

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

SCHEDULE 14A

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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

Gemphire Therapeutics Inc.

(Name of Registrant as Specified In Its Charter)

N/A

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
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 - (1) Title of each class of securities to which transaction applies:

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 - (3) Filing Party:

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April 17, 2018

Dear Stockholder:

You are cordially invited to attend the 2018 Annual Meeting of Stockholders of Gemphire Therapeutics Inc. to be held at 315 East Eisenhower Parkway, Suite 100, Ann Arbor, Michigan 48108 on Tuesday, May 22, 2018 at 8:00 a.m. local time.

The enclosed Notice of 2018 Annual Meeting of Stockholders and the Proxy Statement contain details of the business to be conducted at the Annual Meeting and information you should consider when you vote your shares.

At the Annual Meeting, the agenda includes: (1) to elect two Class II directors, each to serve three-year terms until the 2021 annual meeting of stockholders and until the election and qualification of his successor, or his earlier death, resignation, or removal, (2) to ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2018 and (3) to approve an amendment to our Amended and Restated 2015 Equity Incentive Plan to increase the number of shares authorized for issuance thereunder by 300,000 shares. The Board of Directors unanimously recommends that you vote FOR the election of each director nominee, FOR the ratification of the appointment of Ernst & Young LLP and FOR the amendment to our Amended and Restated 2015 Equity Incentive Plan to increase the number of shares authorized for issuance thereunder by 300,000 shares. **Your vote is important.**

Whether or not you attend the Annual Meeting, it is important that your shares be represented and voted at the meeting. Therefore, I urge you to promptly vote by submitting your proxy via the Internet at the address listed on the proxy card or by signing, dating, and returning the enclosed proxy card in the enclosed envelope. If you decide to attend the Annual Meeting, you will be able to vote in person, even if you have previously submitted your proxy.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Gullans", with a long horizontal flourish extending to the right.

Steven Gullans, Ph.D.
Interim President and Chief Executive Officer

GEMPHIRE THERAPEUTICS INC.

17199 N. Laurel Park Drive, Suite 401
Livonia, Michigan 48152

NOTICE OF 2018 ANNUAL MEETING OF STOCKHOLDERS

To Be Held May 22, 2018

To Our Stockholders:

NOTICE IS HEREBY GIVEN that the 2018 Annual Meeting of Stockholders of Gemphire Therapeutics Inc. will be held at 315 East Eisenhower Parkway, Suite 100, Ann Arbor, Michigan 48108 on Tuesday, May 22, 2018 at 8:00 a.m. local time.

We are holding the meeting for the following purposes, which are more fully described in the accompanying proxy statement:

1. To elect two Class II directors, each to serve three-year terms until the 2021 annual meeting of stockholders and until the election and qualification of his successor, or his earlier death, resignation, or removal.
2. To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2018.
3. To approve an amendment to our Amended and Restated 2015 Equity Incentive Plan to increase the number of shares authorized for issuance thereunder by 300,000 shares.

In addition, stockholders may be asked to consider and vote upon such other business as may properly come before the meeting or any adjournment or postponement thereof.

Only stockholders of record at the close of business on March 29, 2018 are entitled to notice of, and to vote at, the meeting and any adjournments thereof. For ten days prior to the meeting, a complete list of the stockholders entitled to vote at the meeting will be available for examination by any stockholder for any purpose relating to the meeting during ordinary business hours at our headquarters.

Your vote as a Gemphire Therapeutics Inc. stockholder is very important. Each share of stock that you own represents one vote.

For questions regarding your stock ownership, you may contact our Chief Financial Officer and Secretary at (734) 245-1700 or jmathiesen@gemphire.com or, if you are a registered holder, our transfer agent, Computershare, Inc., by email through their website at <https://www-us.computershare.com/Investor/Contact> or by phone at (800) 736-3001. Whether or not you expect to attend the meeting, we encourage you to read the proxy statement and vote through the Internet, or request, sign and return your proxy card as soon as possible, so that your shares may be represented at the meeting. For specific instructions on how to vote your shares, please refer to the section entitled "General Information About the Meeting" in the proxy statement. If you attend the Annual Meeting, you may vote in person even if you have previously voted via the Internet or by returning your proxy card.

By Order of the Board of Directors



Jeffrey S. Mathiesen
Chief Financial Officer and Secretary

Livonia, Michigan
April 17, 2018

GEMPHIRE THERAPEUTICS INC.

PROXY STATEMENT FOR 2018 ANNUAL MEETING OF STOCKHOLDERS

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GEMPHIRE THERAPEUTICS INC.

17199 N. Laurel Park Drive, Suite 401
Livonia, Michigan 48152

PROXY STATEMENT FOR THE 2018 ANNUAL MEETING OF STOCKHOLDERS

GENERAL INFORMATION ABOUT THE MEETING

Our Board of Directors (the "Board") solicits your proxy on our behalf for the 2018 Annual Meeting of Stockholders (the "Annual Meeting") and at any postponement or adjournment of the Annual Meeting for the purposes set forth in this Proxy Statement and the accompanying Notice of 2018 Annual Meeting of Stockholders (the "Notice"). The Annual Meeting will be held at 315 East Eisenhower Parkway, Suite 100, Ann Arbor, Michigan 48108 on Tuesday, May 22, 2018 at 8:00 a.m. local time. This Proxy Statement is first being sent to stockholders on or about April 17, 2018.

References in this Proxy Statement to "we," "us," "the Company" and "our" refer to Gemphire Therapeutics Inc.

Purpose of the Meeting

At the meeting, stockholders will act upon the proposals described in this proxy statement. In addition, we will consider any other matters that are properly presented for a vote at the meeting. We are not aware of any other matters to be submitted for consideration at the meeting. If any other matters are properly presented for a vote at the meeting, the persons named in the proxy, who are officers of the Company, have the authority in their discretion to vote the shares represented by the proxy.

Record Date; Quorum

Only holders of record of common stock at the close of business on March 29, 2018 (the "Record Date") will be entitled to vote at the Annual Meeting. At the close of business on the Record Date, 14,232,313 shares of common stock were outstanding and entitled to vote.

The holders of a majority of the outstanding shares of stock entitled to vote at the meeting as of the record date must be present, in person, by remote communication, if applicable, or by proxy duly authorized at the meeting in order to hold the meeting and conduct business. This presence is called a quorum. Your shares are counted as present at the meeting if you are present and vote in person at the meeting or if you have properly submitted a proxy.

GENERAL PROXY INFORMATION

Voting Rights; Required Vote

Each holder of shares of common stock is entitled to one vote for each share of common stock held as of the close of business on the Record Date. You may vote all shares owned by you at such date, including (1) shares held directly in your name as the stockholder of record and (2) shares held for you as the beneficial owner in street name through a broker, bank, trustee or other nominee. Dissenters' rights are not applicable to any of the matters being voted on.

Stockholder of Record: Shares Registered in Your Name. If on the Record Date, your shares were registered directly in your name with our transfer agent, Computershare, Inc., then you are considered the stockholder of record with respect to those shares. As a stockholder of record, you may vote at the meeting, or vote in advance through the Internet or by mail.

Beneficial Owner: Shares Registered in the Name of a Broker or Nominee. If on the Record Date, your shares were held in an account with a brokerage firm, bank or other nominee, then you are the beneficial owner of the shares held in street name. As a beneficial owner, you have the right to direct your broker on how to vote the shares held in your account, and your broker has enclosed or provided voting instructions for you to use in directing it on how to vote your shares. Because the brokerage firm, bank or other nominee that holds your shares is the stockholder of record, if you wish to attend the meeting and vote your shares you must obtain a valid proxy from the firm that holds your shares giving you the right to vote the shares at the meeting.

Votes Required to Adopt Proposals. Each director will be elected by a plurality of the votes of shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. This means that the two individuals nominated for election to the Board at the Annual Meeting receiving the highest number of "FOR" votes will be elected. You may either vote "FOR" one or both of the nominees or "WITHHOLD" your vote with respect to one or both of the nominees. You may not cumulate votes in the election of directors. Approval of the ratification of the appointment of our independent registered public accounting firm will be obtained if the holders of a majority of the shares present in person or represented by proxy at the Annual Meeting and entitled to vote at the Annual Meeting vote "FOR" the proposal. Approval of the proposed amendment to our Amended and Restated 2015 Equity Incentive Plan will be obtained if the holders of a majority of the shares present in person or represented by proxy at the Annual Meeting and entitled to vote at the Annual Meeting vote "FOR" the proposal.

A proxy submitted by a stockholder may indicate that the shares represented by the proxy are not being voted (stockholder withholding) with respect to a particular matter. In addition, a broker may not be permitted to vote on shares held in street name on a particular matter in the absence of instructions from the beneficial owner of the stock (broker non-vote). The shares subject to a proxy which are not being voted on a particular matter because of either stockholder withholding or broker non-votes will count for purposes of determining the presence of a quorum. Abstentions are counted in the determination of a quorum. Abstentions and broker non-votes will have no effect on the election of directors. Abstentions and broker non-votes will also have no effect on the outcome of ratification of the appointment of Ernst & Young LLP ("Ernst & Young") or the amendment to our Amended and Restated 2015 Equity Incentive Plan unless you return your proxy card and select "Abstain", which will have the same effect as a vote against each matter.

Recommendations of the Board on Each of the Proposals Scheduled to be Voted on at the Annual Meeting

The Board of Directors recommends that you vote **FOR** the election of each of the Class II directors named in this proxy statement (Proposal 1), **FOR** the ratification of the appointment of Ernst & Young as our independent registered public accounting firm for the fiscal year ending December 31, 2018 (Proposal 2) and **FOR** the amendment to our Amended and Restated 2015 Equity Incentive Plan to increase the number of shares authorized for issuance thereunder by 300,000 shares (Proposal 3).

Voting Instructions; Voting of Proxies

If you are a stockholder of record, you may:

- Vote in person—we will provide a ballot to stockholders who attend the Annual Meeting and wish to vote in person. Submitting a proxy will not prevent a stockholder from attending the Annual Meeting, revoking their earlier-submitted proxy, and voting in person.
- Vote through the Internet—you may vote through the Internet. To vote by Internet, you will need to use a control number provided to you in the materials with this proxy statement and

follow the additional steps when prompted. The steps have been designed to authenticate your identity, allow you to give voting instructions, and confirm that those instructions have been recorded properly.

- Vote by mail—complete, sign and date the accompanying proxy card and return it as soon as possible before the Annual Meeting in the envelope provided. If the postage-paid envelope is missing, please mail your completed proxy card to the attention of our Secretary, Gemphire Therapeutics Inc., 17199 N. Laurel Park Drive, Suite 401, Livonia, Michigan 48152.

Votes submitted through the Internet must be received by 11:59 p.m., Eastern Time, on May 21, 2018. Submitting your proxy, whether through the Internet or by mail, will not prevent a stockholder from attending the Annual Meeting, revoking their earlier-submitted proxy, and voting in person. If you are not the stockholder of record, please refer to the voting instructions provided by your nominee to direct it on how to vote your shares. You may either vote "FOR" all of the nominees to the Board, or you may withhold your vote from any nominee you specify. For Proposals 2 and 3, you may vote "FOR" or "AGAINST" or "ABSTAIN" from voting. Your vote is important. Whether or not you plan to attend the Annual Meeting, we urge you to vote by proxy to ensure that your vote is counted.

All proxies will be voted in accordance with the instructions specified on the proxy card. If you sign a physical proxy card and return it without instructions as to how your shares should be voted on a particular proposal at the Annual Meeting, your shares will be voted in accordance with the recommendations of our Board stated above.

If you do not vote and you hold your shares in street name, and your broker does not have discretionary power to vote your shares, your shares may constitute "broker non-votes" (as described above).

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

Expenses of Soliciting Proxies

We will pay the expenses associated with soliciting proxies. Following the original distribution and mailing of the solicitation materials, we or our agents may solicit proxies by mail, electronic mail, telephone, facsimile, by other similar means, or in person. Our directors, officers and other employees, without additional compensation, may solicit proxies personally or in writing, by telephone, e-mail or otherwise. Following the original distribution and mailing of the solicitation materials, we will request brokers, custodians, nominees and other record holders to forward copies of those materials to persons for whom they hold shares and to request authority for the exercise of proxies. In such cases, we, upon the request of the record holders, will reimburse such holders for their reasonable expenses.

Revocability of Proxies

A stockholder of record who has given a proxy may revoke it at any time before the closing of the polls by the inspector of elections at the meeting by:

- delivering to our Secretary (by any means, including facsimile) a written notice stating that the proxy is revoked;
- signing and delivering a proxy bearing a later date;
- voting again through the Internet; or
- attending and voting at the Annual Meeting (although attendance at the meeting will not, by itself, revoke a proxy).

Please note, however, that if your shares are held of record by a brokerage firm, bank or other nominee and you wish to revoke a proxy, you must contact that firm to revoke or change any prior voting instructions.

Voting Results

Voting results will be tabulated and certified by the inspector of elections appointed for the Annual Meeting. The preliminary voting results will be announced at the Annual Meeting and posted on our website at <http://ir.gemphire.com>. The final results will be tallied by the inspector of elections and filed with the Securities and Exchange Commission (the "SEC") in a current report on Form 8-K, which we intend to file within four business days of the Annual Meeting.

Implications of Being an "Emerging Growth Company"

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements. These reduced reporting requirements include reduced disclosure about the Company's executive compensation arrangements and no requirement to have non-binding advisory votes on executive compensation. We will remain an emerging growth company until the earlier of (1) December 31, 2021, (2) the last day of the fiscal year (a) in which we have total annual gross revenue of at least \$1.07 billion, or (b) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th, and (3) the date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three-year period.

CORPORATE GOVERNANCE STANDARDS AND DIRECTOR INDEPENDENCE

We are committed to good corporate governance practices. These practices provide an important framework within which our Board and management pursue our strategic objectives for the benefit of our stockholders.

Corporate Governance Guidelines

Our Board has adopted Corporate Governance Guidelines that set forth expectations for directors, director independence standards, Board committee structure and functions and other policies for the governance of the Company. Our Corporate Governance Guidelines are available without charge on the investor relations section of our website at <http://ir.gemphire.com> under "Corporate Governance—Highlights".

Board Leadership Structure

Our Board is currently chaired by our Chief Scientific Officer, Dr. Bisgaier, who has authority, among other things, to call and preside over meetings of our Board, to set meeting agendas and to determine materials to be distributed to the Board and, accordingly, has substantial ability to shape the work of the Board. Although our chairman of the Board is an executive officer of the Company, the positions of our chairman of the Board and Chief Executive Officer are presently separated. Separating these positions allows our Interim Chief Executive Officer, Dr. Gullans, to focus on our day-to-day business, while allowing Dr. Bisgaier, our co-founder who was also instrumental in the discovery and development of gemcabene, to lead the Board.

Role of the Board in Risk Oversight

One of the key functions of our Board 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 the Board as a whole, as well as through various standing committees of our Board that address risks inherent in their respective areas of oversight. This risk management process allows our Board to play an active role in understanding and overseeing the management of risks that our Company faces and ensures that management has the framework and processes in place to effectively and adequately monitor and manage these risks. In particular, our Board is responsible for monitoring and assessing strategic risk exposure and our audit committee has the responsibility to consider and discuss our major financial risk exposures and the steps our 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. The audit committee also monitors compliance with legal and regulatory requirements. Our nominating and corporate governance committee monitors the effectiveness of our corporate governance practices, including whether they are successful in preventing illegal or improper liability-creating conduct. Our compensation committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking.

