIRECTORS

(a) **Initial Grants.** Without any further action of the Board, each person who is elected or appointed for the first time to be a Non-Employee Director automatically shall, upon the date of his or her initial election or appointment to be a Non-Employee Director by the Board or stockholders of the Company, be granted an Initial Grant as an Option to purchase a number of shares equal to the lesser of (i) \$250,000 divided by the per share grant date fair value that will be used for reporting the compensation under applicable accounting guidance, and (ii) 125,000 shares (subject to Section 10(a) relating to Capitalization Adjustments). Thirty-three percent (33%) of the shares shall vest on the first anniversary of the date of such Initial Grant recipient's election as a Non-Employee Director and the remaining sixty-seven percent (67%) of the shares shall vest in a series of twenty-four (24) successive equal monthly installments over the two (2)-year period following the first anniversary of the date of election, subject to Participant's Continuous Service as of each such date.

(b) **Annual Grants.** Without any further action of the Board, a Non-Employee Director shall be granted an Annual Grant as follows: On the day following each Annual Meeting commencing with the Annual Meeting in 2018, each person who is then a Non-Employee Director automatically shall be granted an Annual Grant as an Option to purchase a number of shares equal to the lesser of (i) \$150,000 divided by the per share grant date fair value that will be used for reporting the compensation under applicable accounting guidance, and (ii) 50,000 shares (subject to Section 10(a) relating to Capitalization Adjustments). One hundred percent (100%) of the shares shall vest on the earlier of (i) the first anniversary of the date of grant and (ii) the date of the first Annual Meeting following the date of grant, in each case subject to Participant's Continuous Service as of such date.

6. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option or SAR shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. All Options shall be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates shall be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, then the Option shall be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided, however*, that each Option Agreement or Stock Appreciation Right Agreement shall conform to (through incorporation of provisions hereof by reference in the applicable Award Agreement or otherwise) the substance of each of the following provisions:

(a) **Term.** Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR shall be exercisable after the expiration of ten (10) years from the date of its grant or such shorter period specified in the Award Agreement.

(b) **Exercise Price.** Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, the exercise price (or strike price) of each Option or SAR shall be not less than one hundred percent (100%) of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Option or SAR is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise price (or strike price) lower than one hundred percent (100%) of the Fair Market Value of the Common Stock subject to the Option or SAR if such Option or SAR is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Sections 409A and, if applicable, 424(a) of the Code. Each SAR will be denominated in shares of Common Stock equivalents.

(c) **Purchase Price for Options.** The purchase price of Common Stock acquired pursuant to the exercise of an Option shall be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board shall have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to utilize a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) if the option is a Nonstatutory Stock Option, by a “net exercise” arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company shall accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued; *provided, further*, that shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are reduced to pay the exercise price pursuant to the “net exercise,” (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations; or

(v) in any other form of legal consideration that may be acceptable to the Board.

(d) **Exercise and Payment of a SAR.** To exercise any outstanding Stock Appreciation Right, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right. The appreciation distribution payable on the exercise of a Stock Appreciation Right will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the Stock Appreciation Right) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such Stock Appreciation Right, and with respect to which the Participant is exercising the Stock Appreciation Right on such date, over (B) the strike price that will be determined by the Board at the time of grant of the Stock Appreciation Right. The appreciation distribution in respect to a Stock Appreciation Right may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right.

(e) **Transferability of Options and SARs.** The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board shall determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options and SARs shall apply:

(i) **Restrictions on Transfer.** An Option or SAR shall not be transferable except by will or by the laws of descent and distribution and shall be exercisable during the lifetime of the Participant only by the Participant; *provided, however*, that the Board may, in its sole discretion, permit transfer of the Option or SAR in a manner that is not prohibited by applicable tax and securities laws upon the Participant's request. Except as explicitly provided herein, neither an Option nor a SAR may be transferred for consideration.

