UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

| Filed | by the | e Registrant ☑ Filed by a Party other than the Registrant □ |
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| Chec | k the a | appropriate box: |
| | Prelin | minary Proxy Statement |
| | Conf | idential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2)) |
| X | Defin | itive Proxy Statement |
| | Defin | itive Additional Materials |
| | Solic | iting Material under §240.14a-12 |
| | | Catalyst Biosciences, Inc. (Name of registrant as specified in its charter) |
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| | (1) | Title of each class of securities to which the transaction applies: |
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CATALYST BIOSCIENCES, INC.

611 Gateway Boulevard, Suite 710 South San Francisco, California 94080

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JUNE 13, 2019

To the Stockholders of Catalyst Biosciences, Inc.:

NOTICE IS HEREBY GIVEN that the 2019 annual meeting of stockholders (the "Annual Meeting") of Catalyst Biosciences, Inc., a Delaware corporation (the "Company"), will be held at the Company's offices located at 611 Gateway Boulevard, Suite 710, South San Francisco, California 94080, on June 13, 2019, at 8:00 a.m., Pacific Time, for the following purposes:

- 1. To elect two Class I directors of our Board of Directors to serve for the ensuing three years and until their successors are elected;
- 2. To hold a non-binding, advisory vote to approve the compensation of the Company's Named Executive Officers;
- 3. To ratify the appointment of EisnerAmper LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2019; and
- 4. To transact other business that may properly come before the Annual Meeting or any adjournments or postponements thereof.

You can find more information about each of these items, including the nominees for directors, in the proxy statement accompanying this notice of annual meeting. The record date for the Annual Meeting is the close of business on April 22, 2019 (the "Record Date"). Only stockholders of record as of the Record Date are entitled to notice of and to vote at the meeting or adjournment(s) or postponement(s) thereof.

The board of directors (the "Board") of the Company recommends that you vote in favor of each of the nominees for director, and in favor of proposals 2 and 3, outlined in the proxy statement accompanying this notice of annual meeting.

This notice of annual meeting and the accompanying proxy statement is being furnished in connection with the solicitation of proxies by the Company, on behalf of the Board, for the Annual Meeting. Pursuant to rules adopted by the Securities and Exchange Commission (the "SEC"), we have elected to provide access to our proxy materials for the Annual Meeting over the Internet. Accordingly, on or about May 2, 2019, we intend to begin mailing a Notice of Internet Availability of Proxy Materials (the "Notice of Internet Availability") to all stockholders of record as of the Record Date who are entitled to vote at the Annual Meeting. If you are a stockholder of record as of the Record Date you can vote your shares using one of the following methods:

- By completing and returning a written proxy card;
- · By internet or telephone; or
- · By attending our Annual Meeting and voting thereat.

ALL STOCKHOLDERS OF RECORD AS OF THE RECORD DATE ARE CORDIALLY INVITED TO ATTEND THE MEETING. WHETHER OR NOT YOU EXPECT TO ATTEND IN PERSON, TO ENSURE YOUR REPRESENTATION AT THE MEETING AND THE PRESENCE OF A QUORUM AT THE ANNUAL MEETING, YOU ARE URGED TO VOTE YOUR SHARES AS PROMPTLY AS POSSIBLE BY MARKING, SIGNING, DATING AND RETURNING THE PROXY CARD THAT MAY BE MAILED TO YOU IN THE POSTAGE-PREPAID ENVELOPE PROVIDED FOR THAT PURPOSE OR BY INTERNET OR TELEPHONE. ANY STOCKHOLDER ATTENDING THE MEETING MAY VOTE IN PERSON EVEN IF HE OR SHE HAS RETURNED A PROXY CARD OR VOTED BY INTERNET OR TELEPHONE. PLEASE NOTE, HOWEVER, THAT IF YOUR SHARES ARE HELD OF RECORD BY A BROKER, BANK OR OTHER NOMINEE AND YOU WISH TO VOTE AT THE MEETING, YOU MUST OBTAIN A PROXY ISSUED IN YOUR NAME FROM THAT RECORD HOLDER.

By order of the Board,

Nassim Usman, Ph.D.

President and Chief Executive Officer

South San Francisco, California

May 2, 2019

* YOUR VOTE IS IMPORTANT SO PLEASE ACT TODAY! *

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF STOCKHOLDERS OF CATALYST BIOSCIENCES, INC. TO BE HELD ON JUNE 13, 2019

The Notice of 2019 Annual Meeting of Stockholders, the proxy statement and the accompanying proxy card, and the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, are available at http://www.astproxyportal.com/ast/21328.

To obtain directions to our offices in order to attend the Annual Meeting of Stockholders in person, please direct a request to:

Investor Inquiries Catalyst Biosciences, Inc. 611 Gateway Blvd., Suite 710 South San Francisco, CA 94080 Attention: Fletcher Payne Telephone: 650.871.0761 Email: investors@catbio.com

TABLE OF CONTENTS

| ABOUT THE COMPANY | 2 |
|---|----|
| QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING | 3 |
| PROPOSAL ONE — ELECTION OF DIRECTORS | 9 |
| Nominees for Class I Directors | 9 |
| Continuing Directors | 10 |
| Required Vote | 12 |
| CORPORATE GOVERNANCE | 13 |
| Board and Leadership Structure | 13 |
| <u>Director Independence</u> | 13 |
| Role of the Board in Risk Oversight | 13 |
| Contacting the Board of Directors | 14 |
| Corporate Governance Guidelines | 14 |
| Code of Business Conduct and Ethics | 14 |
| The Board and its Committees | 15 |
| Report of the Audit Committee | 19 |
| Certain Relationships and Related Party Transactions | 20 |
| EXECUTIVE COMPENSATION | 22 |
| Executive Officers | 22 |
| Executive Compensation Table | 22 |
| Employment Agreements | 23 |
| Outstanding Equity Awards at December 31, 2018 | 26 |
| Compensation Risk Management | 27 |
| <u>Director Compensation</u> | 27 |
| SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT | 29 |
| PROPOSAL TWO — ADVISORY VOTE TO APPROVE EXECUTIVE COMPENSATION | 31 |
| PROPOSAL THREE — RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM | 32 |
| WHERE YOU CAN FIND MORE INFORMATION | 33 |
| FORM 10-K | 33 |
| OTHER MATTERS | 34 |

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CATALYST BIOSCIENCES, INC.