Director Independence

Our common stock is listed on the NASDAQ Global Market ("NASDAQ"). Under the rules of NASDAQ, independent directors must comprise a majority of a listed company's Board. In addition, the rules of NASDAQ require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent. Under the rules of NASDAQ, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Additionally, compensation committee members must not have a relationship with us that is material to the director's ability to be independent from management in connection with the duties of a compensation committee member.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board of directors committee: (i) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries; or (ii) be an affiliated person of the listed company or any of its subsidiaries.

Our Board has undertaken a review of the independence of each director and considered whether each director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. As a result of this review, our Board determined that persons who served as members of our Board during 2017 are "independent directors" as defined under the applicable rules and regulations of the SEC and the listing requirements and rules of NASDAQ, except as follows: Dr. Gullans, our Interim President and Chief Executive Officer, and Dr. Bisgaier, our Chairman and Chief Scientific Officer, are not independent, and Mina Sooch, our former President, Chief Executive Officer and director, was not independent. In making this determination, our Board considered the current and prior relationships that each non-employee director has with us and all other facts and circumstances that our Board deemed relevant in determining each non-employee director's independence, including the participation by our non-employee directors, or their affiliates, in certain financing transactions by the Company and the beneficial ownership of our common stock by each non-employee director. See "Certain Relationships and Related Party Transactions" and "Security Ownership of Certain Beneficial Owners and Management."

Committees of Our Board

Our Board has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which has the composition and responsibilities described below. Members serve on these committees until their resignation or until otherwise determined by our Board.

Copies of the charters for the audit, compensation and nominating and corporate governance committees are available without charge on the investor relations section of our website at <http://ir.gemphire.com> under "Corporate Governance—Highlights".

Audit Committee

Our audit committee is comprised of Mr. Kousky, Mr. Lichtinger and Mr. Sassine, and Mr. Sassine is currently the chairman. Each member of our audit committee meets the requirements for independence under the current NASDAQ and SEC rules and regulations and is financially literate. In addition, our Board has determined that Mr. Kousky is an "audit committee financial expert" as defined in Item 407(d)(5)(ii) of Regulation S-K promulgated under the Securities Act of 1933, as amended (the "Securities Act"). This designation does not impose on him any duties, obligations or liabilities that are greater than are generally imposed on members of our audit committee and our Board. Our audit committee is directly responsible for, among other things:

- our accounting and financial reporting processes, including our financial statement audits and the integrity of our financial statements;
- our compliance with legal and regulatory requirements;
- the qualifications, independence and performance of our independent auditors; and
- the preparation of the audit committee report to be included in our annual proxy statement.

The responsibilities and activities of the audit committee are described further in its charter.

Compensation Committee

Our compensation committee is currently comprised of Mr. Hawryluk and Mr. Lichtinger, and Mr. Hawryluk is currently the chairman. Each member of our compensation committee meets the requirements for independence under the current NASDAQ and SEC rules and regulations, is an outside director, as defined pursuant to Section 162(m) of the Internal Revenue Code of 1984, as amended, or the Code, and is a non-employee director as defined in Rule 16b-3 promulgated under the Exchange Act. Our compensation committee is responsible for, among other things:

- evaluating, recommending, approving and reviewing executive officer and director compensation arrangements, plans, policies and programs;
- administering our cash-based and equity-based compensation plans; and
- making recommendations to our Board regarding any other Board responsibilities relating to executive compensation.

The executive officer compensation program is substantially based on decisions made by the compensation committee, in consultation with certain members of management, including our Chief Executive Officer. Compensation determinations for the executive officers are made based on historical practice, Company and individual performance and benchmarking compensation of similar positions at peer group companies.

Our compensation committee retained an independent compensation consultant, Haigh & Company, to assist in structuring our compensation program for 2017. Haigh & Company provided our

compensation committee with market data and analyses regarding our executive officer and non-employee director compensation from a peer group of similarly-sized life-sciences companies with similar business and financial characteristics. Other than the services described above, Haigh & Company has not provided our Company or our compensation committee with any other services. No work performed by Haigh & Company during 2017 raised a conflict of interest.

The compensation committee may form and delegate its authority to subcommittees as appropriate. The responsibilities and activities of the compensation committee are described further in its charter.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee is comprised of Mr. Hawryluk, Mr. Kousky and Mr. Sassine, and Mr. Kousky is currently the chairman. Each member of our nominating and corporate governance committee meets the requirements for independence under the current NASDAQ and SEC rules and regulations. Our nominating and corporate governance committee is responsible for, among other things:

- identifying, considering and recommending candidates for membership on our Board;
- overseeing the process of evaluating the performance of our Board; and
- advising our Board on other corporate governance matters.

The responsibilities and activities of the nominating and corporate governance committee are described further in its charter.

Code of Business Conduct and Ethics

Our Board has adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer and other executive officers. We intend to disclose future amendments to certain provisions of our code of business conduct and ethics, or waivers of these provisions, on our website. The full text of our code of conduct is posted on the investor relations section of our website at <http://ir.gemphire.com> under "Corporate Governance—Highlights".

Compensation Committee Interlocks and Insider Participation

None of the current members of the compensation committee is or has been an officer or an employee of the Company. None of our current executive officers has served as a member of the Board, or as a member of the compensation or similar committee, of any entity that has one or more executive officers who served on our Board or compensation committee during the fiscal year ended December 31, 2017. During 2017, Dr. Gullans served on our compensation committee and nominating and corporate governance committee prior to his appointment as our Interim Chief Executive Officer. See "Certain Relationships and Related Party Transactions" for information regarding the participation by Mr. Hawryluk, Mr. Lichtinger and Dr. Gullans, or their respective affiliates, in certain financing transactions by the Company.

Board and Committee Meetings and Attendance

The Board and its committees meet regularly throughout the year and also hold special meetings. During 2017, the Board held 10 meetings; the audit committee held 4 meetings; the compensation committee held 5 meetings; and the nominating and corporate governance committee held no meetings, in each case, including telephonic meetings. The Board and its committees also act by written consent from time to time. During 2017, none of the directors attended fewer than 75% of the aggregate of the

total number of meetings held by the Board during his or her tenure and the total number of meetings held by all committees of the Board on which such director served during his or her tenure. The independent members of the Board also meet separately without management directors on a regular basis to discuss such matters as the independent directors consider appropriate.

Board Attendance at Annual Stockholders' Meeting

Directors are requested to attend the Annual Meeting, either in person or telephonically. Our non-employee directors did not attend the 2017 Annual Meeting.

Communication with Directors

Stockholders and interested parties who wish to communicate with our Board, non-management members of our Board as a group, a committee of the Board or a specific member of our Board (including our Chairman) may do so by letters addressed to the attention of our Secretary, Gemphire Therapeutics Inc., 17199 N. Laurel Park Drive, Suite 401, Livonia, Michigan 48152.

All communications by letter addressed to the attention of our Secretary will be reviewed by the Secretary and provided to the members of the Board unless such communications are unsolicited items, sales materials and other routine items and items unrelated to the duties and responsibilities of the Board.

Considerations in Evaluating Director Nominees

The nominating and corporate governance committee reviews and makes recommendations to the Board, from time to time, regarding the appropriate skills and characteristics required of Board members in the context of the current make-up of the Board, the operations of the Company and the long-term interests of stockholders. See "Proposal No. 1, Election of Class II Directors". The committee does not have a specific diversity policy underlying its nomination process, although it seeks to ensure the Board includes directors with diverse backgrounds, qualifications, skills and experience relevant to the Company's business.

In the case of an incumbent director whose term of office is set to expire, the nominating and corporate governance committee considers such director's overall service to the Company during his or her term, including the number of meetings attended, level of participation, quality of performance, and any other relationships and transactions that might impair such director's independence. Generally, the committee will re-nominate incumbent directors who continue to satisfy the committee's criteria for membership on the Board, continue to make important contributions to the Board and consent to continue their service on the Board.

If a vacancy on the Board occurs or the Board increases in size, the nominating and corporate governance committee will actively seek individuals that satisfy the committee's criteria for membership on the Board, and the committee may rely on multiple sources for identifying and evaluating potential nominees, including referrals from our current directors and management. In 2017, following the departure of our Chief Executive Officer, the Board engaged a search firm in connection with identifying and evaluating candidates for the role of Chief Executive Officer. Otherwise, the committee did not employ a search firm or pay fees to other third parties in connection with identifying or evaluating Board nominee candidates in 2017.

Stockholder Recommendations for Nominations to the Board of Directors

The nominating and corporate governance committee will consider properly submitted stockholder recommendations for candidates for our Board who meet the minimum qualifications as described above so long as such recommendations are sent on a timely basis and are otherwise in accordance

with our Third Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and applicable law. A stockholder of record can nominate a candidate for election to the Board by complying with the procedures in Article III, Section 5 of our Amended and Restated Bylaws and applicable law. Any eligible stockholder who wishes to submit a nomination should review the requirements in the Amended and Restated Bylaws on nominations by stockholders. Any nomination should be sent in writing to our Secretary, Gemphire Therapeutics Inc., 17199 N. Laurel Park Drive, Suite 401, Livonia, Michigan 48152.

See "Additional Information—Stockholder Proposals to be Presented at Next Annual Meeting" for additional information. The committee will evaluate nominees recommended by stockholders against the same criteria that it uses to evaluate other nominees. We did not receive any nominations of directors by stockholders for the Annual Meeting.

PROPOSAL NO. 1
ELECTION OF CLASS II DIRECTORS

Our Board of Directors is divided into three classes. Members of each class serve staggered three-year terms. Directors in Class II will stand for election at this meeting. The terms of office of directors in Class III and Class I do not expire until the annual meetings of stockholders to be held in 2019 and 2020, respectively. Based on the recommendation of the nominating and corporate governance committee of our Board, our Board has nominated Dr. Steven Gullans and Mr. P. Kent Hawryluk for election as Class II directors to serve for three-year terms ending at the 2021 annual meeting or until their successors are elected and qualified.

Each of the nominees is a current member of our Board and has consented to serve if elected. If any of them should become unavailable, the Board may designate a substitute nominee. In that case, the proxy holders named as proxies in the accompanying proxy card will vote for the Board's substitute nominee and make appropriate disclosures. Alternatively, the Board may leave the position vacant.

Each director will be elected by a plurality of the votes present in person or represented by proxy at the meeting and entitled to vote. This means that the two individuals nominated for election to the Board at the Annual Meeting receiving the highest number of "FOR" votes will be elected. You may either vote "FOR" one or both of the nominees or "WITHHOLD" your vote with respect to one or both of the nominees. You may not cumulate votes in the election of directors. Shares represented by proxies will be voted "FOR" the election of each of the Class II nominees, unless the proxy is marked to withhold authority to so vote. If any nominee is unable or unwilling to serve at the time of the Annual Meeting, the persons named as proxies may vote for a substitute nominee chosen by the present Board. In the alternative, the proxies may vote only for the remaining nominees, leaving a vacancy on the Board. The Board may fill such vacancy at a later date or reduce the size of the Board. We have no reason to believe that any of the nominees will be unwilling or unable to serve if elected as a director. Additional information regarding the directors and director nominees of the Company is set forth below.

Nominees to the Board of Directors

The nominees of the Company are as follows:

| <u>NAME</u> | <u>AGE</u> | <u>TITLE</u> | <u>CLASS</u> |
|---------------------|------------|---|--------------|
| Dr. Steven Gullans | 65 | Interim President and Chief Executive Officer, Director | Class II |
| P. Kent Hawryluk(1) | 49 | Director | Class II |

(1) Chairman of the compensation committee and member of the nominating and corporate governance committee.

Dr. Steven Gullans has been our Interim President and Chief Executive Officer since May 2017 and has served as a member of our Board since April 2016. As Interim CEO, Dr. Gullans oversees the daily operations of the Company and manages the executive team including the CFO, CSO, CMO, CCO, and VP of Manufacturing who report to him. His responsibilities include oversight of activities related to clinical trials, manufacturing, finances, business development, R&D and intellectual property. He communicates regularly with the Board of Directors about the status of the Company and future plans. He is currently Managing Director at Excel Venture Management, LLC (Excel), a Boston-based venture capital firm which he co-founded and where he has been employed since February 2008. At Excel, he focuses on investing in life science technology companies with a particular interest in disruptive platforms that can impact multiple industries. Prior to Excel, Dr. Gullans co-founded RxGen, Inc., a pharmaceutical services company where he served as chief executive officer from January 2004 to February 2008. Dr. Gullans is currently a director at N-of-One, Inc., an oncology diagnostics company and Orionis Biosciences, a drug development company. He was previously a board

member of Activate Networks, Inc. which was acquired by Decision Resource Group, BioTrove, Inc. which was acquired by Life Technologies Corporation, Biocius Life Sciences, Inc. which was acquired by Agilent Technologies Inc., Cleveland HeartLab, Inc., which was acquired by Quest Diagnostics, nanoMR Inc. which was acquired by DNA Electronics Ltd, Tetrphase Pharmaceuticals, Inc. which went public in 2013, and Molecular Templates, Inc. which was merged into a public entity in 2017. Dr. Gullans was a faculty member at Harvard Medical School and Brigham and Women's Hospital for almost 20 years. Dr. Gullans holds a B.S. from Union College and a Ph.D. from Duke University. Our Board believes Dr. Gullans should serve as a director based on his extensive experience in the life sciences industry and his board and CEO experience.

P. Kent Hawryluk has served as a member of our Board since February 2015. He is the Co-Founder and has served as the Chief Business Officer of Avidity Biosciences LLC, a biotech company focused on antibody-directed oligonucleotide therapeutics, since January 2013. He was also Co-Founder and served as the Chief Executive Officer of MB2 LLC, a clinical-stage company focused on diabetes and obesity, from May 2014 to March 2016. MB2 was acquired by Novo Nordisk in October 2015. Previously, in January 2006, Mr. Hawryluk co-founded Marcadia Biotech Inc., which was acquired by Roche Holding Ltd., where he served as Chief Business Officer and Vice President, Business Development from January 2006 to April 2011. He currently serves as partner of Twilight Venture Partners, LLC, a private seed and early-stage life science venture capital fund. He was a founding partner of JEGI Capital, LLC, a venture capital fund co-sponsored by GE Capital Corp. that launched in 2000. Mr. Hawryluk holds a B.A. from Princeton University, an M.B.A. from Kellogg School of Management at Northwestern University, and an M.S. degree in biology from Indiana University-Purdue University Indianapolis. Our Board believes Mr. Hawryluk should serve as a director based on his experience founding and developing biopharmaceutical companies and his knowledge of the biopharmaceutical industry.

Continuing Directors

The directors who are serving for terms that end following the 2018 annual meeting are as follows:

| <u>NAME</u> | <u>AGE</u> | <u>TITLE</u> | <u>CLASS</u> |
|------------------------|------------|--|--------------|
| Pedro Lichtinger(1)(2) | 63 | Director | Class III |
| Andrew Sassine(2)(3) | 53 | Director | Class III |
| Dr. Charles Bisgaier | 64 | Chief Scientific Officer and Chairman of the Board | Class I |
| Kenneth Kousky(2)(3) | 63 | Director | Class I |

- (1) Member of the compensation committee.
- (2) Member of the audit committee.
- (3) Member of the nominating and corporate governance committee.