(ii) **Domestic Relations Orders.** Notwithstanding the foregoing, an Option or SAR may be transferred pursuant to a domestic relations order; *provided, however*, that if an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(iii) **Beneficiary Designation.** Notwithstanding the foregoing, the Participant may, by delivering written notice to the Company, in a form provided by or otherwise satisfactory to the Company and any broker designated by the Company to effect Option exercises, designate a third party who, in the event of the death of the Participant, shall thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, the executor or administrator of the Participant's estate shall be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise.

(f) **Vesting Generally.** The total number of shares of Common Stock subject to an Option or SAR may vest and therefore become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of Performance Goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary.

(g) **Termination of Continuous Service.** Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates (other than for Cause or upon the Participant's death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Award as of the date of termination of Continuous Service) but only within such period of time ending on the earlier of (i) the date three (3) months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the applicable Award Agreement), or (ii) the expiration of the term of the Option or SAR as set forth in the Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the time specified herein or in the Award Agreement (as applicable), the Option or SAR shall terminate.

(h) **Extension of Termination Date.** If the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause or upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR shall terminate on the earlier of (i) the expiration of a total period of three (3) months (that need not be consecutive) after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement. In addition, unless otherwise provided in a Participant's Award Agreement, if the sale of any Common Stock received upon exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR shall terminate on the earlier of (i) the expiration of a period equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option or SAR would not

be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement.

(i) **Disability of Participant.** Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date twelve (12) months following such termination of Continuous Service (or such longer or shorter period specified in the Award Agreement), or (ii) the expiration of the term of the Option or SAR as set forth in the Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the time specified herein or in the Award Agreement (as applicable), the Option or SAR (as applicable) shall terminate.

(j) **Death of Participant.** Except as otherwise provided in the applicable Award Agreement or other agreement between the Participant and the Company, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Award Agreement for exercisability after the termination of the Participant's Continuous Service (for a reason other than death), then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date eighteen (18) months following the date of death (or such longer or shorter period specified in the Award Agreement), or (ii) the expiration of the term of such Option or SAR as set forth in the Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the time specified herein or in the Award Agreement (as applicable), the Option or SAR shall terminate.

(k) **Termination for Cause.** Except as explicitly provided otherwise in a Participant's Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a Participant's Continuous Service is terminated for Cause, the Option or SAR shall terminate immediately upon such Participant's termination of Continuous Service, and the Participant shall be prohibited from exercising his or her Option or SAR from and after the time of such termination of Continuous Service.

(l) **Non-Exempt Employees.** No Option or SAR, whether or not vested, granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, shall be first exercisable for any shares of Common Stock until at least six (6) months following the date of grant of the Option or SAR. Notwithstanding the foregoing, consistent with the provisions of the Worker Economic Opportunity Act, (i) in the event of the Participant's death or Disability, (ii) upon a Corporate Transaction in which such Option or SAR is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Participant's retirement (as such term may be defined in the Participant's Award Agreement or in another applicable agreement or in accordance with the Company's then current employment policies and guidelines), any such vested Options and SARs may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay.

7. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS AND SARs.

(a) **Restricted Stock Awards.** Each Restricted Stock Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. To the extent consistent

with the Company's Bylaws, at the Board's election, shares of Common Stock may be (i) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (ii) evidenced by a certificate, which certificate shall be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical; *provided, however*, that each Restricted Stock Award Agreement shall conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) **Consideration.** A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration (including future services) that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) **Vesting.** Shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) **Termination of Participant's Continuous Service.** If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) **Transferability.** Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement shall be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board shall determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.

(v) **Dividends.** A Restricted Stock Award Agreement may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.

(b) **Restricted Stock Unit Awards.** Each Restricted Stock Unit Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical; *provided, however*, that each Restricted Stock Unit Award Agreement shall conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) **Consideration.** At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) **Vesting.** At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(iii) **Payment.** A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) **Additional Restrictions.** At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) **Dividend Equivalents.** Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

(vi) **Termination of Participant's Continuous Service.** Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(c) **Performance Stock Awards.**

(i) **Performance Stock Awards.** A Performance Stock Award is a Stock Award that may vest or may be exercised contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Stock Award may, but need not, 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 shall be conclusively determined by the Committee, in its sole discretion. The Board may provide for or, subject to such terms and conditions as the Board may specify, may permit a Participant to elect for, the payment of any Performance Stock Award to be deferred to a specified date or event. In addition, to the extent permitted by applicable law and the applicable Award Agreement, the Board may determine that cash may be used in payment of Performance Stock Awards.