611 Gateway Boulevard, Suite 710 South San Francisco, California 94080

PROXY STATEMENT FOR THE 2019 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JUNE 13, 2019

The board of directors (the "Board") of Catalyst Biosciences, Inc., a Delaware corporation (the "Company"), is soliciting your proxy to vote at the 2019 annual meeting of stockholders (the "Annual Meeting") of the Company to be held at our offices, located at 611 Gateway Boulevard, Suite 710, South San Francisco, California 94080, on June 13, 2019, at 8:00 a.m., Pacific Time, including at any adjournment(s) or postponement(s) of the Annual Meeting. As a stockholder of record at the close of business on April 22, 2019 (the "Record Date"), you are cordially invited to attend the Annual Meeting to vote on the proposals described in this proxy statement and in the accompanying Notice of Annual Meeting of Stockholders (the "Notice of Annual Meeting"). Only stockholders of record as of the Record Date are entitled to notice of and to vote at the Annual Meeting.

Pursuant to rules adopted by the Securities and Exchange Commission (the "SEC"), we have elected to provide access to our proxy materials to our stockholders over the Internet instead of mailing a printed copy of our proxy materials to each stockholder of record. Accordingly, on or about May 2, 2019, we intend to mail a Notice of Internet Availability of Proxy Materials (the "Notice of Internet Availability") to all stockholders of record and beneficial owners as of the Record Date who are entitled to vote at the Annual Meeting. All stockholders will have the ability to access the proxy materials, including the Notice of Annual Meeting, this proxy statement and the accompanying proxy card for the Annual Meeting, and our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 (the "Annual Report"), on the website referred to in the Notice of Internet Availability or to request to receive a printed copy of the proxy materials. Instructions on how to access the proxy materials over the Internet or to request to receive a printed copy thereof and how to vote your shares by proxy over the Internet may be found in the Notice of Internet Availability. You will need to obtain your own Internet access if you choose to access the proxy materials and/or vote over the Internet. You will not receive printed copies of the proxy materials unless you request them.

You do not need to attend the Annual Meeting to vote your shares. Instead, if you are a stockholder of record as of the Record Date, you may vote your shares over the Internet, by telephone, or, if you request to receive a printed set of the proxy materials, by completing, signing, dating and mailing the accompanying proxy card in the return envelope. The Notice of Internet Availability will provide instructions on how to vote your shares over the Internet or by telephone. Whether or not you plan to attend the meeting, please carefully review this proxy statement and then cast your vote, regardless of the number of shares you hold. Submitting your vote *via* the Internet or by telephone or proxy card will not affect your right to vote in person if you decide to attend the Annual Meeting. If your shares are held in street name (held for your account by a broker or other nominee), you will receive instructions from your broker or other nominee explaining how to vote your shares, and you will have the option to cast your vote by telephone or over the Internet if your voting instruction form from your broker or nominee includes instructions and a toll-free telephone number or Internet website to do so. In any event, to be sure that your vote will be received in time, please cast your vote by your choice of available means at your earliest convenience.

ABOUT THE COMPANY

Unless otherwise indicated in this proxy statement or the context requires otherwise, the words "Company," "Catalyst," "we," "us" and "our" refer to Catalyst Biosciences, Inc., a Delaware corporation, together with its subsidiary, Catalyst Bio, Inc., which we refer to as "Catalyst Bio."

Unless otherwise indicated, all historical share numbers, share prices and exercise prices in this proxy statement give effect to the applicable reverse stock splits and stock dividends, and all references to "common stock," "stock" or "shares" mean shares of the Company's common stock, as so adjusted. The Company's shares of common stock trade on the Nasdaq Capital Market ("Nasdaq"), under the ticker symbol "CBIO."

QUESTIONS AND ANSWERS

Proxy Materials

Why has the Board provided these proxy materials? The Board has made these proxy materials available to you on the Internet, or, upon your request, has delivered printed proxy materials to you, in connection with the solicitation of proxies to vote at the Annual Meeting to be held on June 13, 2019 at 8:00 a.m., Pacific Time, at our offices, located at 611 Gateway Boulevard, Suite 710, South San Francisco, California 94080. You are receiving this proxy statement and the accompanying proxy card from us because you owned shares of our common stock as of the close of business on April 22, 2019, which is the Record Date for the Annual Meeting. As a stockholder of record as of the Record Date, you are cordially invited to attend the Annual Meeting and we request that you vote on the proposals described in this proxy statement. However, you do not need to attend the Annual Meeting to vote your shares. Instead, you may simply vote your shares by proxy via the Internet or by completing, signing and returning the enclosed proxy card. This proxy statement includes information that we are required to provide to you under the SEC rules and that is designed to assist you in voting your shares.

Why did I receive a Notice of Internet Availability of Proxy Materials instead of a full set of proxy materials? Pursuant to rules adopted by the SEC, we have elected to provide access to our proxy materials to our stockholders over the Internet rather than printing and mailing the proxy materials. We believe electronic delivery will expedite the receipt of materials and will help lower our costs and reduce the environmental impact of our annual meeting materials. Therefore, a Notice of Internet Availability will be mailed to all stockholders of record as of the Record Date starting on or around May 2, 2019. The Notice of Internet Availability will provide instructions as to how stockholders may access and review the proxy materials, including the Notice of Annual Meeting, this proxy statement and the accompanying proxy card and our Annual Report, on the website referred to in the Notice of Internet Availability or, alternatively, how to request that a copy of the proxy materials, including a proxy card, be sent to them by mail. The Notice of Internet Availability will also provide instructions on how to vote your shares.

In addition, stockholders of record as of the Record Date may request to receive the proxy materials in printed form by mail or electronically by e-mail on an ongoing basis for future stockholder meetings. Choosing to receive your future proxy materials electronically by e-mail will save us the cost of printing and mailing documents to you and will reduce the environmental impact of printing and mailing these materials. If you choose to receive future proxy materials electronically by e-mail, you will receive an email next year with instructions containing a link to those materials and a link to the proxy voting site. Your election to receive proxy materials electronically by e-mail will remain in effect until you revoke it. You will not receive printed copies of the proxy materials unless you request them.

Our proxy materials will also be made available, on or around May 2, 2019, on the Investor Relations page of our website at http://www.astproxyportal.com/ast/21328. Please note that, while our proxy materials are available at the website referenced in the Notice of Internet Availability, no other information contained on either website is incorporated by reference in or considered to be a part of this proxy statement or our future filings with the SEC.