Pedro Lichtinger has served as a member of our Board since December 2015. Mr. Lichtinger is currently Chairman, Chief Executive Officer, and Director of ChemioCare Inc., a private biotechnology company focused on the CIMV (Chemotherapy Induced Nausea and Emesis) therapeutic area. He was previously the President, Chief Executive Officer, and Director of Asterias Biotherapeutics, a publicly traded company with a focus on neurology and oncology from June 2014 to February 2016. Mr. Lichtinger served as President, Chief Executive Officer, and a director of Optimer Pharmaceuticals, Inc., from May 2010 to February 2013. Mr. Lichtinger previously served as an executive of Pfizer, Inc. from 1995 to 2009, including as President of Pfizer's Global Primary Care Unit from 2008 to 2009, Area President, Europe from 2006 to 2008, President, Global Animal Health from 1999 to 2006, and Regional President Europe Animal Health from 1995 to 1999. Before joining Pfizer, Mr. Lichtinger was an executive of Smith Kline Beecham Plc, last serving as Senior Vice-President Europe Animal Health from 1987 to 1995. Mr. Lichtinger serves as a director of Sanfer de Mexico, a

leading Mexican pharmaceutical company and is on the advisory board of Zero Gravity Solutions, Inc., an agricultural company. Mr. Lichtinger previously served as a director of BioTime, Inc. Mr. Lichtinger holds an MBA degree from the Wharton School of Business and an engineering degree from the National University of Mexico. Our Board believes Mr. Lichtinger should serve as director based on his extensive pharmaceutical industry and public company leadership experience.

Andrew Sassine has served as a member of our Board since May 2015. Mr. Sassine served in various positions at Fidelity Investments from 1999 to 2012, including as a Portfolio Manager for various funds from 2005 to December 2011. Mr. Sassine has also served on several boards of life science companies. Mr. Sassine currently serves on the board of directors of iCAD, Inc., a public cancer detection and radiation therapy solutions company and previously served on the boards of directors of FluoroPharma Medical, Inc., a public biopharmaceutical company, Acorn Energy, Inc., a public holding company focused on technology solutions for energy infrastructure asset management and CNS Response, Inc., a public psychiatric clinical decision support company. Mr. Sassine also serves on the board of directors of Freedom Meditech, Inc., a private medical device company, and Comhear Inc., a private digital audio software and device company, where he is also the chairman of the board of directors. Mr. Sassine serves on the Strategic Advisory Board of MD Revolution Inc., a private digital health service company. Mr. Sassine has been a member of the Henry B. Tippie College of Business, University of Iowa Board of Advisors since 2009 and served on the board of trustees at the Clarke Schools for Hearing and Speech from 2009 through 2014. Mr. Sassine holds a B.A. from the University of Iowa and an M.B.A. from the Wharton School at the University of Pennsylvania. Our Board believes Mr. Sassine should serve as a director based on his extensive experience in the public markets as well as his financial expertise.

Dr. Charles Bisgaier, one of our co-founders, has served as our Chief Scientific Officer and Chairman of our Board since November 2014. He also currently serves as an Adjunct Associate Professor of Pharmacology at the University of Michigan. Prior to our founding, he served from September 2008 to November 2014 as the Chief Executive Manager for our predecessor, Michigan Life Therapeutics, LLC. In addition, he co-founded Michigan Life Ventures, LLC, a venture capital firm investing primarily in Michigan-based life sciences companies, where since 2008 he has served as the Chief Executive Manager. He also served as the Interim President and Chief Executive Officer of ProNAi Therapeutics, Inc., currently known as Sierra Oncology, a clinical-stage oncology company, from September 2010 to April 2012, and as a member of its board of directors from 2009 to March 2014. In 1998, Dr. Bisgaier co-founded the original Esperion, which was acquired by Pfizer in 2003. After the acquisition, he served as the Senior Director of Pharmacology for the Esperion Division of Pfizer Global Research and Development from 2004 to 2006. From 2006 to 2008, Dr. Bisgaier also served as a director, board member and president of Pipex Pharmaceuticals, Inc., currently known as Synthetic Biologics, Inc., a specialty pharmaceutical company. From 1990 to 1998, Dr. Bisgaier was an Associate Research Fellow in the Department of Cardiovascular Diseases in the Parke-Davis division of Warner-Lambert Co. Currently he is a board member at Hygieia, Inc., a privately held health service company, at BioSavita Inc., a privately held life sciences company, and at Diapin Therapeutics LLC, a privately held life sciences company. He received a B.A. in biology from the State University of New York at Oneonta and an M.S. and Ph.D. in biochemistry from George Washington University. After receiving his Ph.D., he studied lipoprotein metabolism within the Specialized Center of Research for atherosclerosis at Columbia University College of Physicians and Surgeons. Our Board believes Dr. Bisgaier should serve as a director based on his depth of experience in founding and developing biopharmaceutical companies as well as his knowledge of our product candidate gemcabene.

Kenneth Kousky has served as a member of our Board since March 2015. Mr. Kousky has also served as the Chief Executive Officer of the Mid-Michigan Innovation Center, a privately funded, non-profit business incubator, since 2010. He has also served as the President and Chief Executive Officer of IP3, Inc., an information security consulting firm, since 2002. Also, Mr. Kousky is a founding

member and has served as Executive Director of the Blue Water Angels Investment Network, a Michigan-based funding network that assists in private equity investments in early-stage tech startups, since 2008. In 1988, Mr. Kousky founded an IT services company, Wave Technologies International Inc., which he led through an initial public offering in 1994. In 1989, he established Washington University's graduate program in Telecommunication Management, and he has lectured at Saginaw Valley State University, Washington University and at the Wharton School of Business at the University of Pennsylvania. Mr. Kousky is a member of several corporate boards, including Michigan Sugar Company, RetroSense Therapeutics LLC and Foodjunky LLC. Mr. Kousky holds a B.A. in economics and urban studies from Washington University, and an M.S. in economics from University of Pennsylvania. Our Board believes Mr. Kousky should serve as a director based on his extensive financial and strategic business planning experience.

There are no familial relationships among any of our directors and executive officers.

Non-Employee Director Compensation

Our non-employee directors receive a mix of cash and share-based compensation intended to encourage non-employee directors to continue to serve on our board of directors, further align the interests of the directors and stockholders, and attract new non-employee directors with outstanding qualifications. Directors who are employees or officers of the Company do not receive any additional compensation for Board service.

Our non-employee director compensation policy became effective following the completion of our initial public offering in August 2016. Pursuant to this policy, each of our non-employee directors receives an annual retainer of \$50,000. Additionally, the Chairmen of our Audit, Compensation and Nominating and Corporate Governance Committees receive an additional annual payment of \$15,000, \$7,500 and \$5,000, respectively; and the members of each of our committees receive an additional annual payment of \$5,000.

On the date of each non-employee director's initial election to the Board, each such director will be automatically granted a stock option for 60,000 shares, which will vest in a series of 48 equal monthly installments, subject to the director's continued service, and will vest in full upon a change in control (as defined in the Gemphire Therapeutics Inc. Amended and Restated 2015 Equity Incentive Plan (the "2015 Plan")).

The following table provides compensation information for the fiscal year ended December 31, 2017 for each non-employee member of our Board.

| <u>Name</u> | <u>Fees Earned or Paid in Cash (\$)</u> | <u>Total (\$)</u> |
|------------------|---|-----------------------|
| P. Kent Hawryluk | 62,500 | 62,500 |
| Kenneth Kousky | 55,000 | 55,000 |
| Pedro Lichtinger | 60,000 | 60,000 |
| Andrew Sassine | 70,000 | 70,000 |

As of December 31, 2017, each of the following non-employee directors had shares underlying outstanding stock options as follows: Mr. Hawryluk, 60,000; Mr. Kousky, 68,016; Mr. Lichtinger, 92,062; and Mr. Sassine, 92,062. On January 29, 2018, each non-employee director was issued an option to purchase 10,800 shares of our common stock with an exercise price of \$10.44 under our 2015 Plan.

As named executive officers of the Company, compensation paid to Dr. Gullans and Dr. Bisgaier for the 2016 and 2017 fiscal years is fully reflected under "Named Executive Officer Compensation Tables—Summary Compensation Table for 2017".

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF EACH OF THE NOMINATED CLASS II DIRECTORS.

PROPOSAL NO. 2
RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Ernst & Young audited our financial statements for the fiscal years ended December 31, 2017, 2016 and 2015. We expect that representatives of Ernst & Young will be present at the Annual Meeting, will be able to make a statement if they so desire and will be available to respond to appropriate questions.

At the Annual Meeting, the stockholders are being asked to ratify the appointment of Ernst & Young as our independent registered public accounting firm for the fiscal year ending December 31, 2018. Our audit committee is submitting the selection of Ernst & Young to our stockholders because we value our stockholders' views on our independent registered public accounting firm and as a matter of good corporate governance. If this proposal does not receive the affirmative approval of a majority of the votes cast on the proposal, the audit committee would reconsider the appointment. Notwithstanding its selection and even if our stockholders ratify the selection, our audit committee, in its discretion, may appoint another independent registered public accounting firm at any time during the year if the audit committee believes that such a change would be in our best interests and the interests of our stockholders.

Service Fees Paid to the Independent Registered Public Accounting Firms

The Audit Committee has considered the scope and fee arrangements for all services provided by Ernst & Young, taking into account whether the provision of non-audit-related services is compatible with maintaining Ernst & Young's independence. We retained Ernst & Young to provide services in the following categories and amounts, and the following table presents fees for professional audit services rendered by Ernst & Young for the audit of our annual financial statements for the years ended December 31, 2017 and 2016.

| <u>FEE CATEGORY</u> | <u>FISCAL YEAR 2017</u> | <u>FISCAL YEAR 2016</u> |
|-----------------------|-------------------------|-------------------------|
| Audit fees(1) | \$ 362,560 | \$ 451,600 |
| Audit-related fees(2) | — | — |
| Tax fees(3) | \$ 4,000 | \$ 25,103 |
| All other fees(4) | — | — |
| Total fees | \$ 366,560 | \$ 476,703 |

- (1) Audit fees include fees for professional services provided by Ernst & Young in connection with the audit of our consolidated financial statements, review of our quarterly consolidated financial statements, and related services that are typically provided in connection with registration statements, including our initial public offering.
- (2) Audit-related fees include fees billed for assurance and related services reasonably related to the performance of the audit of our financial statements. There were no audit related fees billed by Ernst & Young in 2017 or 2016.
- (3) Tax fees relate to permissible services for technical tax advice related to federal and state income tax matters.
- (4) There were no other fees billed by Ernst & Young for any other services in 2017 or 2016.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

Our audit committee generally pre-approves all audit and permitted non-audit and tax services provided by the independent registered public accounting firm. Pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. The independent registered public accounting firm and management are required to periodically report to the audit committee regarding the extent of services provided by the independent registered public accounting firm in accordance with this pre-approval, and the fees for the services performed to date. Our audit committee may also pre-approve particular services on a case-by-case basis. All of the services relating to the fees described in the table above were approved by our audit committee.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" APPROVAL OF PROPOSAL NO. 2.

PROPOSAL NO. 3
APPROVAL OF AMENDMENT TO THE GEMPHIRE THERAPEUTICS INC. AMENDED AND
RESTATED 2015 EQUITY INCENTIVE PLAN

The Company's stockholders are being asked to approve an amendment to the Amended and Restated 2015 Equity Incentive Plan (the "2015 Plan") that would increase the number of shares of common stock reserved for issuance under the 2015 Plan by 300,000 shares, effective on the date that our stockholders approve the proposed amendment. Our board of directors and compensation committee has approved the amendment to the 2015 Plan, subject to the approval of our stockholders at the Annual Meeting, and recommends that stockholders approve the proposed amendment.

The 2015 Plan is the only equity plan of the Company available for the grant of equity awards to existing employees, including officers, non-employee directors and consultants. Our board of directors may also issue awards to individuals who were not previously employees or directors of the Company pursuant to our Inducement Plan, which was approved by our board of directors without stockholder approval pursuant to Rule 5635(c)(4) of the NASDAQ Listing Rules. As of the Record Date, the Company had (i) 14,232,313 shares of common stock outstanding, (ii) under the 2015 Plan, options to purchase an aggregate of 2,640,140 shares of common stock outstanding, with a weighted average exercise price of \$9.37 per share and a weighted average term of 10 years, and 151,406 shares available for future grant (excluding the 300,000 shares subject to this proposal) and (iii) under the Inducement Plan, options to purchase an aggregate of 296,000 shares of common stock outstanding, with a weighted average exercise price of \$11.40 per share and a weighted average term of 10 years, and 4,000 shares available for future grant. The number of shares reserved for future issuance under the Inducement Plan can be increased by our board of directors at any time without stockholder approval pursuant to Rule 5635(c)(4) of the NASDAQ Listing Rules and, in April 2018, following the Record Date, our compensation committee approved an increase to the number of shares of common stock reserved for issuance under the Inducement Plan by 150,000 shares and granted an option to purchase 50,000 shares of common stock to a new employee. See "Executive Compensation—Employee Benefit and Stock Plans—Inducement Plan."

We are not proposing any change to the "evergreen" provision of the 2015 Plan. Pursuant to such provision, the number of shares of our common stock reserved for issuance under our 2015 Plan will automatically increase on January 1, 2019 to an amount equal to 20% of the fully diluted shares as of December 31, 2018. In the first quarter of 2018, we issued 3,592,858 shares of common stock in an underwritten public offering. The total number of shares reserved under the 2015 Plan, taking into account the 300,000 shares subject to the proposed amendment, constitutes less than 20% of the fully diluted shares as of the Record Date. Therefore, the shares subject to the amendment (plus any additional shares up to 20% of the fully diluted shares as of December 31, 2018) are nonetheless expected to become available for future issuance under the 2015 Plan on January 1, 2019 if the amendment is not approved. The Company is proposing the amendment to the 2015 Plan to make such shares available for issuance during fiscal 2018 and earlier than they otherwise would be available for issuance under the 2015 Plan pursuant to such "evergreen" provision. If this share increase is not approved, only 151,406 shares will be available under the 2015 Plan for employee, director and consultant grants for the remainder of fiscal 2018. See "—Summary of 2015 Plan—Share Reserve" below for a description of such "evergreen" provision.

Our directors and executive officers have an interest in this proposal by virtue of their being eligible to receive equity awards under the 2015 Plan; furthermore, approximately 150,000 of the 300,000 shares subject to the amendment are expected to be required for the grant of options to a permanent replacement to our former President and Chief Executive Officer, when one is named. See "—Plan Benefits" below.

Summary of 2015 Plan

The following summary of the 2015 Plan as currently in effect is qualified in its entirety by the specific language of the 2015 Plan. The 2015 Plan as in effect prior to the Annual Meeting is set forth as Exhibit 10.3 to our Registration Statement on Form S-1 filed with the SEC on June 13, 2016. The full text of the proposed amendment to the 2015 Plan is set forth as Appendix A to this proxy statement.