(ii) **Board Discretion.** The Board retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for a Performance Period.

(d) **Other Stock Awards.** Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., options or stock rights with an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards provided for under Section 5, Section 6 and the preceding provisions of this Section 7. Subject to the provisions of the Plan, the Board shall 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 Common Stock (or the cash equivalent thereof)

to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

8. COVENANTS OF THE COMPANY.

(a) **Availability of Shares.** During the terms of the Stock Awards, the Company shall keep available at all times the number of shares of Common Stock reasonably required to satisfy such Stock Awards.

(b) **Securities Law Compliance.** The Company shall seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however*, that this undertaking shall not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company shall be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant shall not be eligible for the grant of a Stock Award or the subsequent issuance of Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

(c) **No Obligation to Notify or Minimize Taxes.** The Company shall have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company shall have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

9. MISCELLANEOUS.

(a) **Use of Proceeds from Sales of Common Stock.** Proceeds from the sale of shares of Common Stock pursuant to Stock Awards shall constitute general funds of the Company.

(b) **Corporate Action Constituting Grant of Stock Awards.** Corporate action constituting a grant by the Company of a Stock Award to any Participant shall be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Stock Award is communicated to, or actually received or accepted by, the Participant.

(c) **Stockholder Rights.** No Participant shall be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to such Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of the Stock Award pursuant to its terms, if applicable, and (ii) the issuance of the Common Stock subject to such Stock Award has been entered into the books and records of the Company.

(d) **No Employment or Other Service Rights.** Nothing in the Plan, any Stock Award Agreement or any other instrument executed thereunder or in connection with any Award granted pursuant thereto shall confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or shall affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service

of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the Bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) **Incentive Stock Option \$100,000 Limitation.** To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds one hundred thousand dollars (\$100,000), the Options or portions thereof that exceed such limit (according to the order in which they were granted) shall be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(f) **Investment Assurances.** The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, shall be inoperative if (A) the issuance of the shares upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (B) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(g) **Withholding Obligations.** Unless prohibited by the terms of a Stock Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to an Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Award; *provided, however*, that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such lesser amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from an Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant; or (v) by such other method as may be set forth in the Award Agreement.

(h) **Electronic Delivery.** Any reference herein to a "written" agreement or document shall include any agreement or document delivered electronically, filed publicly at www.sec.gov (or any successor website thereto) or posted on the Company's intranet.

(i) **Deferrals.** To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while

a Participant is still an employee or otherwise providing services to the Company. The Board is authorized to make deferrals of Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(j) **Compliance with Section 409A.** To the extent that the Board determines that any Award granted hereunder is subject to Section 409A of the Code, the Award Agreement evidencing such Award shall incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code. To the extent applicable, the Plan and Award Agreements shall be interpreted in accordance with Section 409A of the Code. Notwithstanding anything to the contrary in this Plan (and unless the Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded and a Participant holding an Award that constitutes "deferred compensation" under Section 409A of the Code is a "specified employee" for purposes of Section 409A of the Code, no distribution or payment of any amount shall be made upon a "separation from service" before a date that is six (6) months following the date of such Participant's "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code.

(k) **Clawback/Recovery.** All Stock Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's 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 Board may impose such other clawback, recovery or recoupment provisions in a Stock Award Agreement as the Board determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of Cause. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company or an Affiliate.

10. **ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.**

(a) **Capitalization Adjustments.** In the event of a Capitalization Adjustment, the Board shall appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), (iii) the class(es) and maximum number of securities to be granted as an Initial Grant or as an Annual Grant pursuant to Section 5(a) and 5(b), respectively, and (iv) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board shall make such adjustments, and its determination shall be final, binding and conclusive.

(b) **Dissolution or Liquidation.** Except as otherwise provided in the Stock Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) shall terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service, *provided, however*, that the Board may, in its

sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) **Corporate Transaction.** The following provisions shall apply to Stock Awards in the event of a Corporate Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of a Stock Award.