What is included in the proxy materials? The proxy materials include:

- the Notice of Annual Meeting;
- this proxy statement for the Annual Meeting;
- the proxy card for the Annual Meeting; and
- our Annual Report.

What information is contained in this proxy statement? The information in this proxy statement relates to the proposals to be voted on at the Annual Meeting, the voting process, the compensation of our directors and certain of our executive officers, corporate governance, and certain other required information.

Can I access these proxy materials on the Internet? Yes. Commencing on or about May 2, 2019, the proxy materials, including the Notice of Annual Meeting, this proxy statement and the accompanying proxy card and our Annual Report, will be made available for viewing, printing, and downloading at http://www.astproxyportal.com/ast/21328. The proxy materials will also be made available, on or around May 2, 2019, solely for your reference and by courtesy, or through the SEC's EDGAR system at http://www.sec.gov. Please note that the proxy materials posted on our website or the SEC's EDGAR system should only be relied upon for reference. We provide links to these websites herein by courtesy. All proxy materials will remain posted on http://www.astproxyportal.com/ast/21328 at least until the conclusion of the Annual Meeting. Please note that, while our proxy materials will be made available at these websites, no other information contained on these websites is incorporated by reference in or considered to be a part of this proxy statement or our future filings with the SEC.

What does it mean if I receive multiple proxy cards? If you receive more than one proxy card, it means that your shares are registered in more than one name or are registered in different accounts. Please sign and return all proxy cards to ensure that all of your shares are voted.

What happens when two stockholders share the same address? We may satisfy the SEC rules regarding delivery of proxy materials by delivering a single copy of the Notice of Internet Availability and, if applicable, the proxy materials to an address shared by two or more of our stockholders unless we receive contrary instructions from one or more of the stockholders prior to the mailing date. This delivery method is known as "householding" and can result in meaningful cost savings for us. To take advantage of this opportunity, we may deliver only a single copy of the Notice of Internet Availability and, if applicable, the proxy materials to multiple stockholders who share an address, unless contrary instructions are received prior to the mailing date. Similarly, if you share an address with another stockholder and have received multiple copies of the Notice of Internet Availability and, if applicable, the proxy materials, you may write us at the address above or call us at (650) 871-0761 to request delivery of a single copy of the Notice of Internet Availability and, if applicable, the proxy materials in the future. We undertake to deliver promptly upon written or oral request a separate copy of the Notice of Internet Availability and, if applicable, the proxy materials to a stockholder at a shared address to which a single copy of these documents was delivered. If you hold stock as a record stockholder and prefer to receive separate copies of a proxy statement either now or in the future, please contact us.

Voting Information

Who may vote? You are entitled to vote if our records show that you held one or more shares of the Company's common stock as of the close of business on April 22, 2019, the Record Date for the Annual Meeting. At that time, there were 11,980,103 shares of common stock outstanding and entitled to vote, and approximately 65 holders of record. Each share entitles you to one vote at the Annual Meeting.

What is the difference between holding shares as a stockholder of record and as a beneficial owner? If your shares are registered directly in your name with our transfer agent, American Stock Transfer & Trust Company (the "Transfer Agent"), you are considered, with respect to those shares, the "stockholder of record." As a stockholder of record, you have the right to vote in person at the Annual Meeting and the Notice of Internet Availability was sent directly to you by the Transfer Agent. If you are a stockholder of record and you requested to receive printed proxy materials, these proxy materials will be mailed to you directly starting on or about May 2, 2019.

If your shares are held in an account at a brokerage firm, bank, broker-dealer, trust, or other similar organization or other holder of record, you are a considered a "beneficial owner" of shares held in "street name." If you are a beneficial owner, starting on or about May 2, 2019, we have requested that the Notice of Internet Availability be forwarded to you by such brokerage firm, bank, broker-dealer, trust, or other similar organization or other holder of record who is considered, with respect to those shares, the stockholder of record. The Notice of Internet Availability provides instructions for how to request a paper or email copy of this proxy statement. As a

stockholder of record, the brokerage firm, bank, broker-dealer, trust, or other similar organization or other holder of record is entitled to vote at the Annual Meeting and, as a beneficial owner of the shares, you have the right to direct the brokerage firm, bank, broker-dealer, trust, or other similar organization or other holder of record on how to vote the shares. However, because a beneficial owner is not the stockholder of record, you may not vote the shares in person at the Annual Meeting unless you obtain a broker's proxy card from the brokerage firm, bank, broker-dealer, trust, or other similar organization or other holder of record. The broker's proxy card will give you the right to vote the shares at the Annual Meeting.

What am I voting on? There are three matters scheduled for a vote and for which we are soliciting your proxy:

- 1. the election of two Class I directors to serve on our Board for the ensuing three years and until their successors are elected;
- 2. a non-binding, advisory vote to approve the compensation of the Company's Named Executive Officers; and
- 3. the ratification of our appointment of EisnerAmper LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2019.

You may either vote "FOR" all the nominees to the Board or you may "WITHHOLD" your vote for any nominee(s) you specify. You may vote "FOR" or "AGAINST" each of Proposals 2 and 3 or abstain from voting. The Board recommends a vote "FOR" each nominee for director and "FOR" each of Proposals 2 and 3.

How do I vote if I am a stockholder of record? If you were a holder of record of our common stock as of the close of business on April 22, 2019, the Record Date for the Annual Meeting, you may use the following methods to vote your shares at the Annual Meeting:

- By Mail. You may vote by requesting that printed copies of the proxy materials be mailed to you pursuant to the instructions provided in the Notice of Internet Availability and completing, signing, dating and returning, in the accompanying postage prepaid envelope, your paper proxy card that you receive in response to your request. Please allow sufficient time for us to receive your proxy card if you decide to vote by mail.
- *Via* the Internet. You can vote your shares *via* the Internet by accessing the proxy materials on the secured website at http://www.astproxyportal.com/ast/21328 and following the online voting instructions on that website.
- By telephone. You can vote your shares by telephone by accessing the proxy materials on the secured website at http://www.astproxyportal.com/ast/21328 and following the telephone voting instructions on that website.
- In person at the Annual Meeting. If you attend the Annual Meeting, please be sure to bring a form of government-issued picture identification, such as a driver's license or passport, with you for admittance. If you do not provide government-issued picture identification or comply with the other procedures outlined herein, you will not be admitted to the Annual Meeting. You may deliver your completed proxy card in person or you may vote by completing a paper proxy card or a ballot, which will be available at the meeting. Even if you plan to attend the Annual Meeting, we encourage you to vote in advance by Internet, telephone or mail so that your vote will be counted if you later decide not to attend the Annual Meeting.