Our board of directors initially adopted the 2015 Plan in April 2015, and our stockholders approved the 2015 Plan in April 2015. In April 2016, our board of directors and stockholders approved the amendment and restatement of the 2015 Plan in order to increase the share reserve under the 2015 Plan, include an "evergreen" provision, allow limited delegation of award authority to an executive officer and include certain annual limits on equity awards, which amendments became effective on August 4, 2016. We refer to such amended and restated plan as the 2015 Plan.

Stock Awards. The 2015 Plan provides for the grant of incentive stock options (ISOs), nonstatutory stock options (NSOs), stock appreciation rights, restricted stock awards, restricted stock unit awards (RSUs), performance-based (stock and cash) awards, and other forms of equity compensation, or collectively, stock awards, all of which may be granted to employees, including officers, non-employee directors and consultants of us and our affiliates. ISOs may be granted only to employees. All other awards may be granted to employees, including officers, and to non-employee directors and consultants.

Share Reserve. The aggregate number of shares of our common stock initially reserved to be issued pursuant to stock awards under the 2015 Plan was 2,400,000 shares plus the number of shares that are Returning Shares (as defined in the 2015 Plan). Pursuant to the evergreen provision under the 2015 Plan, the number of shares of our common stock reserved for issuance under our 2015 Plan automatically increases on January 1 of each year continuing through and including January 1, 2026, to an amount equal to 20% of the fully diluted shares as of December 31 of the preceding calendar year, or a lesser number of shares determined by our board of directors. The number of shares available for issuance as of December 31, 2017 was 208,329, as of January 1, 2018 was 623,406 and as of the Record Date was 151,406. **Following the application of the "evergreen" provision on January 1, 2018 and if this Proposal 3 is approved, the number of shares reserved under the 2015 Plan will increase by 300,000 shares to a total of 3,115,077 shares (including shares subject to outstanding options). The 2015 Plan has not been amended in any other way since our initial public offering was completed in August 2016.**

The maximum number of shares of our common stock that may be issued upon the exercise of ISOs under our 2015 Plan is 4,800,000 shares. No person may be granted stock awards covering more than 1,000,000 shares of our common stock under our 2015 Plan during any calendar year pursuant to stock options, stock appreciation rights and other stock awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the fair market value on the date the stock award is granted. Additionally, no person may be granted in a calendar year a performance stock award covering more than 1,000,000 shares of our common stock or a performance cash award having a maximum value in excess of \$1,000,000. Such limitations are designed to help ensure that any deductions to which we would otherwise be entitled with respect to such awards will not be subject to the \$1,000,000 limitation on the income tax deductibility of compensation paid to any covered executive officer imposed by Section 162(m) of the Code.

If a stock award granted under the 2015 Plan expires or otherwise terminates without being exercised in full, or is settled in cash, the shares of our common stock not acquired pursuant to the stock award again will become available for subsequent issuance under the 2015 Plan. In addition, the following types of shares of our common stock under the 2015 Plan may become available for the grant of new stock awards under the 2015 Plan: (1) shares that are forfeited to or repurchased by us prior to becoming fully vested; (2) shares withheld to satisfy income or employment withholding taxes; or

(3) shares used to pay the exercise or purchase price of a stock award. Shares issued under the 2015 Plan may be previously unissued shares or reacquired shares bought by us on the open market.

Administration. Our board of directors, or a duly authorized committee thereof, has the authority to administer the 2015 Plan. Our board of directors may also delegate to one or more of our officers the authority to (1) designate employees (other than other officers) to be recipients of certain stock awards, and (2) determine the number of shares of common stock to be subject to such stock awards. Subject to the terms of the 2015 Plan, our board of directors or the authorized committee, referred to herein as the plan administrator, determines recipients, dates of grant, the numbers and types of stock awards to be granted and the terms and conditions of the stock awards, including the period of their exercisability and vesting schedule applicable to a stock award. Subject to the limitations set forth below, the plan administrator will also determine the exercise price, strike price or purchase price of awards granted and the types of consideration to be paid for the award.

The plan administrator has the authority to modify outstanding awards under our 2015 Plan. Subject to the terms of our 2015 Plan, the plan administrator has the authority to reduce the exercise, purchase or strike price of any outstanding stock award, cancel any outstanding stock award in exchange for new stock awards, cash or other consideration, or take any other action that is treated as a repricing under generally accepted accounting principles, with the consent of any adversely affected participant.

Stock Options. ISOs and NSOs are granted pursuant to stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for a stock option, within the terms and conditions of the 2015 Plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2015 Plan vest at the rate specified by the plan administrator.

The plan administrator determines the term of stock options granted under the 2015 Plan, up to a maximum of ten years. Unless the terms of an optionholder's stock option agreement provide otherwise, if an optionholder's service relationship with us, or any of our affiliates, ceases for any reason other than disability, death or cause, the optionholder may generally exercise any vested options for a period of three months following the cessation of service. The option term may be extended in the event that exercise of the option following such a termination of service is prohibited by applicable securities laws or our insider trading policy. If an optionholder's service relationship with us or any of our affiliates ceases due to disability or death, or an optionholder dies within a certain period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, options generally terminate immediately upon the termination of the individual for cause. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the plan administrator and may include (1) cash, check, bank draft or money order, (2) a broker-assisted cashless exercise, (3) the tender of shares of our common stock previously owned by the optionholder, (4) a net exercise of the option if it is an NSO, and (5) other legal consideration approved by the plan administrator.

Unless the plan administrator provides otherwise, options generally are not transferable except by will, the laws of descent and distribution, or pursuant to a domestic relations order. An optionholder may designate a beneficiary, however, who may exercise the option following the optionholder's death.

Tax Limitations On Incentive Stock Options. The aggregate fair market value, determined at the time of grant, of our common stock with respect to ISOs that are exercisable for the first time by an optionholder during any calendar year under all of our stock plans may not exceed \$100,000. Options or portions thereof that exceed such limit will generally be 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 of our affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the term of the ISO does not exceed five years from the date of grant.

Restricted Stock Awards. Restricted stock awards are granted pursuant to restricted stock award agreements adopted by the plan administrator. Restricted stock awards may be granted in consideration for (1) cash, check, bank draft or money order, (2) services rendered to us or our affiliates, or (3) any other form of legal consideration. Common stock acquired under a restricted stock award may, but need not, be subject to a share repurchase option in our favor in accordance with a vesting schedule to be determined by the plan administrator. A restricted stock award may be transferred only upon such terms and conditions as set by the plan administrator. Except as otherwise provided in the applicable award agreement, restricted stock awards that have not vested may be forfeited or repurchased by us upon the participant's cessation of continuous service for any reason. The restricted stock award may provide for the treatment of dividends otherwise payable on unvested restricted stock awards, as determined by the board of directors, in its sole discretion.

Restricted Stock Unit Awards. Restricted stock unit awards are granted pursuant to restricted stock unit award agreements adopted by the plan administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, restricted stock units that have not vested will be forfeited upon the participant's cessation of continuous service for any reason.

Stock Appreciation Rights. Stock appreciation rights are granted pursuant to stock appreciation grant agreements adopted by the plan administrator. The plan administrator determines the strike price for a stock appreciation right, which generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Upon the exercise of a stock appreciation right, we will pay the participant an amount equal to the product of (1) the excess of the per share fair market value of our common stock on the date of exercise over the strike price, multiplied by (2) the number of shares of common stock with respect to which the stock appreciation right is exercised. A stock appreciation right granted under the 2015 Plan vests at the rate specified in the stock appreciation right agreement as determined by the plan administrator.

The plan administrator determines the term of stock appreciation rights granted under the 2015 Plan, up to a maximum of ten years. Unless the terms of a participant's stock appreciation right agreement provides otherwise, if a participant's service relationship with us or any of our affiliates ceases for any reason other than cause, disability or death, the participant may generally exercise any vested stock appreciation right for a period of three months following the cessation of service. The stock appreciation right term may be further extended in the event that exercise of the stock appreciation right following such a termination of service is prohibited by applicable securities laws. If a participant's service relationship with us, or any of our affiliates, ceases due to disability or death, or a participant dies within a certain period following cessation of service, the participant or a beneficiary may generally exercise any vested stock appreciation right for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, stock appreciation rights generally terminate immediately upon the occurrence of the event giving rise to the termination of the individual for cause. In no event may a stock appreciation right be exercised beyond the expiration of its term.

Performance Awards. The 2015 Plan permits the grant of performance-based stock and cash awards that may qualify as performance-based compensation that is not subject to the \$1,000,000 limitation on the income tax deductibility of compensation paid to a covered executive officer imposed by Section 162(m) of the Code. To help assure that the compensation attributable to performance-based awards will so qualify, our compensation committee can structure such awards so that stock or cash will be issued or paid pursuant to such award only after the achievement of certain pre-established performance goals during a designated performance period.

The performance goals that may be selected include one or more of the following: (1) earnings (including earnings per share and net earnings); (2) earnings before interest, taxes and depreciation; (3) earnings before interest, taxes, depreciation and amortization; (4) earnings before interest, taxes, depreciation, amortization and legal settlements; (5) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (6) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (7) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (8) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation, other non-cash expenses and changes in deferred revenue; (9) total stockholder return; (10) return on equity or average stockholder's equity; (11) return on assets, investment or capital employed; (12) stock price; (13) margin (including gross margin); (14) income (before or after taxes); (15) operating income; (16) operating income after taxes; (17) pre-tax profit; (18) operating cash flow; (19) sales or revenue targets; (20) increases in revenue or product revenue; (21) expenses and cost reduction goals; (22) improvement in or attainment of working capital levels; (23) economic value added (or an equivalent metric); (24) market share; (25) cash flow; (26) cash flow per share; (27) cash balance; (28) cash burn; (29) cash collections; (30) share price performance; (31) debt reduction; (32) implementation or completion of projects or processes (including, without limitation, clinical trial initiation, clinical trial enrollment, clinical trial results, new and supplemental indications for existing products, regulatory filing submissions, regulatory filing acceptances, regulatory or advisory committee interactions, regulatory approvals and product supply); (33) stockholders' equity; (34) capital expenditures; (35) debt levels; (36) operating profit or net operating profit; (37) workforce diversity; (38) growth of net income or operating income; (39) billings; (40) bookings; (41) employee retention; (42) initiation of phases of clinical trials and/or studies by specific dates; (43) acquisition of new customers, including institutional accounts; (44) customer retention and/or repeat order rate; (45) number of institutional customer accounts; (46) budget management; (47) improvements in sample and test processing times; (48) regulatory milestones; (49) progress of internal research or clinical programs; (50) progress of partnered programs; (51) partner satisfaction; (52) milestones related to samples received and/or test run; (53) expansion of sales in additional geographies or markets; (54) research progress, including the development of programs; (55) patient samples processed and billed; (56) sample processing operating metrics (including, without limitation, failure rate maximums and reduction of repeat rates; (57) strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property); and (58) to the extent that an award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by our board of directors.

The 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 (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 goals are established, we will appropriately make adjustments in the method of calculating the attainment of performance goals as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects

of any "extraordinary items" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by us achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock-based compensation and the award of bonuses under our bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; (12) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item; and (13) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the FDA or any other regulatory body. In addition, we retain the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of the performance goals and to define the manner of calculating the performance criteria we select to use for such performance period. The performance goals may differ from participant to participant and from award to award.

Other Stock Awards. The plan administrator may grant other awards based in whole or in part by reference to our common stock. The plan administrator will set the number of shares under the stock award and all other terms and conditions of such awards.

Changes to Capital Structure. In the event that there is a specified type of change in our capital structure, such as a stock split or recapitalization, appropriate adjustments will be made to (1) the class and maximum number of shares reserved for issuance under the 2015 Plan, (2) the class and maximum number of shares by which the share reserve may increase automatically each year, (3) the class and maximum number of shares that may be issued upon the exercise of ISOs, (4) the class and maximum number of shares subject to stock awards that can be granted in a calendar year (as established under the 2015 Plan pursuant to Section 162(m) of the Code) and (5) the class and number of shares and exercise price, strike price, or purchase price, if applicable, of all outstanding stock awards.

Corporate Transactions. In the event of certain specified significant corporate transactions, the plan administrator has the discretion to take any of the following actions with respect to stock awards:

- arrange for the assumption, continuation or substitution of a stock award by a surviving or acquiring entity or parent company;
- arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or acquiring entity or parent company;
- accelerate the vesting of the stock award and provide for its termination prior to the effective time of the corporate transaction;
- arrange for the lapse of any reacquisition or repurchase right held by us;
- cancel or arrange for the cancellation of the stock award in exchange for such cash consideration, if any, as our board of directors may deem appropriate; or
- make a payment equal to the excess of (1) the value of the property the participant would have received upon exercise of the stock award over (2) the exercise price otherwise payable in connection with the stock award.

Our plan administrator is not obligated to treat all stock awards, even those that are of the same type, in the same manner.

Under the 2015 Plan, a corporate transaction is generally the consummation of (1) a sale or other disposition of all or substantially all of our assets, (2) a sale or other disposition of at least 90% of our outstanding securities, (3) a merger, consolidation or similar transaction following which we are not the surviving corporation, or (4) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

Change of Control. The plan administrator may provide and has provided, in individual award agreements or in any other written agreement between a participant and us, that the stock award will be subject to additional acceleration of vesting and exercisability in the event of a change of control. Under the 2015 Plan, a change of control is generally (1) the acquisition by a person or entity of more than 50% of our combined voting power other than by merger, consolidation or similar transaction; (2) a consummated merger, consolidation or similar transaction immediately after which our stockholders cease to own more than 50% of the combined voting power of the surviving entity; (3) a consummated sale, lease or exclusive license or other disposition of all or substantially of our assets; or (4) the replacement of a majority of the directors who were on the board of directors at the time the 2015 Plan became effective, or the Incumbent Board, by directors who were not elected to the board by a majority of the directors who were sitting on the Incumbent Board.

Amendment and Termination. Our board of directors has the authority to amend, suspend, or terminate our 2015 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. No ISOs may be granted after the tenth anniversary of the date our board of directors adopted our 2015 Plan.

U.S. Federal Income Tax Consequences

The following paragraphs are a summary of the general federal income tax consequences to U.S. taxpayers and the Company of awards granted under the 2015 Plan. Tax consequences for any particular individual may be different.

Incentive Stock Options. A participant recognizes no taxable income as the result of the grant or exercise of an incentive stock option qualifying under Section 422 of the Internal Revenue Code (unless the participant is subject to the alternative minimum tax). If the participant exercises the option and then later sells or otherwise disposes of the shares acquired through the exercise of the option after both the two-year anniversary of the grant date and the one-year anniversary of the exercise date, the difference between the sale price and the exercise price will be taxed as capital gain or loss. If the participant exercises the option and then later sells or otherwise disposes of the shares on or before the two- or one-year anniversaries described above (a "disqualifying disposition"), he or she generally will have ordinary income at the time of the sale equal to the fair market value of the Shares on the exercise date (or the sale price, if less) minus the exercise price of the option.

Nonstatutory Stock Options. A participant generally recognizes no taxable income on the date of grant of a nonstatutory stock option with an exercise price equal to the fair market value of the underlying stock on the date of grant. Upon the exercise of a nonstatutory stock option, the participant generally will recognize ordinary income equal to the excess of the fair market value of the Shares on the exercise date over the exercise price of the option. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Upon the sale of Shares acquired through the exercise of a nonstatutory stock option, any subsequent gain or loss (generally based on the difference between the sale price and the fair market value on the exercise date) will be treated as long-term or short-term capital gain or loss, depending on how long the shares were held by the participant.