(i) **Stock Awards May Be Assumed.** In the event of a Corporate Transaction, any surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) may assume or continue any or all Stock Awards outstanding under the Plan or may substitute similar stock awards for Stock Awards outstanding under the Plan (including but not limited to, awards to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction), and any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to Stock Awards may be assigned by the Company to the successor of the Company (or the successor's parent company, if any), in connection with such Corporate Transaction. A surviving corporation or acquiring corporation (or its parent) may choose to assume or continue only a portion of a Stock Award or substitute a similar stock award for only a portion of a Stock Award, or may choose to assume or continue the Stock Awards held by some, but not all Participants. The terms of any assumption, continuation or substitution shall be set by the Board.

(ii) **Stock Awards Held by Current Participants.** In the event of a Corporate Transaction in which the surviving corporation or acquiring corporation (or its parent company) does not assume or continue such outstanding Stock Awards or substitute similar stock awards for such outstanding Stock Awards, then with respect to Stock 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 Corporate Transaction (referred to as the "**Current Participants**"), the vesting of any such time-based Stock Awards (and, with respect to Options and Stock Appreciation Rights, the time when such Stock Awards may be exercised) shall be accelerated in full (and with respect to performance-based Stock Awards, vesting shall be deemed to be satisfied at the target level) to a date prior to the effective time of such Corporate Transaction (contingent upon the effectiveness of the Corporate Transaction) as the Board shall determine (or, if the Board shall not determine such a date, to the date that is five (5) days prior to the effective time of the Corporate Transaction), and such Stock Awards shall terminate if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction, and any reacquisition or repurchase rights held by the Company with respect to such Stock Awards shall lapse (contingent upon the effectiveness of the Corporate Transaction).

(iii) **Stock Awards Held by Persons other than Current Participants.** In the event of a Corporate Transaction in which the surviving corporation or acquiring corporation (or its parent company) does not assume or continue such outstanding Stock Awards or substitute similar stock awards for such outstanding Stock Awards, then with respect to Stock Awards that have not been assumed, continued or substituted and that are held by persons other than Current Participants, such Stock Awards shall terminate if not exercised (if applicable) prior to the effective time of the Corporate Transaction; *provided, however,* that any reacquisition or repurchase rights held by the Company with respect to such Stock Awards shall not terminate and may continue to be exercised notwithstanding the Corporate Transaction.

(iv) **Payment for Stock Awards in Lieu of Exercise.** Notwithstanding the foregoing, in the event a Stock Award will terminate if not exercised prior to the effective time of a Corporate Transaction,

the Board may provide, in its sole discretion, that the holder of such Stock Award may not exercise such Stock Award but will receive a payment, in such form as may be determined by the Board, equal in value, at the effective time, to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of the Stock Award (including, at the discretion of the Board, any unvested portion of such Stock Award), over (B) any exercise price payable by such holder in connection with such exercise.

(d) **Change in Control.** A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration shall occur.

11. TERMINATION OR SUSPENSION OF THE PLAN.

(a) **Plan Term.** The Board may suspend or terminate the Plan at any time. No Incentive Stock Option will be granted after the tenth anniversary of the earlier of (i) the date the Plan is most recently adopted by the Board, or (ii) the date the Plan is most recently approved by the stockholders of the Company. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

(b) **No Impairment of Rights.** Suspension or termination of the Plan shall not impair rights and obligations under any Award granted while the Plan is in effect except with the written consent of the affected Participant.

12. EFFECTIVE DATE OF THE PLAN.

This Plan shall become effective on the Effective Date.

13. **CHOICE OF LAW.** The laws of the State of Iowa shall govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

14. **DEFINITIONS.** As used in the Plan, the following definitions shall apply to the capitalized terms indicated below:

(a) **"Affiliate"** means, at the time of determination, any "parent" or "subsidiary" of the Company as such terms are defined in Rule 405 of the Securities Act. The Board shall have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(b) **"Award"** means a Stock Award.