The Internet and telephone voting procedures are designed to authenticate stockholders' identities by use of a control number to allow stockholders to vote their shares and to confirm that stockholders' instructions have been properly recorded. Voting *via* the Internet or telephone must be completed before the commencement of the Annual Meeting.

How do I vote if I hold my shares in street name? If as of the close of business on April 22, 2019, the Record Date for the Annual Meeting, your shares were held in a stock brokerage account or by a bank or other stockholder of record, you may use the following methods to vote your shares at the Annual Meeting:

- **By Mail, by telephone or** *via* **the Internet.** You should receive instructions from your bank, broker or other nominee explaining how to vote your shares by mail, by telephone or *via* the Internet. If you wish to vote your shares by mail, by telephone or *via* the Internet, you should follow those instructions.
- In person at the Annual Meeting. If your shares are held in a brokerage account or by another nominee or trustee, you are considered the beneficial owner of shares held in street name. As the beneficial owner, you are also invited to attend the Annual Meeting. However, if you attend the meeting, you will need to contact the bank, broker or other nominee that is the stockholder of record for your shares to obtain a broker's proxy card and then bring the proxy card, an account statement, or a letter from the stockholder of record indicating that you beneficially owned the shares as of the Record Date, and a form of government-issued picture identification to the meeting. If you have each of (1) the broker's proxy card, (2) an account statement or letter indicating beneficial ownership as of the Record Date and (3) a government issued picture identification, you may vote by completing a paper proxy card or a ballot, which will be available at the meeting. If you do not have these items, you will not be able to vote at the meeting.

The Notice of the Internet Availability and the Notice of Annual Meeting are **not** proxy cards or ballots and cannot be used to vote your shares. If you do not provide instructions with your proxy, your bank, broker, or other nominee (collectively referred to as a "broker") will determine if it has the discretionary authority to vote on the particular matter. Under applicable rules, brokers have the discretion to vote on routine matters but do not have discretion to vote on non-routine matters. For example, if you do not provide voting instructions to your broker, the broker could vote your shares for the ratification of the appointment of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019 (Proposal 3) because that is deemed to be a routine matter, but the broker could not vote your shares for any of the other four proposals on the agenda at the Annual Meeting.

If you do not provide voting instructions to your broker and the broker has delivered a proxy card indicating that it does not have discretionary authority to vote on a particular proposal, your shares will be considered as "broker non-votes" with regards to that proposal. Broker non-votes will be counted for the purpose of determining the existence of a quorum but generally will not be considered as entitled to vote with respect to that proposal. Broker non-votes are not counted for purposes of determining the number of votes cast with respect to a particular proposal. Thus, a broker non-vote will make a quorum more readily obtainable, but the broker nonvote will not otherwise affect the outcome of the vote on a proposal that requires the affirmative vote of a majority of the shares present and entitled to vote.

Is my vote confidential? Yes, your vote is confidential. Only the following persons have access to your vote: the inspector of elections, individuals who help with processing and counting your votes, and persons who need access for legal reasons. Occasionally, stockholders provide written comments on their proxy cards, which may be forwarded to the Company's management and the Board.

How are votes counted? Votes will be counted by the inspector of election appointed by the Board for the meeting, who will separately count "FOR" and "WITHHOLD" votes and any broker non-votes for the election of directors. Broker non-votes will not count for or against any nominees.

With respect to Proposals 2 and 3 below, the inspector of election will separately count "FOR," "AGAINST" or "ABSTAIN" votes. Abstentions with respect to Proposal 3 will be counted towards the vote total for the proposal and will have the same effect as "AGAINST" votes. Abstentions with respect to Proposal 2 will have no effect on the vote's outcome. Broker non-votes will have no effect and will not be counted towards the vote total for Proposal 3.

How many votes are needed to approve each of the proposals? Provided that a quorum is present, approval of the proposals described in this proxy statement will require the following affirmative votes:

- Proposal 1 Election of our two nominees for Class I directors. The two nominees receiving the most "FOR" votes (among votes properly cast in person or by proxy) will be elected.
- Proposal 2 Advisory vote on the approval of Named Executive Officer compensation. Proposal 2 is an advisory vote; however, the Compensation Committee of the Company and the Board will consider the voting results on this proposal.
- Proposal 3 Ratification of the selection of Eisner Amper LLP as the independent registered public accounting firm for the Company for
 our fiscal year ending December 31, 2019. This proposal must receive a "FOR" vote from the holders of a majority of the voting power present
 and entitled to vote either in person or by proxy on the proposal. If you "ABSTAIN" from voting, it will have the same effect as an "AGAINST"
 vote.

What is the effect of abstentions? Abstentions are counted as shares that are present and entitled to vote for the purposes of determining the presence of a quorum and as votes "AGAINST" for purposes of determining the approval of Proposal 3 submitted to the stockholders for a vote. Abstentions with respect to Proposal 2 will have no effect on the vote's outcome.

How will the Company representatives vote for me? The Company representatives, Nassim Usman and Fletcher Payne, or anyone else that they choose as their substitutes, have been chosen to vote in your place as your proxies at the Annual Meeting. The Company representatives will vote your shares as you instruct them. If you sign, date and return the enclosed proxy card and do not indicate how you want your shares voted, the Company representatives will vote as our Board recommends. If there is an interruption or adjournment of the Annual Meeting before the agenda is completed, the Company representatives may still vote your shares when the meeting resumes. If a broker holds your common stock, they will ask you for instructions and instruct the Company representatives to vote the shares held by them in accordance with your instructions.

Can I change my vote after I have returned my proxy card? Yes. After you have submitted a proxy, you may change your vote at any time before the proxy is exercised by submitting a notice of revocation or a proxy bearing a later date. Accordingly, you may change your vote either by submitting a proxy card prior to or at the Annual Meeting or by voting in-person at the Annual Meeting. The later submitted vote will be recorded and the earlier vote revoked. You also may revoke your proxy by sending a notice of revocation to our Chief Financial Officer, Fletcher Payne, which must be received prior to the Annual Meeting. If your shares are held by your broker, you should follow the instructions provided by your broker.