Stock Appreciation Rights. A participant generally recognizes no taxable income on the date of grant of a stock appreciation right with an exercise price equal to the fair market value of the underlying stock on the date of grant. Upon exercise of the stock appreciation right, the participant generally will be required to include as ordinary income an amount equal to the sum of the amount of any cash received and the fair market value of any shares received upon the exercise. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Upon the sale of shares acquired by an exercise of the stock appreciation right, any gain or loss (generally based on the difference between the sale price and the fair market value on the exercise date) will be treated as long-term or short-term capital gain or loss, depending on how long the shares were held by the participant.

Restricted Stock, Restricted Stock Units, Performance Awards, and Performance Shares. A participant generally will not have taxable income at the time an award of restricted stock, restricted stock units, performance shares, or performance units is granted. Instead, he or she generally will recognize ordinary income in the first taxable year in which his or her interest in the shares underlying the award has been transferred to him or her and becomes either (i) freely transferable, or (ii) no longer subject to substantial risk of forfeiture. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. However, the recipient of a restricted stock award may elect to recognize income at the time he or she receives the award in an amount equal to the fair market value of the shares underlying the award (less any cash paid for the shares) on the date the award is granted.

Section 409A. Section 409A of the Code ("**Section 409A**") provides certain requirements for non-qualified deferred compensation arrangements with respect to an individual's deferral and distribution elections and permissible distribution events. Awards granted under the Plans with a deferral feature will be subject to the requirements of Section 409A. If an award is subject to and fails to satisfy the requirements of Section 409A, the recipient of that award may recognize ordinary income on the amounts deferred under the award, to the extent vested, which may be prior to when the compensation is actually or constructively received. Also, if an award that is subject to Section 409A fails to comply with Section 409A's provisions, Section 409A imposes an additional 20% tax on compensation recognized as ordinary income, as well as interest on such deferred compensation.

Tax Effect for the Company. We generally will be entitled to a tax deduction in connection with an award under the 2015 Plan in an amount equal to the ordinary income realized by a participant and at the time the participant recognizes such income (for example, the exercise of a nonqualified stock option). However, special rules limit the deductibility of compensation paid to our chief executive officer and other "covered employees" as determined under Section 162(m) of the Code and applicable guidance. Under Section 162(m), the annual compensation paid to any of these specified executives will be deductible only to the extent that it does not exceed \$1,000,000. However, with respect to grandfathered arrangements, we can preserve the deductibility of certain compensation in excess of \$1,000,000 if the conditions of Section 162(m) are met. These conditions include (among others) stockholder approval of the 2015 Plan and its material terms, setting certain limits on the number of shares subject to awards and, for awards other than options and stock appreciation rights, establishing performance criteria that must be met before the award actually will vest or be paid. The 2015 Plan has been designed to permit (but not require) the administrator to grant awards that are intended to qualify as performance-based for purposes of satisfying the conditions of Section 162(m). As a result of the Tax Cuts and Jobs Act (the Act), Section 162(m) has changed significantly. Effective for taxable years after December 31, 2017, (i) the performance-based exemption was eliminated such that all compensation paid in excess of \$1 million is non-deductible and (ii) the covered employee definition was changed to include any individual who served as the chief executive officer or chief financial officer and the three other most highly compensated officers (other than the chief executive officer and chief financial officer) for such taxable year. Under the new rules, once an individual becomes a covered

employee for any taxable year beginning after December 31, 2016, he or she will remain a covered employee for all future years. The Act includes a transition rule such that the changes to Section 162(m) will not apply to compensation that is payable under a binding written contract that was in effect on November 2, 2017 and that has not been subsequently materially modified.

THE FOREGOING IS ONLY A SUMMARY OF THE TAX EFFECT OF FEDERAL INCOME TAXATION UPON PARTICIPANTS AND THE COMPANY WITH RESPECT TO THE GRANT AND VESTING OR EXERCISE OF AWARDS UNDER THE 2015 PLAN. IT DOES NOT PURPORT TO BE COMPLETE, AND DOES NOT DISCUSS THE TAX CONSEQUENCES OF A SERVICE PROVIDER'S DEATH OR THE PROVISIONS OF THE INCOME TAX LAWS OF ANY MUNICIPALITY, STATE, OR NON-U.S. COUNTRY TO WHICH THE SERVICE PROVIDER MAY BE SUBJECT.

Plan Benefits

Approximately 150,000 of the 300,000 shares subject to the amendment are expected to be required for the grant of options to a permanent replacement to our former President and Chief Executive Officer, when one is named. Other than as provided in the prior sentence, the future grant of awards under the 2015 Plan to our executive officers, directors and employees is not determinable in advance because these grants are subject to the discretion of the compensation committee or our board of directors.

The following table sets forth the aggregate number of shares of common stock subject to options granted under the 2015 Plan during the last fiscal year and the average per share exercise price of such options for each of our named executive officers, our executive officers as a group, our non-employee directors as a group and our employees who are not executive officers as a group.

| <u>Name of Individual or Group</u> | <u>Number of Options Granted (#)(1)</u> | <u>Average Exercise Price per Share (\$)</u> |
|---|---|--|
| Dr. Steven Gullans, Interim President and Chief Executive Officer | 60,000 | 10.26 |
| Mina Sooch, Former President and Chief Executive Officer | — | — |
| Charles L. Bisgaier, Ph.D., Chairman and Chief Scientific Officer | — | — |
| Lee Golden, Ph.D., Chief Medical Officer | 20,000 | 11.15 |
| All executive officers as a group | 80,000 | 10.48 |
| All directors who are not executive officers as a group | — | — |
| All employees who are not executive officers as a group | 70,000 | 13.39 |

- (1) The options to purchase common stock issued to our executive officers, directors and employees in January 2018 are not reflected in the above table.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" APPROVAL OF PROPOSAL NO. 3.

REPORT OF THE AUDIT COMMITTEE

The information contained in the following report of the audit committee is not considered to be "soliciting material," "filed" or incorporated by reference in any past or future filing by us under the Exchange Act or the Securities Act unless and only to the extent that we specifically incorporate it by reference.

The audit committee has reviewed and discussed with our management and Ernst & Young our audited financial statements as of and for the year ended December 31, 2017. The audit committee has also discussed with Ernst & Young the matters required to be discussed by Auditing Standard No. 1301 adopted by the Public Company Accounting Oversight Board (United States) regarding "*Communication with Audit Committees*."

The audit committee has received and reviewed the written disclosures and the letter from Ernst & Young required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the audit committee concerning independence, and has discussed with Ernst & Young its independence.

Based on the review and discussions referred to above, the audit committee recommended to our Board that the audited financial statements as of and for the year ended December 31, 2017 be included in our annual report on Form 10-K for the year ended December 31, 2017 for filing with the Securities and Exchange Commission.

Audit Committee

Andrew Sassine (Chair)

Pedro Lichtinger

Kenneth Kousky

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding beneficial ownership of our capital stock as of the Record Date, by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our current executive officers and directors as a group.

The table lists applicable percentage ownership based on 14,232,313 shares of common stock outstanding as of the Record Date. In addition, the rules include shares of our common stock issuable pursuant to the exercise of stock options and warrants that are either immediately exercisable or exercisable within 60 days of the Record Date. These shares are deemed to be outstanding and beneficially owned by the person holding those options for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws. Except as otherwise noted below, the address for each person or entity listed in the table is c/o Gemphire Therapeutics Inc., 17199 N. Laurel Park Drive, Suite 401, Livonia, Michigan 48152.

| NAME AND ADDRESS OF BENEFICIAL OWNER | SHARES BENEFICIALLY OWNED | |
|---|---------------------------|---------|
| | NUMBER | PERCENT |
| Greater than 5% stockholders | | |
| Cormorant Asset Management, LLC(1) | 839,599 | 5.9 |
| Excel Ventures II GP, LLC(2) | 969,851 | 6.8 |
| Directors and Named Executive Officers | | |
| Charles L. Bisgaier, Ph.D.(3) | 1,419,987 | 9.9 |
| Steven Gullans, Ph.D.(4) | 1,076,101 | 7.5 |
| Mina Sooch(5) | 1,188,383 | 8.1 |
| Lee Golden, Ph.D.(6) | 72,917 | * |
| P. Kent Hawryluk(7) | 162,551 | 1.1 |
| Kenneth Kousky(8) | 49,801 | * |
| Pedro Lichtinger(9) | 129,665 | * |
| Andrew Sassine(10) | 214,016 | 1.5 |
| All current executive officers and directors as a group (9 persons) | 3,409,998 | 22.7 |

* Represents beneficial ownership of less than one percent.

(1) Represents (i) 800,000 shares of common stock beneficially owned by Cormorant Asset Management, LLC ("Cormorant") and certain of its affiliates and (ii) warrants to purchase 39,599 shares of common stock, as reported on the Schedule 13G/A filed with the SEC on February 14, 2018. The address for Cormorant is 200 Clarendon Street, 52nd Floor, Boston, MA 02116.

- (2) Represents (i) 930,252 shares of common stock beneficially owned by Excel Ventures II GP, LLC ("Excel") and certain of its affiliates and (ii) warrants to purchase 39,599 shares of common stock, as reported on the Schedule 13G/A filed with the SEC on February 13, 2018 and the Form 4 filed by Dr. Gullans on February 12, 2018. The address for Excel is 800 Boylston Street Suite 2825, Boston, MA 02199.
- (3) Represents (a) 1,248,914 shares of common stock held by Dr. Bisgaier, (b) 69,625 shares underlying options to purchase common stock that are exercisable within 60 days of the Record Date, (c) 82,220 shares of common stock held by The Charles L. Bisgaier Trust dated November 8, 2000, of which Dr. Bisgaier is the trustee, and (d) 19,228 shares of common stock held by Bisgaier Family, LLC, of which Dr. Bisgaier is a manager.
- (4) Represents (a) 106,250 shares underlying options to purchase common stock that are exercisable within 60 days of the Record Date and (b) 969,851 shares of common stock or shares underlying warrants as described in note (2) above beneficially owned by Excel, of which Dr. Gullans is the Manager. Dr. Gullans may be deemed to have voting and investment power over the shares owned by Excel.
- (5) Ms. Sooch's employment with the Company terminated as of May 23, 2017. Represents (a) 668,732 shares of common stock held by Ms. Sooch, (b) 455,220 shares underlying options to purchase common stock that are exercisable within 60 days of the Record Date, (c) 39,431 shares of common stock held by the Arvinder S. Sooch Trust dated September 20, 2006, of which Ms. Sooch's spouse is the trustee and (d) 25,000 shares of common stock held in a grantor retained annuity trust. Ms. Sooch's beneficial ownership presented herein is based on Company records as of May 2017.
- (6) Represents 72,917 shares underlying options to purchase common stock that are exercisable within 60 days of the Record Date.
- (7) Represents (a) 32,062 shares of common stock held by P. Kent Hawryluk, (b) 29,850 shares underlying options to purchase common stock that are exercisable within 60 days of the Record Date, (c) 81,889 shares of common stock held by the P. Kent Hawryluk Revocable Trust, of which Mr. Hawryluk is the trustee and (d) 18,750 shares underlying warrants to purchase common stock that are exercisable within 60 days of the Record Date held by the P. Kent Hawryluk Revocable Trust, of which Mr. Hawryluk is the trustee.
- (8) Represents (a) 11,935 shares of common stock held by Mr. Kousky, and (b) 37,866 shares underlying options to purchase common stock exercisable within 60 days of the Record Date.
- (9) Represents (a) 59,833 shares of common stock held by Mr. Lichtinger, (b) 61,912 shares underlying options to purchase common stock that are exercisable within 60 days of the Record Date and (c) 7,920 shares underlying warrants to purchase common stock that are exercisable within 60 days of the Record Date.
- (10) Represents (a) 136,264 shares of common stock held by Mr. Sassine, (b) 61,912 shares underlying options to purchase common stock that are exercisable within 60 days of the Record Date and (c) 15,840 shares underlying warrants to purchase common stock that are exercisable within 60 days of the Record Date.

EXECUTIVE OFFICERS

The following table provides information regarding our executive officers as of the Record Date:

| NAME | AGE | POSITION(S) |
|-------------------------|------------|---|
| Dr. Steven Gullans | 65 | Interim President, Chief Executive Officer and Director |
| Jeffrey S. Mathiesen | 57 | Chief Financial Officer and Secretary |
| Dr. Charles L. Bisgaier | 64 | Chief Scientific Officer and Chairman of the Board |
| Dr. Lee Golden | 50 | Chief Medical Officer |
| Seth Reno | 51 | Chief Commercial Officer |

See "Proposal No. 1—Election of Class II Directors" for biographical and other information regarding Dr. Steven Gullans and Dr. Charles L. Bisgaier.

Jeffrey S. Mathiesen has served as our Chief Financial Officer since September 2015 and as a consultant to us from August 2015 until September 2015. Prior to joining us, Mr. Mathiesen served as Chief Financial Officer of Sunshine Heart, Inc., a publicly traded medical device company, from March 2011 to January 2015. From December 2005 to April 2010, Mr. Mathiesen served as Vice President and Chief Financial Officer of Zareba Systems, Inc., a manufacturer and marketer of medical products, perimeter fencing and security systems, which was purchased by Woodstream Corporation in April 2010. Mr. Mathiesen has held executive positions with publicly traded companies dating back to 1993, including vice president and chief financial officer positions. Mr. Mathiesen also serves as a director and audit committee chairman of Sun BioPharma, Inc., a publicly traded biopharmaceutical company that develops therapies for pancreatic diseases, and NeuroOne Medical Technologies Corporation, a publicly traded medical device company. Mr. Mathiesen received a B.S. in Accounting from the University of South Dakota and is also a Certified Public Accountant.

Dr. Lee Golden joined Gemphire in October 2016 as the Chief Medical Officer. In this role he oversees all clinical development, clinical operations and clinical regulatory activities of the Company. Prior to joining us from July 2011 to October 2016, Dr. Golden was the Therapeutic Area Head for CV, Pulmonary and CNS at Mesoblast, Ltd., a global regenerative medicine company. He also served as Therapeutic Area Head for Cardiovascular and Blood Disorders at Eisai Inc., a global pharmaceutical company from November 2009 to July 2011. From January, 2005 to March, 2008 he served as the Senior Director, US Medical at Actelion Pharmaceuticals US, Inc., a global biotech company, and from October 2001 to January 2005 he was a Medical Director and Team Leader in the US Cardiovascular and Metabolic Group at Pfizer. He received a B.S. in Physiological Psychology from University of Michigan, Ann Arbor, MI and earned his M.D. degree from New York University School of Medicine. After his Internal Medicine Residency at New York University Medical Center, he completed fellowships in cardiology at University of Miami Health Center and interventional cardiology at George Washington University Hospital. While at George Washington University Hospital, Dr. Golden also served as an Adjunct Instructor.