(c) **"Award Agreement"** means a written agreement between the Company and a Participant evidencing the terms and conditions of an Award.

(d) **"Board"** means the Board of Directors of the Company.

(e) **"Capitalization Adjustment"** means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Effective Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, liquidating dividend, combination of shares, exchange of shares, change in

corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards No. 123 (revised). Notwithstanding the foregoing, the conversion of any convertible securities of the Company shall not be treated as a Capitalization Adjustment.

(f) “**Cause**” shall have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term shall mean, with respect to a Participant, the occurrence of any of the following events that has a material negative impact on the business or reputation of the Company: (i) such Participant’s attempted commission of, or participation in, a fraud or act of dishonesty against the Company; (ii) such Participant’s intentional, material violation of any contract or agreement between the Participant and the Company or of any statutory duty owed to the Company; (iii) such Participant’s unauthorized use or disclosure of the Company’s confidential information or trade secrets; or (iv) such Participant’s gross misconduct. The determination that a termination of the Participant’s Continuous Service is either for Cause or without Cause shall be made by the Company, in its sole discretion. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant shall have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(g) “**Change in Control**” means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company’s then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company’s securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities, or (C) solely because the level of Ownership held by any Exchange Act Person (the “*Subject Person*”) exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company shall otherwise occur, except for a liquidation into a parent corporation;

(iv) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or

(v) individuals who, on the date the Plan is adopted by the Board, are members of the Board (the “**Incumbent Board**”) cease for any reason to constitute at least a majority of the members of the Board; *provided, however*, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member shall, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing or any other provision of this Plan, (A) the term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant shall supersede the foregoing definition with respect to Awards subject to such agreement; *provided, however*, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply.

(h) “**Code**” means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(i) “**Committee**” means a committee of one (1) or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(j) “**Common Stock**” means the common stock of the Company.

(k) “**Company**” means NewLink Genetics Corporation, a Delaware corporation.

(l) “**Consultant**” means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, shall not cause a Director to be considered a “Consultant” for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company’s securities to such person.

(m) “**Continuous Service**” means that the Participant’s service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity

in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, shall not terminate a Participant's Continuous Service; *provided, however*, if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, in its sole discretion, such Participant's Continuous Service shall be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous Service shall be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence shall be treated as Continuous Service for purposes of vesting in an Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(n) "**Corporate Transaction**" means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board, in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least ninety percent (90%) of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(o) "**Director**" means a member of the Board.

(p) "**Disability**" means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than twelve (12) months, as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and shall be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(q) "**Effective Date**" means the effective date of this Plan, which is the earlier of (i) the date that this Plan is first approved by the Company's stockholders, or (ii) the date this Plan is adopted by the Board.

(r) "**Employee**" means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, shall not cause a Director to be considered an "Employee" for purposes of the Plan.

(s) "**Entity**" means a corporation, partnership, limited liability company or other entity.

(t) “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(u) “**Exchange Act Person**” means any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that “Exchange Act Person” shall not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company’s then outstanding securities.

(v) “**Fair Market Value**” means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock shall be the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in a source the Board deems reliable.

(ii) Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, the Fair Market Value shall be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.

(w) “**Full Value Award**” means a Stock Award that is not an Option or SAR with respect to which the exercise or strike price is at least 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date of grant.

(x) “**Incentive Stock Option**” means an option granted pursuant to Section 6 of the Plan that is intended to be, and qualifies as, an “incentive stock option” within the meaning of Section 422 of the Code.

(y) “**Non-Employee Director**” means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act (“**Regulation S-K**”)), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a “non-employee director” for purposes of Rule 16b-3.

(z) “**Nonstatutory Stock Option**” means any option granted pursuant to Section 6 of the Plan that does not qualify as an Incentive Stock Option.