What constitutes a quorum for purposes of the Annual Meeting? To carry on business at the Annual Meeting, we must have a quorum. A quorum is present when a majority of the shares entitled to vote, as of the Record Date, are represented in person or by proxy. As of the Record Date, 5,990,052 shares of our common stock must be represented in person or by proxy to have a quorum. Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker) or if you vote in person at the Annual Meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is not a quorum at the Annual Meeting, our stockholders may adjourn the meeting.

Who pays for this solicitation? The expense of preparing, printing and mailing this proxy statement and the accompanying material will be borne by the Company. Solicitation of individual stockholders may be made by mail, personal interviews, telephone, facsimile, electronic delivery or other telecommunications by directors, officers and regular employees of the company who will receive no additional compensation for those activities. Upon request, we will also reimburse brokerage houses and other custodians, nominees, and fiduciaries for their reasonable out-of-pocket expenses for forwarding solicitation material to beneficial owners.

What happens if other business not discussed in this proxy statement comes before the meeting? The Company does not know of any business to be presented at the Annual Meeting other than the proposals discussed in this proxy statement. If other business comes before the meeting and is proper under Delaware law, the Company representatives will use their discretion in casting all of the votes that they are entitled to cast.

Do I have Dissenters' Rights of Appraisal? Catalyst stockholders do not have appraisal rights under Delaware law or under the governing documents of Catalyst with respect to the matters to be voted upon at the Annual Meeting.

How can I find out the results of the voting at the Annual Meeting? Preliminary voting results will be announced at the Annual Meeting. Final voting results will be published in a Current Report on Form 8-K, which we will file within four business days of the Annual Meeting. A copy of the final voting results will also be made available on the "Investors" page of our website at www.catalystbiosciences.com or be obtained by contacting Fletcher Payne, our Chief Financial Officer, at (650) 871-0761, or the SEC, at (800) 732-0330, for the location of the nearest public reference room, or through the IDEA (formerly EDGAR) system at www.sec.gov.

Attending the Annual Meeting

How do I attend the Annual Meeting? The Annual Meeting will be held on June 13, 2019 at 8:00 a.m., Pacific Time, at our offices, located at 611 Gateway Boulevard, Suite 710, South San Francisco, California 94080.

When are stockholder proposals due for next year's annual meeting of the stockholders? Our stockholders are entitled to present proposals for action at a forthcoming meeting if they comply with the requirements of our bylaws and the rules established by the SEC.

Under Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), if you want us to include a proposal in the proxy materials for our 2020 annual meeting of stockholders, we must receive the proposal at our executive offices not later than January 3, 2020.

Our bylaws also establish an advance notice procedure for stockholders who wish to present a proposal before an annual meeting of stockholders but do not intend for the proposal to be included in our proxy materials. Stockholders must provide notice of any business that they wish to submit for consideration at the 2020 annual meeting to our executive offices no later than March 15, 2020 and no earlier than February 14, 2020. However, if the date of the 2020 annual meeting of stockholders advances by more than thirty (30) days or is delayed by more than sixty (60) days from June 13, 2020 (the first anniversary of the date of the Annual Meeting), the deadline will instead be not later than the close of business on the ninetieth (90th) day prior to such annual meeting or, if the first public disclosure of the date of such annual meeting is less than one hundred (100) days prior to such annual meeting, the close of business on the tenth (10th) day following such first public disclosure.

Proposals should be addressed to the attention of our Chief Financial Officer at our executive offices at 611 Gateway Boulevard, Suite 710, South San Francisco, California 94080, and we suggest that it be sent by certified mail, return receipt requested. Any proposal that you submit must comply with SEC rules.

Whom can I contact for further information? If you would like additional copies, without charge, of this proxy statement or if you have questions about the Annual Meeting, the proposals, or the procedures for voting your shares, you should contact our Chief Financial Officer, Fletcher Payne, at (650) 871-0761.

PROPOSAL 1 — ELECTION OF DIRECTORS

Pursuant to our certificate of incorporation and bylaws, our Board is divided into three classes with staggered three-year terms. The total number of authorized directors on our Board is currently fixed at eight. Effective as of the Annual Meeting, the number of authorized directors will be fixed at seven, and two directors will serve as Class I directors whose terms will expire at the annual meeting of stockholders to be held in 2022.

There are two nominees for Class I director at the Annual Meeting, Augustine Lawlor and Eddie Williams. Stephen A. Hill, M.D., who is currently serving as a Class I director, has elected not to stand for re-election at the Annual Meeting. Stockholders cannot submit proxies voting for a greater number of persons than the two nominees named in this Proposal 1. Each director to be elected will hold office until the annual meeting of stockholders to be held in 2022 and until his successor is elected and qualified or until the director's death, retirement, resignation or removal. Each nominee is currently a director of the Company and has agreed to serve if elected, and we have no reason to believe that any nominee will be unable to serve.

There are no family relationships between any of our directors, nominees or executive officers. There are also no arrangements or understandings between any director, nominee or executive officer and any other person pursuant to which he or she has been or will be selected as a director and/or executive officer.

Nominees for Class I Directors

| Name | Age | Class | Position |
|------------------|-----|-------|---|
| Augustine Lawlor | 65 | I | Chairman of the Board, Audit Committee Member, Compensation Committee Member, Governance and Nominating Committee Member |
| Eddie Williams | 63 | I | Compensation Committee Member, Governance and Nominating Committee Member |

Augustine Lawlor has served as a member of our Board from February 2006 and as Chairman of the Board from February 2018. Since August 2015, Mr. Lawlor has served on our Board as a Class I director. Since 2015, Mr. Lawlor has served as Chief Operating Officer of Leap Therapeutics, Inc., a Nasdaq-listed oncology company. He has been a Managing Director of HealthCare Ventures since 2000. From 1997 to 2000, he served as Chief Operating Officer of LeukoSite, Inc., a HealthCare Ventures III, IV and V company. Prior to joining LeukoSite, Mr. Lawlor was Chief Financial Officer and Vice President of Corporate Development for Alpha-Beta Technology. He has held similar positions at both BioSurface Technology and Armstrong Pharmaceuticals. Mr. Lawlor was previously a management consultant with KPMG. He is currently a director of biopharmaceutical companies Cardiovascular Systems, Inc., which is listed on Nasdaq, and Mosaic Biosciences, Inc. Mr. Lawlor has previously served as a director of Human Genome Sciences, which has since been acquired by GlaxoSmithKline and Replidyne, Inc. Mr. Lawlor received his Master's in Public and Private Management from Yale University.