Seth Reno has served as our Chief Commercial Officer since August 2015. Prior to joining us, he served in several commercial roles including Head of Commercial Operations for Medimmune, LLC, a biologics company, from June 2010 to April 2015. From April 2001 to June 2010, Mr. Reno worked at AstraZeneca, a public biopharmaceutical company, in a number of roles, including in the sales, commercial operations, managed markets and brand team spaces. Prior to joining AstraZeneca in 2001, Mr. Reno spent 11 years at Wyeth Pharmaceuticals, Inc., a pharmaceutical company, in commercial operations and sales account management. Mr. Reno holds a B.S. in human resources from the University of Delaware and an M.B.A. from Strayer University.

EXECUTIVE COMPENSATION

Executive Officer Compensation

The following tables and accompanying narrative disclosure discuss the compensation awarded to, earned by, or paid to:

- Steven Gullans, Ph.D., our Interim President and Chief Executive Officer;
- Mina Sooch, our former President and Chief Executive Officer;
- Charles L. Bisgaier, Ph.D., our Chief Scientific Officer and Chairman of our Board of Directors; and
- Lee Golden, Ph.D, our Chief Medical Officer.

We refer to these four executive officers as the "named executive officers."

Summary Compensation Table for 2017

The following table presents summary information regarding the total compensation for services rendered in all capacities that was earned by our named executive officers during the fiscal years ended December 31, 2017 and 2016.

| NAME AND PRINCIPAL POSITION | YEAR | SALARY (\$) | BONUS (\$) | OPTION AWARDS \$(1) | NON-EQUITY INCENTIVE PLAN COMPENSATION (\$) | ALL OTHER COMPENSATION \$(2) | TOTAL (\$) |
|--|------|-------------|------------|---------------------|---|------------------------------|------------|
| Steven Gullans, Ph.D.(3) <i>Interim President and Chief Executive Officer</i> | 2017 | 30,376 | — | 353,264 | — | 23,575 | 407,215 |
| | 2016 | — | — | 379,062 | — | 23,831 | 402,893 |
| Mina Sooch(4) <i>Former President and Chief Executive Officer</i> | 2017 | 177,823 | — | — | — | 550,107 | 727,930 |
| | 2016 | 380,645 | 102,500 | 3,790,624 | 159,375 | 226 | 4,433,370 |
| Charles L. Bisgaier, Ph.D. <i>Chief Scientific Officer</i> | 2017 | 330,000 | 30,000 | — | — | 258 | 360,258 |
| | 2016 | 300,000 | 54,000 | 947,656 | 90,000 | 97 | 1,391,753 |
| Lee Golden, Ph.D.(5) <i>Chief Medical Officer</i> | 2017 | 365,000 | 39,000 | 133,870 | — | 258 | 538,128 |
| | 2016 | 83,737 | 20,000 | 873,212 | 26,250 | 93 | 1,003,292 |

- (1) The amounts reported do not reflect the amounts actually received by our named executive officers. Instead, these amounts reflect the aggregate grant date fair value of the stock options granted to our named executive officers during the fiscal years ended December 31, 2016 and 2017, as computed in accordance with FASB Accounting Standards Codification Topic 718 (ASC 718). Assumptions used in the calculation of these amounts are included in Note 9 to the financial statements included in our annual report on Form 10-K for the year ended December 31, 2017. As required by SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions.
- (2) Unless otherwise noted, amounts reflect the dollar value of group life insurance premiums paid during 2016 and 2017 with respect to life insurance for the named executive officer.
- (3) Amounts reported for 2017 reflect that Dr. Gullans's employment with the Company commenced as of May 23, 2017. Prior to his appointment as Interim President and Chief Executive Officer, Dr. Gullans was a non-employee director. Dr. Gullans's cash compensation in 2017 did not change as a result of his appointment as our Interim President and Chief Executive Officer. As a named executive officer of the Company, compensation paid to Dr. Gullans for the entire 2017 and 2016 fiscal years is fully reflected in this table.

"Salary" reflects the amount paid to Dr. Gullans following his appointment as Interim President and Chief Executive Officer. "All Other Compensation" reflects the amount paid to Dr. Gullans prior to such appointment as cash fees for his service as a non-employee director. "Option Awards" reflects (i) for 2017, the grant of an option to purchase 60,000 shares of our common stock in connection with such appointment

as our Interim President and Chief Executive Officer and (ii) for 2016, the grant of an option to purchase 60,000 shares of our common stock, which was granted to all non-employee directors in connection with our initial public offering.

- (4) Amounts reported for 2017 reflect that Ms. Sooch's employment with the Company terminated as of May 23, 2017. In addition to group life insurance premiums described in footnote 2, "All Other Compensation" for 2017 includes the following amounts paid or accrued to Ms. Sooch in connection with her separation from the Company: (i) a one-time, lump sum of \$534,375, which includes Ms. Sooch's \$450,000 annual base salary plus a \$84,375 pro rata bonus for 2017 and (ii) \$15,400 paid during 2017 for continued health insurance coverage.
- (5) Amounts reported for 2016 reflect that Dr. Golden's employment with the Company commenced as of October 5, 2016. The amount reported under "Bonus" for 2016 represents a signing bonus.

2017 Compensation Determinations

The compensation program for our named executive officers for 2017 had three components: base salary, annual cash bonus and stock option grants. The below disclosure and tables explain each component of compensation in further detail. The compensation of our Interim President and Chief Executive Officer, Dr. Gullans, is not included in the Base Salary and Cash Bonus tables below since Dr. Gullans's compensation was determined separately pursuant to his offer letter, which is described below under "Agreements with Our Named Executive Officers—Offer Letter with Dr. Gullans" and not as part of our compensation committee's compensation determinations for our other executive officers for fiscal 2017.

Base Salary. Taking into account the recommendations of the independent compensation consultant, Haigh & Company, engaged by our compensation committee, our compensation committee determined to increase base salaries for our named executive officers by 3% to 10% for 2017 depending on how each named executive officer's base salary for 2016 compared relative to peer companies.

The following table sets forth the base salaries approved for the named executive officers in 2016 and 2017 and the percentage by which such base salaries increased in 2017 over the respective 2016 base salary amounts.

| <u>Name</u> | <u>2016 Base Salary (\$)</u> | <u>2017 Base Salary (\$)</u> | <u>Increase (%)</u> |
|----------------------------|------------------------------|------------------------------|---------------------|
| Mina Sooch | 425,000 | 450,000 | 5.9 |
| Charles L. Bisgaier, Ph.D. | 300,000 | 330,000 | 10.0 |
| Lee Golden, Ph.D. | 350,000 | 365,000 | 4.3 |

Pursuant to his offer letter, Dr. Gullans's cash compensation for 2017 consisted of a continuation of the compensation he received as a member of the Board prior to his appointment as Interim President and Chief Executive Officer.

Cash Bonus. In 2017, each of our named executive officers had a target bonus, set forth as a percentage of annual base salary. The compensation committee, considering the recommendations of Haigh & Company, did not make any changes to the target bonuses of the named executive officers, as a percentage of base salary, for 2017; however, the base salary increases described above resulted in the same increase in the respective cash value of each such officer's target annual bonus. The payment of bonuses is in the compensation committee's discretion.

Set forth below are the target annual bonuses in 2017 (as a dollar amount and as a percentage of base salary) and the earned annual bonuses (as a dollar amount and as a percentage of target) in 2017 for the named executive officers.

| <u>Name</u> | <u>2017 Target Annual Bonus (%)</u> | <u>2017 Target Annual Bonus (\$)</u> | <u>2017 Earned Annual Bonus (\$)</u> | <u>2017 Earned Annual Bonus (%)</u> |
|----------------------------|---|--|--|---|
| Mina Sooch | 50 | 225,000 | —(1) | —(1) |
| Charles L. Bisgaier, Ph.D. | 40 | 132,000 | 30,000 | 23 |
| Lee Golden, Ph.D. | 40 | 146,000 | 39,000 | 27 |

- (1) Ms. Sooch's employment with the Company terminated May 23, 2017. She received a pro rata portion of her target bonus for 2017 in connection with her separation from the Company. See the Summary Compensation Table above.

Equity Grants. In 2017, considering the recommendations of Haigh & Company, the compensation committee did not make annual stock option grants to any of our named executive officers with the exception of the following:

- on March 28, 2017, Dr. Lee Golden was granted an option to purchase up to 20,000 shares of our common stock with a grant date fair value of \$133,870, vesting in a series of 48 equal monthly installments on the last day of each month commencing on the grant date, subject to Dr. Golden's continuous service, and subject to acceleration upon a change in control; and
- pursuant to the offer letter entered into with Dr. Gullans described below, on May 30, 2017, Dr. Gullans was granted an option to purchase up to 60,000 shares of our common stock with a grant date fair value of \$353,264, vesting in a series of 12 equal monthly installments commencing on the grant date, subject to acceleration upon the appointment of a replacement Chief Executive Officer or upon a change in control.

Agreements with Our Named Executive Officers

We have entered into written employment agreements with each of our executive officers. For a discussion of the severance pay and other benefits to be provided in connection with a termination of employment and/or a change in control under the arrangements with our named executive officers, please see "—Potential Payments Upon Termination or Change in Control" below.

Each of our named executive officers has also executed our standard form of confidential information and invention assignment agreement.

Agreements with Named Executive Officers

Employment Agreements with Ms. Sooch and Dr. Bisgaier. We entered into new employment agreements with our executive officers, including Ms. Sooch and Dr. Bisgaier, two of our named executive officers, effective on the closing of our initial public offering that supersede the prior agreements and govern the terms of their employment with us (the "Amended Employment Agreements"). The initial term (the "Initial Term") of each Amended Employment Agreement is from the effective date, August 8, 2016, through the third anniversary of the effective date and automatically renews for an additional one year period at the end of the Initial Term and each anniversary thereafter, provided that at least 90 days prior to the expiration of the Initial Term or any renewal term the board does not notify such officer of its intention not to renew the employment period.

Each Amended Employment Agreement also entitles such officer to, among other benefits, the following compensation: (i) eligibility to receive an annual cash bonus of up to a percentage of such officer's annual base salary as specified in his or her individual Amended Employment Agreement at

the sole discretion of the board and as determined by the Compensation Committee commensurate with the policies and practices applicable to other senior executive officers of the Company; (ii) an opportunity to participate in any stock option, performance share, performance unit or other equity based long-term incentive compensation plan commensurate with the terms and conditions applicable to other senior executive officers (the Plans); and (iii) participation in welfare benefit plans, practices, policies and programs provided by the Company and its affiliated companies (including, without limitation, medical, prescription, dental, disability, employee life, group life, accidental death and travel accident insurance plans and programs) to the extent available to our other senior executive officers. Each such officer is entitled to retain all shares of our common stock and stock options he or she held as of the effective date. To the extent Dr. Bisgaier remains employed as of the closing date of a change in control, his stock options will fully vest, effective as of the closing date of the change in control. Dr. Bisgaier is additionally entitled to certain severance benefits pursuant to his employment agreement, the terms of which are described below under "—Potential Payments Upon Termination or Change in Control."

Separation and Release Agreement with Ms. Sooch. On May 30, 2017, we entered into a separation and release agreement with Ms. Sooch effective as of May 23, 2017 (the "Separation Agreement"). In connection with her departure from the Company, Ms. Sooch received certain benefits that she was entitled to receive under her Amended Employment Agreement described above in connection with Ms. Sooch exercising her termination rights for good reason. Accordingly, under the Separation Agreement, the Company agreed (1) to pay Ms. Sooch a lump sum equal to \$534,375, which includes Ms. Sooch's \$450,000 annual base salary plus a \$84,375 pro rata bonus for 2017, (2) that all of Ms. Sooch's outstanding stock options will (a) vest as if Ms. Sooch was employed by the Company through August 4, 2019 and (b) remain exercisable until the final termination date of such option awards under the applicable award agreement, (3) to pay \$2,200, the monthly cost of premiums for continued health insurance coverage during the twelve-month period following Ms. Sooch's separation from the Company, provided Ms. Sooch does not qualify for health care coverage from another employer during that period and (4) to reimburse Ms. Sooch for reasonable expenses incurred through the separation date that are reviewed and approved according to Company policy. Through the end of the period that is two years from the separation date, Ms. Sooch has agreed not to engage in certain customary standstill restrictions.

Offer Letter with Dr. Gullans. On June 8, 2017, we entered into an offer letter with Dr. Gullans as Interim President and Chief Executive Officer, effective May 23, 2017. On May 30, 2017, our compensation committee granted Dr. Gullans an option to purchase 60,000 shares of our common stock vesting monthly in equal increments over a 12 month period, subject to acceleration upon the appointment of a replacement Chief Executive Officer or upon a change in control, under our 2015 Plan. The offer letter provided that Dr. Gullans will continue to receive the compensation he receives as a director of the Company. Dr. Gullans is able to participate in the benefit programs and arrangements to the extent available to Company employees. Dr. Gullans also executed our employee proprietary information, inventions assignment and non-competition agreement, which provides for confidentiality and non-compete and non-solicitation provisions, the latter for one year after termination of employment.

Employment Agreement with Dr. Golden. We entered into an employment agreement with Dr. Golden in October 2016. The initial term is from the effective date through the third anniversary of the effective date and automatically renews for an additional one year period at the end of the initial term and each anniversary thereafter, provided that at least 90 days prior to the expiration of the initial term or any renewal term the board does not notify Dr. Golden of its intention not to renew the employment period.

Dr. Golden's employment agreement entitles him to, among other benefits, the following compensation: (i) eligibility to receive an annual cash bonus of up to 40% of his annual base salary as determined by the compensation committee commensurate with the policies and practices applicable to other senior executive officers of the Company; (ii) an opportunity to participate in any stock option, performance share, performance unit or other equity based long-term incentive compensation plan commensurate with the terms and conditions applicable to other senior executive officers; and (iii) participation in welfare benefit plans, practices, policies and programs provided by the Company and its affiliated companies (including, without limitation, medical, prescription, dental, disability, employee life, group life, accidental death and travel accident insurance plans and programs) to the extent available to our other senior executive officers. In connection with his hiring at Chief Medical Officer, on October 5, 2016, our compensation committee granted Dr. Golden an option to purchase 126,000 shares of our common stock vesting as follows: 12,000 shares underlying the option vested immediately on October 5, 2016, one-fourth of the remaining shares vested on October 31, 2017 and the balance of the shares vest in a series of 36 successive equal monthly installments measured from October 31, 2017, subject to acceleration upon a change in control. Dr. Golden is additionally entitled to certain severance benefits pursuant to his employment agreement, the terms of which are described below under "—Potential Payments Upon Termination or Change in Control."

Potential Payments Upon Termination or Change in Control

Dr. Gullans. The offer letter between the Company and Dr. Gullans pursuant to which Dr. Gullans acts as our Interim President and Chief Executive Officer does not provide for payments upon termination or change in control but does provide that his service as Interim President and Chief Executive Officer will terminate upon the hiring of a replacement President and Chief Executive Officer and, upon the hiring of such replacement, for accelerated vesting of the option granted to Dr. Gullans pursuant to such offer letter. The award agreements for the options granted to Dr. Gullans also contain terms providing for accelerated vesting of such stock options upon a change in control.

Ms. Sooch. In connection with Ms. Sooch's termination in May 2017, the Board unanimously approved a Separation Agreement, under which Ms. Sooch received a severance payment. Ms. Sooch's Separation Agreement is described above under "—Employment Agreements with Named Executive Officers—Separation and Release Agreement with Ms. Sooch".