- (aa) **“Officer”** means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.
- (ab) **“Option”** means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.
- (ac) **“Option Agreement”** means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement shall be subject to the terms and conditions of the Plan.
- (ad) **“Optionholder”** means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.
- (ae) **“Other Stock Award”** means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 7(d).
- (af) **“Other Stock Award Agreement”** means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement shall be subject to the terms and conditions of the Plan.
- (ag) **“Own,” “Owned,” “Owner,” “Ownership”** A person or Entity shall be deemed to “Own,” to have “Owned,” to be the “Owner” of, or to have acquired “Ownership” of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.
- (ah) **“Participant”** means a person to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.
- (ai) **“Performance Criteria”** means the one or more criteria that the Board shall select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that shall be used to establish such Performance Goals may be based on any one of, or combination of, the following as determined by the Board: (i) earnings (including earnings per share and net earnings); (ii) earnings before interest, taxes and depreciation; (iii) earnings before interest, taxes, depreciation and amortization; (iv) total stockholder return; (v) return on equity or average stockholder’s equity; (vi) return on assets, investment, or capital employed; (vii) stock price; (viii) margin (including gross margin); (ix) 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) commencement of, progress in, or completion of clinical trials or other development projects; (xxv) receipt of government contracts, grants or awards; (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) completion of financing transactions; (xxxiii) completion of, progress under, or receipt of upfront, milestone, royalty or other payments under, licensing or strategic transactions; and (xxxiv) other measures of performance selected by the Board.
- (aj) **“Performance Goals”** means, for a Performance Period, the one or more goals established by the Board for the Performance Period based upon the Performance Criteria. Performance Goals may be

based on a Company-wide basis, with respect to one or more business units, divisions, Affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Board (i) in the Award Agreement at the time the Award is granted or (ii) in such other document setting forth the Performance Goals at the time the Performance Goals are established, the Board shall appropriately make adjustments in the method of calculating the attainment of Performance Goals for a Performance Period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated Performance Goals; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; and (5) to exclude the effects of any “extraordinary items” as determined under generally accepted accounting principles.

(ak) **“Performance Period”** means the period of time selected by the Board over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant’s right to and the payment of a Stock Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Board.

(al) **“Performance Stock Award”** means a Stock Award granted under the terms and conditions of Section 7(c)(i).

(am) **“Plan”** means this NewLink Genetics Corporation 2009 Equity Incentive Plan.

(an) **“Restricted Stock Award”** means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 7(a).

(ao) **“Restricted Stock Award Agreement”** means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(ap) **“Restricted Stock Unit Award”** means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 7(b).

(aq) **“Restricted Stock Unit Award Agreement”** means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement shall be subject to the terms and conditions of the Plan.

(ar) **“Rule 16b-3”** means Rule 16b-3 promulgated under the Exchange Act or any successor to Rule 16b-3, as in effect from time to time.

(as) **“Securities Act”** means the Securities Act of 1933, as amended.

(at) **“Stock Appreciation Right”** or **“SAR”** means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 6.

(au) **“Stock Appreciation Right Agreement”** means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement shall be subject to the terms and conditions of the Plan.

(av) “**Stock Award**” means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right, a Performance Stock Award or any Other Stock Award.

(aw) “**Stock Award Agreement**” means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(ax) “**Subsidiary**” means, with respect to the Company, (i) any corporation of which more than fifty percent (50%) of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than fifty percent (50%).

(ay) “**Ten Percent Stockholder**” means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Affiliate.



▼ IF VOTING BY MAIL, SIGN, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

NewLink Genetics Corporation



Notice of 2019 Annual Meeting of **Stockholders**

Proxy Solicited by Board of Directors for Annual Meeting – May 9, 2019

Carl W. Langren, Bradley J. Powers and Ryan D. Trytten, or any of them, each with the power of substitution, are hereby authorized to represent and vote the shares of the undersigned, with all the powers which the undersigned would possess if personally present, at the Annual Meeting of **Stockholders** of NewLink Genetics Corporation to be held on May 9, 2019 or at any postponement or adjournment thereof.

Shares represented by this proxy will be voted by the **stockholder**. If no such directions are indicated, the persons named above will vote the shares represented by this proxy **FOR** both nominees and **FOR** items 2-6.

In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the meeting.

(Items to be voted appear on reverse side)

C Non-Voting Items

Change of Address – Please print new address below.

Comments – Please print your comments below.