Mr. Lawlor brings an important insight and knowledge to the Board based on his experience as a successful venture capitalist, service on the boards of public and private companies, and roles in commercial and business development in the pharmaceutical and biotechnology industries.

Eddie Williams has served on our Board as a Class I director since January 2018. Mr. Williams was most recently Senior Vice President of biopharmaceuticals at Novo Nordisk Inc., where he was responsible for the general management of all aspects of the biotechnology business for the U.S. in three therapeutic areas, including hemophilia. Prior to Novo Nordisk, Mr. Williams was Vice President of sales in the Respiratory and Dermatology Business Unit at Novartis Pharmaceuticals Corp., where he ran all sales aspects of the respiratory and dermatology businesses. Before joining Novartis, Mr. Williams held numerous sales and marketing positions

of increasing responsibility for more than 20 years at Pharmacia & Upjohn Company (acquired by Pfizer in 2002). Mr. Williams served on the board of Biotechnology Innovation Organization (BIO), the National Sales Network, Basic Supply Company, Inc., has been recognized as Industry Leader of the Year by the National Hemophilia Foundation, and chaired fundraising for the Boys & Girls Club of Trenton/Mercer County. Mr. Williams earned his B.S. in biology and chemistry from Marshall University.

Mr. William's breadth of experience with pharmaceutical and biotechnology companies, together with his service as a director for another biopharmaceutical company, make him suited to serve on the Board.

Continuing Directors

| Name | Age | Class(1) | Position |
|--------------------------|-----|----------|---|
| Nassim Usman, Ph.D. | 59 | III | President and Chief Executive Officer |
| Errol B. De Souza, Ph.D. | 65 | III | Compensation Committee Chair, Science and Technology Committee Member |
| Jeff Himawan, Ph.D. | 54 | П | Governance and Nominating Committee Chair, Compensation Committee and Audit Committee Member, Science and Technology Committee Member |
| Andrea Hunt | 59 | II | Audit Committee Member, Science and Technology Committee Member |
| John P. Richard | 61 | П | Audit Committee Chair, and Governance and Nominating Committee Member |

(1) The terms of Class II directors will expire at the 2020 annual meeting. The terms of Class III directors will expire at the 2021 annual meeting.

Nassim Usman, Ph.D. has served as Chief Executive Officer and a member of our Board from February 2006. Since August 2015, Dr. Usman has served as our President and Chief Executive Officer and as a Class III director. Dr. Usman is currently a Venture Partner at Morgenthaler Ventures. Prior to joining Morgenthaler in 2005, he was Senior Vice President and Chief Operating Officer at Sima Therapeutics Inc., which was subsequently acquired by Merck, from 2004 to 2005, and held various R&D positions at both Sima and Ribozyme Pharmaceuticals, including Vice President of R&D and Chief Scientific Officer, from 1992 to 2004. During his industrial career, Dr. Usman has overseen the entry of several drugs into clinical development, completion of multiple licensing deals with pharmaceutical and biotechnology companies and raised capital in both private and public financings. Prior to moving into the private sector in 1992, Dr. Usman was an NIH Fogarty and NSERC Postdoctoral Fellow and Scientist in the Departments of Biology and Chemistry at the Massachusetts Institute of Technology from 1987 to 1992. He has authored more than 70 scientific articles and is the named inventor in 130 issued patents and patent applications. Dr. Usman serves on the board of directors of Mosaic Biosciences, is a past director of Principia Biopharma, Osprey Pharmaceuticals, Archemix Corporation and atugen AG (now Silence Therapeutics) and served on the science advisory boards of RXi Pharmaceuticals and Noxxon Pharma AG. He received his B.Sc. (Honours) and Ph.D. in Organic Chemistry from McGill University. In his doctoral dissertation, he developed a method for the solid-phase synthesis of RNA that is widely used in science and in two marketed RNA products (MacugenTM& OnpattroTM).

Dr. Usman's role as our President and Chief Executive Officer, his prior role as Chief Executive Officer, his prior board service, and extensive experience and innovations in the field of biotechnology, particularly with companies engaged in clinical drug development, enable him to bring a unique perspective to the Board. In addition, Dr. Usman's academic expertise and accomplishments provide the Board with in-depth product and field knowledge.

Andrea Hunt has served on our Board as a Class II director since October 2017. Ms. Hunt served as the Vice President of New Product Gene Therapy, Neuroscience, Oncology and Ophthalmology with Shire from June 2016 until June 2017, where she developed and integrated disease area strategies for Shire's gene therapy platform, Neuroscience, Oncology and Ophthalmology franchises. She previously served as the Vice President — Global Franchise Head for Blood Disorders with Baxalta from June 2015 to June 2016 before it was acquired by Shire. From 1988 to 2015, Ms. Hunt served in various roles with Baxter Healthcare, most recently as Vice President — Lead BAX855 and Gene Therapy in the Biosciences division from 2014 to June 2015. Ms. Hunt serves on the board of OX2 Therapeutics, Ryan Banks Academy and is an advisor to Cell One Partners. She previously served as a board member of the Alliance for Regenerative Medicine and was an advisor to the Angiogenesis Foundation. Ms. Hunt received an M.B.A. from the University of Michigan at Ann Arbor and a B.S. in Hospital Dietetics and B.A. in Foods & Nutrition from the University of Illinois at Urbana-Champaign.

Ms. Hunt's breadth of experience with pharmaceutical and biotechnology companies, together with her service as a director for another biopharmaceutical company, make her suited to serve on the Board.