Dr. Bisgaier and Dr. Golden. Pursuant to their employment agreements, regardless of the manner in which Dr. Bisgaier or Dr. Golden's service terminates, such named executive officer is entitled to receive amounts earned during his term of service, including salary and other benefits. In addition, each of our named executive officers is eligible to receive certain benefits pursuant to his or her agreement with us described above under "—Agreements with our Named Executive Officers."

The Company is permitted to terminate the employment of Dr. Bisgaier or Dr. Golden for the following reasons: (1) death or disability, (2) Termination for Cause (as defined below) or (3) for any other reason or no reason.

Each such officer is permitted Termination for Good Reason (as defined below) of such officer's employment. In addition, each such officer may terminate his or her employment upon written notice to the Company 30 days prior to the effective date of such termination.

In the event of such officer's death during the employment period or a termination due to such officer's disability, such officer or his or her beneficiaries or legal representatives shall be provided the sum of (a) any annual base salary earned, but unpaid, for services rendered to the Company on or prior to the date on which the employment period ends and (b) the bonus that would have been payable to such officer subject to any performance conditions and (c) certain other benefits provided for in the employment agreement (the "Unconditional Entitlements").

In the event of such officer's Termination for Cause by the Company or the termination of such officer's employment as a result of such officer's resignation other than a Termination for Good Reason, such officer shall be provided the Unconditional Entitlements.

In the event of a Termination for Good Reason by such officer or the exercise by the Company of its termination rights to terminate such officer other than by Termination for Cause, death or disability, such officer shall be provided the Unconditional Entitlements and, subject to such officer signing and delivering to the Company and not revoking a general release of claims in favor of the Company and certain related parties, the Company shall provide such officer a severance amount equal to (i) 0.5-1.0 (which ratio varies based on the negotiated terms in the agreement of such officer) times such officer's annual base salary as of the termination date less the Non-Compete Amount (if applicable) (as defined in his or her employment agreement) and (ii) a prorated cash bonus for the year as well as continued medical coverage for 12 months following such termination, immediate vesting of all stock options, which become immediately exercisable in accordance with the stock option award documents, subject to the same conditions that would be applicable to such officer if he or she remained employed through the end of the employment period and continued vesting of equity awards in accordance with the terms of the award agreements (the "Conditional Benefits").

If, within two years after a change in control, the Company terminates such officer other than due to such officer's death or disability or a Termination for Cause, or such officer effects a Termination for Good Reason, the Company will pay to such officer, in a lump sum in cash within 30 days after the termination date, the aggregate of: (i) the Unconditional Entitlements; and (ii) the amount equal to the product of 1.0-1.5 (which ratio varies based on the negotiated terms in the agreement of such officer) times the sum of (y) such officer's annual base salary, and (z) the greater of the target bonus for the then current fiscal year under the Plans or any successor annual bonus plan and the average annual bonus paid to or for the benefit of such officer for the prior three full years (or any shorter period during which such officer had been employed by the Company). In addition, the Company shall provide such officer the Conditional Benefits minus such officer's severance amount. The award agreements for the options granted to our executive officers, including Dr. Bisgaier and Dr. Golden, also contain terms providing for accelerated vesting of stock options upon a change in control.

Under the employment agreements, "Termination for Cause" means a termination of the officer's employment by the Company due to (A) an intentional act or acts of dishonesty undertaken by the officer and intended to result in substantial gain or personal enrichment to the officer at the expense of the Company, (B) unlawful conduct or gross misconduct that is willful and deliberate on the officer's part and that, in either event, is materially injurious to the Company, (C) the conviction of the officer of, or the officer's entry of a no contest or nolo contendere plea to, a felony, (D) material breach by the officer of the officer's fiduciary obligations as an officer or director of the Company, (E) a persistent failure by the officer to perform the duties and responsibilities of the officer's employment hereunder, which failure is willful and deliberate on the officer's part and is not remedied by the officer within 30 days after the officer's receipt of written notice from the Company of such failure; or (F) material breach of any terms and conditions of the respective employment agreement by the officer, which breach has not been cured by the officer within ten days after written notice thereof to the officer from the Company. No act or failure to act on the officer's part shall be considered "dishonest," "willful" or "deliberate" unless intentionally done or omitted to be done by the officer in bad faith and without reasonable belief that the officer's action or omission was in the best interests of the Company. Any act, or failure to act, based upon authority given pursuant to a resolution duly adopted by the Board shall be conclusively presumed to be done, or omitted to be done, by the officer in good faith and in the best interests of the Company.

Under the employment agreements, "Termination for Good Reason" means a termination of the officer's employment by such officer within 30 days of the Company's failure to cure, in accordance with the procedures set forth below, any of the following events: (A) a reduction in the officer's annual

base salary as in effect immediately prior to such reduction by more than 10% without the officer's written consent, unless such reduction is made pursuant to an across the board reduction applicable to all senior executives of the Company; (B) the removal of the officer by the Company from the executive officer position held; (C) a material reduction in the officer's duties and responsibilities as in effect immediately prior to such reduction; or (D) a material breach of any material provision of the employment agreement by the Company to which the officer shall have delivered a written notice to the board within 45 days of the officer's having actual knowledge of the occurrence of one of such events stating that the officer intends to terminate the officer's employment by Termination for Good Reason and specifying the factual basis for such termination, and such event, if capable of being cured, shall not have been cured within 21 days of the receipt of such notice. Notwithstanding the foregoing, a termination shall not be treated as a Termination for Good Reason if the officer shall have consented in writing to the occurrence of the event giving rise to the claim of Termination for Good Reason.

Outstanding Equity Awards at Fiscal Year-End 2017

The following table sets forth information regarding restricted stock awards and outstanding stock options held by our named executive officers as of December 31, 2017:

| NAME | GRANT DATE | VESTING COMMENCEMENT DATE | OPTION AWARDS(1) | | | |
|----------------------------|-----------------|---------------------------|---|---|----------------------------|------------------------|
| | | | NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS EXERCISABLE (#) | NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS UNEXERCISABLE (#) | OPTION EXERCISE PRICE (\$) | OPTION EXPIRATION DATE |
| Steven Gullans, Ph.D. | August 4, 2016 | August 4, 2016(2) | 20,000 | 40,000 | 10.00 | August 3, 2026 |
| | May 30, 2017 | May 30, 2017(3) | 40,000 | 20,000 | 10.26 | May 29, 2027 |
| Mina Sooch | June 29, 2015 | June 29, 2015(4) | 5,220 | 0 | 1.34 | June 28, 2025 |
| | August 4, 2016 | August 4, 2016(2) | 450,000 | 150,000 | 10.00 | August 3, 2026 |
| Charles L. Bisgaier, Ph.D. | August 4, 2016 | August 4, 2016(2) | 50,000 | 100,000 | 10.00 | August 3, 2026 |
| Lee Golden, Ph.D. | October 5, 2016 | October 5, 2016(5) | 45,250 | 80,750 | 10.80 | October 4, 2026 |
| | March 28, 2017 | March 28, 2017(6) | 4,167 | 15,833 | 11.15 | March 27, 2027 |

- (1) All of the outstanding stock option awards were granted under our 2015 Plan unless otherwise noted.
- (2) The shares underlying the option vest monthly in equal increments over a 48 month period beginning on August 4, 2016. For Ms. Sooch, 240,000 shares underlying her award were subject to performance conditions, with 120,000 shares to be earned upon the initiation of our first clinical trial and 120,000 shares to be earned upon the initiation of our second clinical trial. The first and second clinical trials were initiated in 2016, and all 240,000 shares underlying Ms. Sooch's award have been earned, subject to time vesting conditions.
- (3) The shares underlying the option vest monthly in equal increments over a 12 month period on the last day of the month beginning on May 30, 2017.
- (4) The shares underlying the option were fully vested upon grant.
- (5) Granted under the Inducement Plan. 12,000 shares underlying the option vested immediately on October 5, 2016; one-fourth of the remaining shares vest October 31, 2017; the balance of the shares vest in a series of 36 successive equal monthly installments measured from October 31, 2017.
- (6) The shares underlying the option vest monthly in equal increments over a 48 month period on the last day of each month, commencing on the grant date.

Chief Executive Officer Pay Ratio

As an "emerging growth company" we are not required to provide information relating to the ratio of total compensation of our Chief Executive Officer to the median of the annual total compensation of all of our employees, as required by the Investor Protection and Securities Reform Act of 2010, which is part of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Employee Benefit and Stock Plans

Amended and Restated 2015 Equity Incentive Plan

See "Proposal 3—Summary of 2015 Plan" above.

Inducement Plan

Our board of directors adopted the Inducement Plan in September 2016. Pursuant to the Inducement Plan, as amended, we have reserved 450,000 shares of common stock to be used exclusively for grants of awards to individuals who were not previously employees or directors of the Company, as an inducement material to the individual's entry into employment with the Company within the meaning of Rule 5635(c)(4) of the NASDAQ Listing Rules. The Inducement Plan was approved, amended and can be further amended to increase the number of shares reserved thereunder at any time by our board of directors without stockholder approval pursuant to Rule 5635(c)(4) of the NASDAQ Listing Rules. The terms and conditions of the Inducement Plan are substantially similar to our 2015 Plan, which was approved by our stockholders.

2016 Employee Stock Purchase Plan

In April 2016, our board of directors and stockholders approved the 2016 Employee Stock Purchase Plan (ESPP), in order to enable eligible employees to purchase shares of our common stock at a discount following the date of our initial public offering. The ESPP became effective on August 4, 2016. The purpose of the ESPP is to retain the services of new employees and secure the services of new and existing employees while providing incentives for such individuals to exert maximum efforts toward our success and that of our affiliates.

Share Reserve. The ESPP authorizes the issuance of 300,000 shares of our common stock pursuant to purchase rights granted to our employees or to employees of any of our designated affiliates. The number of shares of our common stock reserved for issuance will automatically increase on January 1 of each calendar year through January 1, 2026 by the least of (1) 1.0% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year and (2) 75,000 shares. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code. As of the date hereof, no shares of our common stock have been purchased under the ESPP.

Administration. Our board of directors has delegated its authority to administer the ESPP to our compensation committee. The ESPP is implemented through a series of offerings of purchase rights to eligible employees. Under the ESPP, we may specify offerings with durations of not more than 27 months, and may specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for employees participating in the offering. An offering may be terminated under certain circumstances.

Payroll Deductions. Generally, all regular employees, including executive officers, employed by us or by any of our designated affiliates, may participate in the ESPP and may contribute, normally through payroll deductions, up to an amount determined by the board of directors, but not exceeding 15% of their earnings for the purchase of our common stock under the ESPP. Unless otherwise

determined by our board of directors, common stock will be purchased for accounts of employees participating in the ESPP at a price per share equal to the lower of (1) 85% of the fair market value of a share of our common stock on the first date of an offering or (2) 85% of the fair market value of a share of our common stock on the date of purchase.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in the ESPP, as determined by our board of directors: (1) customarily employed for more than 20 hours per week, (2) customarily employed for more than five months per calendar year or (3) continuous employment with us or one of our affiliates for a period of time, not to exceed two years. No employee may purchase shares under the ESPP at a rate in excess of \$25,000 worth of our common stock based on the fair market value per share of our common stock at the beginning of an offering for each year such a purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under the ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our outstanding capital stock measured by vote or value pursuant to Section 424(d) of the Code.

Changes to Capital Structure. In the event that there occurs a change in our capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or similar transaction, the board of directors will make appropriate adjustments to (1) the number of shares reserved under the ESPP, (2) the maximum number of shares by which the share reserve may increase automatically each year and (3) the number of shares and purchase price of all outstanding purchase rights.

Corporate Transactions. In the event of certain significant corporate transactions, including the consummation of: (1) a sale of all our assets, (2) the sale or disposition of 90% of our outstanding securities, (3) a merger or consolidation where we do not survive the transaction and (4) a merger or consolidation where we do survive the transaction but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction, any then-outstanding rights to purchase our stock under the ESPP may 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 purchase rights, then the participants' accumulated payroll contributions will be used to purchase shares of our common stock within ten business days prior to such corporate transaction, and such purchase rights will terminate immediately.

Plan Amendments, Termination. Our board of directors has the authority to amend or terminate our ESPP, provided that except in certain circumstances any such amendment or termination may not materially impair any outstanding purchase rights without the holder's consent. We will obtain stockholder approval of any amendment to our ESPP as required by applicable law or listing requirements.

EQUITY COMPENSATION PLAN INFORMATION

The following table presents information as of December 31, 2017 with respect to compensation plans under which shares of our common stock may be issued.

| <u>Plan Category</u> | <u>Number of securities to be issued upon exercise of outstanding options, warrants and rights (#)</u> | <u>Weighted-average exercise price of outstanding options, warrants and rights (\$)</u> | <u>Number of securities remaining available for future issuance under equity compensation plans (#)</u> |
|--|--|---|---|
| Equity compensation plans approved by security holders | 2,168,140 | 9.19 | 433,329(1) |
| Equity compensation plans not approved by security holders | 296,000 | 11.40 | 4,000(2) |
| Total | 2,464,140 | | 437,329(3) |

- (1) Includes 225,000 shares of common stock that remained available for purchase under the ESPP and 208,329 shares of common stock that remained available for issuance under our 2015 Plan. The number of shares of our common stock reserved under the ESPP will automatically increase on January 1 of each calendar year through January 1, 2026 by the least of (1) 1.0% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year and (2) 75,000 shares. The number of shares of our common stock reserved under our 2015 Plan will automatically increase on January 1 of each year, continuing through and including January 1, 2026, to an amount equal to 20% of the fully diluted shares as of December 31 of the preceding calendar year, or a lesser number of shares determined by our board of directors.
- (2) Includes 4,000 shares of common stock that remained available for issuance under our Inducement Plan.
- (3) Excludes the shares of common stock that may become available for future issuance under the 2015 Plan if our stockholders approve the amendment to the 2015 Plan pursuant to Proposal 3 in this proxy statement.

CERTAIN RELATIONSHIPS AND RELATED-PARTY TRANSACTIONS

The following includes a summary of transactions since January 1, 2017 to which we have been a party, in which the amount involved in the transaction exceeded \$120,000, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change of control and other arrangements, which are described under "Executive Officer and Director Compensation."

Pfizer Inc. License Agreement

In April 2011, we entered into the Pfizer Agreement for a worldwide exclusive license to certain patent rights to make, use, sell, offer for sale and import the clinical product candidate gemcabene. In exchange for this license, we agreed to issue shares of our common stock to Pfizer representing 15% of our fully diluted capital at the close of our first arms-length Series A financing.

We agreed to make milestone payments totaling up to \$37 million upon the achievement of certain milestones, including the first regulatory submission in any country, regulatory approval in each of the United States, Europe and Japan, the first anniversary of the first regulatory approval in any country, and upon achieving certain aggregate sales levels of gemcabene or any product containing gemcabene. Future milestone payments under the Pfizer Agreement, if any, are not expected to begin for at least several years and extend over a number of subsequent years.