Errol B. De Souza, Ph.D. has served as a member of the Board from January 2004 and, since August 2015, Dr. De Souza has served on our Board as a Class III director. Dr. De Souza is currently President, CEO and a member of the board of directors of Neuropore Therapies, Inc. a privately held biotechnology company. From March 2010 until January 2016, Dr. De Souza served as President and Chief Executive Officer of Biodel Inc., a specialty pharmaceutical company. From April 2009 to March 2010, Dr. De Souza was a pharmaceutical and biotechnology consultant. From April 2003 to March 2009, he served as President and Chief Executive Officer of Archemix Corporation, a privately held biopharmaceutical company. Dr. De Souza currently serves as Chairman of the board of directors of the publicly-traded company Bionomics Ltd. Within the past five years, he served on the board of directors of each of the publicly-traded companies Biodel, Inc., IDEXX Laboratories, Inc. and Palatin Technologies, Inc. Dr. De Souza brings to the Board substantial experience as an executive in the pharmaceutical industry, having served as President and Chief Executive Officer of Synaptic Pharmaceutical Corp. until its sale to H. LundbeckA/S, in addition to Biodel and Archemix. Over Dr. De Souza's career, he has also served in a number of high-ranking research and development roles, including Senior Vice President and Head of Global Lead Generation for Hoechst Marion Roussel and Senior Vice President and U.S. head of drug innovation and approval following that company's merger with Rhône-Poulenc to form Aventis (now Sanofi-Aventis) and Co-Founder, Executive Vice President of Research and Development and Director at Neurocrine Biosciences, Inc.

These experiences, together with his service as a director for other biopharmaceutical companies, will enable Dr. De Souza to contribute valuable insight to the Board regarding pharmaceutical portfolio development and management from both large company and emerging company perspectives.

Jeff Himawan, Ph.D. has served as a member of our Board from December 2008 and since August 2015 as a Class II director. Dr. Himawan is a Managing Director at Essex Woodlands Health Ventures, a healthcare focused venture capital firm, where he previously served as a Partner from 2001 to 2004 and as an Adjunct Partner from 1999 to 2001. Since 2016, Dr. Himawan has served as a managing director of Park Lane Ventures. He has over 20 years of experience as a scientist, entrepreneur and venture capitalist. Dr. Himawan was a co-founder and Managing Director of Seed-One Ventures, LLC, a venture capital firm that specializes in the initial formation, financing and early operational development of technology-based companies, from 1996 to 2001. From 1983 to 1996, Dr. Himawan was a scientist in academic and industrial settings. He currently serves as a director of MediciNova and Horizon Pharma, two publicly traded companies. He has previously served as a director of Iomai, a publicly traded company, as well as Complete Genomics, OMT Therapeutics, Ception Therapeutics and Symphogen. Dr. Himawan received his B.S. from Massachusetts Institute of Technology and his Ph.D. from Harvard University.

Dr. Himawan's extensive experience in the biotechnology industry, considerable service on both public and private boards of directors, and background in corporate finance and raising capital will enable him to contribute important strategic insight to the Board.

John P. Richard has served as a member of our Board from November 2002, and he served as Chairman of the Board from January 2014 until August 2015. Since August 2015, Mr. Richard has served as a member of the Board as a Class II director. Mr. Richard is the co-founder and head of corporate development at Mereo BioPharma Group plc. and has served as a non-executive director for the life science investment firm Phase4 Partners since March 2011 and has previously served as an Operating Partner and Venture Partner at Phase4 Partners. From 2005 until 2015 he was also a Managing Director of Georgia Venture Partners, a seed venture capital firm that focuses on the biotechnology industry. In addition, Mr. Richard has served as a senior business advisor to a number of biotechnology companies as well as a consultant to portfolio companies of Georgia Venture Partners and Phase4 Ventures. Mr. Richard has been a director of the publicly-traded company Vaxart, Inc. since February 2018, and had previously served as a director of the predecessor company Aviragen since August 2013. Mr. Richard brings to the Board extensive business development experience, having led that function at three separate life science companies and played a primary role in establishing numerous pharmaceutical alliances.

In addition, the breadth of Mr. Richard's current roles will enable him to view issues that the combined company faces from a variety of perspectives, including as an executive, investor, director and business development professional.

Required Vote

The two nominees receiving the highest number of affirmative "FOR" votes shall be elected as Class I Directors. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the two nominees named above. If any nominee becomes unavailable for election as a result of an unexpected occurrence, shares that would have been voted for such nominee will instead be voted for the election of a substitute nominee proposed by our Board and its Governance and Nominating Committee. Under applicable rules, brokers are prohibited from giving proxies to vote on elections of directors unless the beneficial owner of such shares has given voting instructions on the matter. This means that if your broker is the record holder of your shares, you must give voting instructions to your broker with respect to the two nominees in this Proposal 1 if you want your broker to vote your shares on the matter. Otherwise, your shares will be treated as broker non-votes. Broker non-votes will have no effect on the outcome of the vote.

Recommendation

The Board recommends a vote FOR each nominee named in Proposal 1.

CORPORATE GOVERNANCE

Board and Leadership Structure

In accordance with our certificate of incorporation and bylaws, the Board currently consists of eight directors and, effective as of the Annual Meeting, will consist of seven directors. The Board is currently divided into three staggered classes, with one class to be elected at each annual stockholders' meeting of the Company to serve for a three-year term. The term of the Class I directors is set to expire upon the election and qualification of successor directors at the Annual Meeting, and the terms of the Class II and Class III directors will expire upon the election and qualification of successor directors at the annual stockholders' meetings in 2020 and 2021, respectively.

Our current directors are:

- · Class I directors (term ending at the Annual Meeting): Stephen A. Hill, M.D., Augustine Lawlor and Eddie Williams;
- Class II directors (term ending at the annual meeting of stockholders to be held in 2020): Andrea Hunt, John P. Richard and Jeff Himawan, Ph.D.; and
- Class III directors (term ending at the annual meeting of stockholders to be held in 2021): Errol B. De Souza, Ph.D. and Nassim Usman, Ph.D.

There are no family relationships among any of our current directors and executive officers, and there are no family relationships among any of the proposed directors.

The Board and each of its committees are chaired by directors whom the Board has determined meet the applicable listing standards of Nasdaq.

The roles of Chief Executive Officer and Chairman of the Board are held by separate individuals. This separation of roles enables our Chief Executive Officer to focus on his core responsibility of leading and managing our operations and day-to-day performance, consistent with strategic direction provided by the Board, and our Chairman of the Board to focus on leading the Board in its fundamental role of providing guidance to, and independent oversight of, our management.