We have also agreed to pay Pfizer tiered royalties on a country-by-country basis based upon the annual amount of net sales as specified in the Pfizer Agreement until expiration of the last valid claim of the licensed patent rights, including any patent term extensions or supplemental protection certificates. The royalty rates range from the high single digits to the low teens depending on the level of net sales. Under the Pfizer Agreement we are obligated to use commercially reasonable efforts to develop and commercialize gemcabene. In addition, Pfizer has a non-exclusive, sub licensable, royalty-free right and license for non-commercial research or development purposes to intellectual property rights relating to gemcabene that are developed by us after the effective date of the license with Pfizer.

In March 2015, upon the closing of our Series A preferred stock financing, we issued 675,250 shares of our common stock to Pfizer in connection with the first equity payment, pursuant to which Pfizer became the owner of more than 5% of our capital stock.

The Pfizer Agreement will expire upon expiration of the last royalty term. Either party may terminate the Pfizer Agreement for the other party's uncured material breach and specified bankruptcy events. Pfizer may terminate the Pfizer Agreement if we or any of our sublicensees challenge the validity, enforceability or ownership of the licensed patents. Furthermore, upon termination of the license agreement for cause by Pfizer, we must grant Pfizer a non-exclusive license to use any intellectual property rights arising from the development or commercialization of gemcabene. Additionally, Pfizer may revoke the license if we are unable to adequately commercialize gemcabene by April 2021.

Investor Agreements

In connection with our Series A convertible preferred stock financing, we entered into an investor rights agreement and right of first refusal and co-sale agreement containing voting rights, information rights, rights of first refusal and co-sale and registration rights, among other things, with each of the holders of our Series A convertible preferred stock. On April 14, 2016, we amended the investor rights agreement to provide registration rights to certain holders of our convertible notes. As detailed above, certain members of our board of directors, executive officers and related parties were holders of our

Series A convertible preferred stock prior to the closing of our initial public offering. These rights terminated upon the closing of our initial public offering, except for the registration rights described below. These registration rights will terminate as to a given holder of registrable securities upon the earlier of (i) five years following the closing of our initial public offering, (ii) after the consummation of a liquidation event and (iii) when freely tradeable under Rule 144 of the Securities Act.

Demand Registration Rights

At any time beginning six months after our initial public offering date, upon the written request of certain of the holders of the registrable securities then outstanding that we file a registration statement under the Securities Act covering the registration of the registrable securities having an aggregate offering price to the public of not less than \$5 million, we will be obligated to notify all holders of registrable securities of such request and to use our reasonable best efforts to register the sale of all registrable securities that holders may request to be registered. We are not required to effect more than two registration statements which are declared or ordered effective. We may postpone the filing or effectiveness of a registration statement for up to 90 days once in any twelve month period if our Board determines in its good faith judgment that such registration and offering would materially and adversely affect us. As of the Record Date, the holders of 1,230,625 shares were entitled to these demand registration rights.

"Piggyback" Registration Rights

If we register any securities for public sale, holders of registration rights will have the right to include their shares in the registration statement. These piggyback registration rights are subject to specified conditions and limitations, including the right of the underwriters of any underwritten offering to limit the number of shares having registration rights to be included in the registration statement, but not below 30% of the total number of shares included in the registration statement. As of the Record Date, the holders of 1,230,625 shares were entitled to these piggyback registration rights.

Form S-3 Registration Rights

If we are eligible to file a registration statement on Form S-3, holders of at least 20% of the outstanding registrable securities will have the right to demand that we file a registration statement on Form S-3 so long as the aggregate price to the public of the securities to be sold under the registration statement on Form S-3 is at least \$5 million. We are not required to effect more than two registrations on Form S-3 in any 12-month period. The right to have such shares registered on Form S-3 is further subject to other specified conditions and limitations. Upon such a request, we will be required to use our reasonable best efforts to file the registration as soon as practicable. As of the Record Date, the holders of 1,230,625 shares were entitled to these Form S-3 registration rights.

Indemnification Agreements

We have entered, and intend to continue to enter, into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated certificate of incorporation and amended and restated bylaws. These agreements, among other things, require us to indemnify our directors and officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of their services as one of our directors or officers or any other company or enterprise to which the person provides services at our request. We believe that these provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

Our amended and restated certificate of incorporation and amended and restated bylaws limit our directors' liability to the fullest extent permitted under Delaware corporate law. Delaware corporate law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability:

- for any transaction from which the director derives an improper personal benefit;
- for any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- under Section 174 of the Delaware General Corporation Law (unlawful payment of dividends or redemption of shares); or
- for any breach of a director's duty of loyalty to the corporation or its stockholders.

If the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of our directors shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

Delaware law and our amended and restated certificate of incorporation and our amended and restated bylaws provide that we will, in certain situations, indemnify our directors and officers and may indemnify other employees and other agents, to the fullest extent permitted by law. Any indemnified person is also entitled, subject to certain limitations, to payment or reimbursement of reasonable expenses (including attorneys' fees and disbursements) in advance of the final disposition of the proceeding.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or control persons, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Insider Participation in Private Placement

Certain of our directors and 5% holders participated in our March 2017 private placement wherein we issued and sold units at a price of \$9.47 per unit, with each unit consisting of one share of our common stock and a warrant to purchase 0.75 shares of common stock. The warrants have an exercise price of \$10.40 per share and are exercisable for a period of five years from the date of issuance. The following table summarizes units purchased in the private placement by our directors and entities who held more than 5% of our outstanding capital stock at the time of the purchase.

| <u>Name</u> | <u>Number of Units Purchased</u> | <u>Aggregate Purchase Price (\$)</u> |
|-------------------------------------|--------------------------------------|--|
| Greater than 5% stockholders | | |
| Cormorant Asset Management, LLC | 52,798 | 499,997.06 |
| Excel Venture Fund II, LLC(1) | 52,798 | 499,997.06 |
| Directors | | |
| Pedro Lichtinger | 10,559 | 99,993.73 |
| Andrew Sassine | 21,119 | 199,996.93 |
| P. Kent Hawryluk(2) | 25,000 | 236,750.00 |

(1) Our director, Dr. Gullans, is a Manager of Excel.

(2) Purchased by the P. Kent Hawryluk Revocable Trust, of which Mr. Hawryluk is the trustee.

Private Placement Registration Rights Agreement

On March 10, 2017, the Company entered into a Securities Purchase Agreement with certain accredited investors (the "Purchasers") pursuant to which the Company, in a private placement (the "Private Placement"), agreed to issue and sell to the Purchasers units, each of which consisted of one share of the Company's common stock, and a warrant to purchase 0.75 shares of common stock (the "Warrants"). In connection with the Private Placement, the Company entered into a Registration Rights Agreement with the Purchasers, dated as of March 10, 2017 (the "Registration Rights Agreement"), pursuant to which the Company agreed to file a registration statement with the SEC covering the resale of the shares of common stock sold in the Private Placement and the shares of common stock issuable upon exercise of the Warrants, within 30 days of the closing of the Private Placement. The Registration Rights Agreement includes customary indemnification rights in connection with the registration statement.

Insider Participation in the Follow-On Public Offering

Excel, one of our principal stockholders and an affiliate of our Interim President and Chief Executive Officer, purchased 71,429 shares for an aggregate purchase price of \$500,003 in our underwritten public offering that closed on February 12, 2018.

Policies and Procedures for Transactions with Related Parties

To assist the Company in complying with its disclosure obligations and to enhance the Company's disclosure controls, the Board approved a formal policy in June 2016 regarding related person transactions. A "related person" is a director, officer, nominee for director or a more than 5% stockholder (of any class of the Company's voting stock) since the beginning of the Company's last completed fiscal year, and their immediate family members. A related person transaction is any transaction or any series of transactions in which the Company was or is to be a participant, the amount involved exceeds \$120,000, and in which any related person had or will have a direct or indirect material interest.

Specifically, the policy establishes a process for identifying related persons and procedures for reviewing and approving such related person transactions. In addition, directors and executive officers are required to complete an annual questionnaire in connection with the Company's proxy statement for its annual meeting of stockholders, which includes questions regarding related person transactions, and such persons also are required to provide written notice to the Company or outside legal counsel of any updates to such information prior to the annual meeting. Further, the Company's legal, financial and other departments have established additional procedures to assist the Company in identifying existing and potential related person transactions and other potential conflict of interest transactions, including policies and procedures designed to comply with Auditing Standard No. 18 issued by the Public Company Accounting Oversight Board.

The audit committee and/or the independent directors of the Board review such proposed business transactions to ensure that the Company's involvement in such transactions is on terms comparable to those that could be obtained in arm's length dealings with an unrelated third party and is in the best interests of the Company and its stockholders.

In addition, under the Code of Business Conduct and Ethics, the Company's employees, officers and directors are discouraged from entering into any transaction that may cause a conflict of interest for the Company. In addition, they must report any potential conflict of interest, including related person transactions, to their supervisor or the compliance officer, as defined in the Code of Business Conduct and Ethics.

ADDITIONAL INFORMATION

Stockholder Proposals to be Presented at Next Annual Meeting

Requirements for Stockholder Proposals to be Brought Before an Annual Meeting. Our Amended and Restated Bylaws provide that for stockholder nominations to our Board or other proposals to be considered at an annual meeting, the stockholder must give timely notice thereof in writing to the Secretary at Gemphire Therapeutics Inc., 17199 N. Laurel Park Drive, Suite 401, Livonia, Michigan 48152.

All proposals of stockholders that are intended to be presented by such stockholder at an annual meeting of stockholders must be in writing and notice must be delivered to the Secretary at our principal executive offices not later than the close of business on the 90th day nor earlier than the close of business on the 120th day prior to the first anniversary of the preceding year's annual meeting, except in the case that the date of the annual meeting is advanced more than 30 days prior to or delayed by more than 30 days after the anniversary of the preceding year's 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 annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made.

To be timely for our company's 2019 Annual Meeting of Stockholders, a stockholder's notice must be delivered to or mailed and received by our Secretary at our principal executive offices not earlier than the close of business on January 22, 2019 and not later than the close of business on February 21, 2019. A stockholder's notice to the Secretary must set forth as to each matter the stockholder proposes to bring before the annual meeting the information required by applicable law and our Amended and Restated Bylaws. In no event will the public announcement of an adjournment or a postponement of our annual meeting commence a new time period for the giving of a stockholder's notice as provided above.

Stockholders are also advised to review our Amended and Restated Bylaws, which contain additional requirements with respect to advance notice of stockholder proposals and director nominations.

Requirements for Stockholder Proposals to be Considered for Inclusion in our Proxy Materials. Stockholder proposals submitted pursuant to Rule 14a-8 under the Exchange Act and intended to be presented at our 2019 annual meeting of stockholders must be received by us not later than Tuesday, December 18, 2018 in order to be considered for inclusion in our proxy materials for that meeting. A stockholder's notice to the Secretary must set forth as to each matter the stockholder proposes to bring before the annual meeting the information required by applicable law and our Amended and Restated Bylaws.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16 of the Exchange Act requires our directors, executive officers and any persons who own more than 10% of our common stock to file initial reports of ownership and reports of changes in ownership with the SEC. Such persons are required by SEC regulation to furnish us with copies of all Section 16(a) forms that they file. Based solely on our review of the copies of such forms furnished to us and written representations from our directors and executive officers, we are not aware of any person who, at any time during 2017, was subject to Section 16 of the Exchange Act with respect to our common stock and failed to file, on a timely basis, reports required by Section 16(a) of the Exchange Act during 2017.

Available Information

We will mail without charge, upon written request, a copy of our annual report on Form 10-K for the year ended December 31, 2017, including the financial statements and list of exhibits, and any exhibit specifically requested. Requests should be sent to:

Gemphire Therapeutics Inc.
17199 N. Laurel Park Drive, Suite 401, Livonia, Michigan 48152
Attn: Director of Finance

The annual report on Form 10-K is also available at <http://ir.gemphire.com> under "Financial Information".

"Householding"—Stockholders Sharing the Same Address

The SEC has adopted rules that permit companies and intermediaries (such as brokers) to implement a delivery procedure called "householding." Under this procedure, multiple stockholders who reside at the same address may receive a single copy of our annual report on Form 10-K and proxy materials unless the affected stockholder has provided other instructions. This procedure reduces printing costs and postage fees, and helps protect the environment as well.

We expect that a number of brokers with account holders who are our stockholders will be "householding" our annual report on Form 10-K and proxy materials. A single set of an annual report on Form 10-K and other proxy materials will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from one or more of the affected stockholders. Once you have received notice from your broker that it will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. Stockholders may revoke their consent at any time by contacting your broker.

Upon written or oral request, we will undertake to promptly deliver a separate copy of the annual report on Form 10-K and other proxy materials to any stockholder at a shared address to which a single copy of any of those documents was delivered. To receive a separate copy of the annual report on Form 10-K and other proxy materials now or in the future, you may write our Director of Finance at 17199 N. Laurel Park Drive, Suite 401, Livonia, Michigan 48152, Attn: Director of Finance, or arabourn@gemphire.com, or call (734) 245-1700.

Any stockholders who share the same address and currently receive multiple copies of our annual report on Form 10-K and other proxy materials who wish to receive only one copy in the future can contact their bank, broker or other holder of record to request information about "householding" or our Director of Finance at the address or telephone number listed above.

OTHER MATTERS

Our Board does not presently intend to bring any other business before the meeting and, so far as is known to the Board, no matters are to be brought before the meeting except as specified in the notice of the meeting. As to any business that may arise and properly come before the meeting, however, it is intended that proxies, in the form enclosed, will be voted in respect thereof in accordance with the judgment of the persons voting such proxies.

**AMENDMENT
TO THE
GEMPHIRE THERAPEUTICS INC.
AMENDED AND RESTATED 2015 EQUITY INCENTIVE PLAN**

**ADOPTED BY THE BOARD OF DIRECTORS: April 9, 2018
APPROVED BY THE STOCKHOLDERS: , 2018**

The Gemphire Therapeutics Inc. Amended and Restated 2015 Equity Incentive Plan (the "Plan") is hereby amended in the following respects, effective from and after the date approved by the stockholders of Gemphire Therapeutics Inc. as set forth above, in accordance with Sections 2(b)(vi) and (vii) of the Plan. Following such effective date, any reference to the "Plan" shall mean the Plan, as amended hereby.

Section 3(a)(i) of the Plan is deleted in its entirety and replaced with the following sentence:

"Subject to Section 9(a) relating to Capitalization Adjustments, and Section 3(a)(ii) regarding the annual increase, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards will not exceed the sum of (A) 3,115,077 new shares, plus (B) the number of shares that are Returning Shares, as such shares become available from time to time (the "**Share Reserve**").

Except as specifically set forth herein, the terms of the Plan shall be and remain unchanged, and the Plan as amended shall remain in full force and effect.

▼ IF YOU HAVE NOT VOTED VIA THE INTERNET OR TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE ▼



Proxy — Gemphire Therapeutics Inc.

Notice of 2018 Annual Meeting of Shareholders

315 East Eisenhower Parkway, Suite 100, Ann Arbor, MI 48108

Proxy Solicited by Board of Directors for Annual Meeting — 8 a.m. Eastern Time — May 22nd, 2018

Dr. Steve Gullans and Jeffrey Mathiesen, 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 Gemphire Therapeutics Inc. to be held on May 22nd, 2018 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 Proxies will have authority to vote FOR all nominees in Proposal 1, FOR Proposal 2 and FOR Proposal 3.

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.)