Director Independence

Nasdaq's listing standards and Catalyst's Corporate Governance Guidelines require that the Board consist of a majority of independent directors, as determined under the applicable Nasdaq listing standard. The Board, consistent with the determination of its Governance and Nominating Committee, has determined that each of Mr. Lawlor, Ms. Hunt, Mr. Williams, Dr. De Souza, Dr. Himawan and Mr. Richard qualify as an independent director. In addition, as further required by Nasdaq rules, the Board, consistent with the determination of its Governance and Nominating Committee, has made a subjective determination as to each independent director that no relationships exist which, in the opinion of the Board, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In making these determinations, our directors reviewed and discussed information provided by our directors and us with regard to each director's business and personal activities as they may relate to us and our management.

Role of the Board in Risk Oversight

The Board is involved in our risk oversight in multiple ways. For example, in determining whether and under what circumstances we will engage in financing transactions or enter into strategic alliances and collaborations, the Board is involved in our management of risks related to our financial condition or of the risks inherent in drug development and commercialization. In addition, the Board routinely receives at its meetings business

updates from various members of management. These updates may identify matters that have emerged within that member of management's scope of responsibility that involve operational, financial, legal or regulatory risks and, in these cases, the Board's risk oversight role is to provide guidance to management.

The Board also exercises a risk oversight role through its Audit Committee, Compensation Committee and Governance and Nominating Committee, each of which is structured to include only independent directors and is separately chaired. Each such committee provides regular reports of its actions to the full Board. In particular, as noted above, the Audit Committee is responsible for discussing our exposure to material risks and the adequacy of our risk management activities with management and our independent registered public accounting firm. The Audit Committee's primary emphasis is financial risk, including our internal control over financial reporting, and it reviews information received from our independent registered public accounting firm as to the effectiveness of our internal control over financial reporting and from other third parties in support of management's assessment of the effectiveness of our internal control over financial reporting. The Audit Committee also oversees our management of exposure to certain financial risks through its periodic review of our investment policy and the allocation of our investment portfolio. Beyond the Audit Committee, the Compensation Committee is responsible for considering whether our compensation programs and practices are reasonably likely to have a material adverse effect on us.

Contacting the Board of Directors

The Board will receive and review written communications submitted by stockholders to the attention of the Board. The Chairman of the Governance and Nominating Committee is primarily responsible for monitoring communications from stockholders and for providing copies or summaries to the other directors as he considers appropriate.

Stockholders who wish to send communications on any topic to the Board should address such communications to the Board, c/o Fletcher Payne, Chief Financial Officer, Catalyst Biosciences, Inc., 611 Gateway Boulevard, Suite 710, South San Francisco, California 94080. Mr. Payne will forward all communications addressed to the Board to the Chairman of the Governance and Nominating Committee. You should indicate on your correspondence that you are a Catalyst stockholder.

Corporate Governance Guidelines

The Board has adopted Corporate Governance Guidelines that address a number of matters applicable to directors, including, as examples, independence, qualification standards, compensation, conduct and frequency of meetings, executive sessions and management evaluation and succession. You can find our Corporate Governance Guidelines on the "Investors" page of our website, www.catalystbiosciences.com, under the "Corporate Governance" tab.

Code of Business Conduct and Ethics

We have adopted the Catalyst Biosciences, Inc. Code of Business Conduct and Ethics that applies to all officers, directors and employees. Our Code of Business Conduct and Ethics is available on the "Investors" page of our website, www.catalystbiosciences.com under the heading "Governance Highlights." If we make any substantive amendments to our Code of Business Conduct and Ethics or grant any waiver from a provision of the Code of Business Conduct and Ethics to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on the "Investors" page of our website at www.catalystbiosciences.com under the heading "Governance Highlights." We intend to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding amendment to, or waiver from, a provision of our Code of Business Conduct and Ethics by posting such information on our website at the address and location specified above.

The Board and its Committees

In 2018, the Board met seven (7) times. Each of our directors attended at least 80% of the aggregate number of meetings of the Board and the committees on which he or she served. Our Corporate Governance Guidelines provide that our directors are also expected to attend annual meetings of stockholders. All of our directors attended the 2018 annual meeting of stockholders. The Board currently has the following committees: an Audit Committee, a Compensation Committee, a Governance and Nominating Committee and a Science and Technology Committee.

Audit Committee

Catalyst's Audit Committee generally assists the Board in its oversight of Catalyst's accounting, financial reporting and internal control functions, the audit of Catalyst's financial statements and internal control over financial reporting and the review of Catalyst's interim financial statements. In 2018, the Audit Committee met five (5) times. The Audit Committee has a written charter approved by the Board that is compliant with the standards of Nasdaq. A copy of the Audit Committee charter is available on the "Investors" page of our website at www.catalystbiosciences.com under the heading "Governance Highlights." The responsibilities and activities of the Audit Committee are described in greater detail in the "Report of the Audit Committee" and include the following:

- the appointment, compensation, retention and oversight of any independent registered public accounting firm that Catalyst engages to issue an audit report, or to perform other audit, review or attest services, for its financial statements, and evaluating auditor independence;
- receiving and reviewing reports of management and the independent registered public accounting firm regarding the annual audit process, as well as the review process for its interim financial statements;
- · reviewing with management significant accounting issues, policies relating to its financial statements and its cash management program;
- discussing with management and the independent registered public accounting firm its exposure to material risks and the adequacy of its risk management activities;
- reviewing management's assessment of the effectiveness of, and its independent registered public accounting firm's report on, its internal
 control over financial reporting;
- · monitoring the rotation of partners of the independent registered public accounting firm on our engagement team as required by law;
- approving, to the extent required by applicable law or Nasdaq listing standards or by its related person transactions policy, related person transactions;
- establishing procedures for the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or auditing matters;
- · responding to any report of evidence of a material violation of the securities laws or breach of fiduciary duty that it receives; and
- · preparing the report of the audit committee required by applicable SEC rules to be included in its annual proxy statement.

During 2018, the Audit Committee consisted of Mr. Richard, who served as Chairman, Dr. Himawan, Mr. Lawlor, and Ms. Hunt who was appointed to the Audit Committee effective as of April 9, 2018. As required by the Nasdaq rules, the members of the Audit Committee each qualify as "independent" under special standards established for members of audit committees. To qualify as "independent" to serve on the Audit Committee, the Nasdaq rules and the applicable rules of the SEC require that a director does not accept any consulting, advisory, or other compensatory fee from Catalyst, other than for service as a director, or be an affiliated person of the

Company. The Board has concluded that the current composition of the Audit Committee meets the requirements for independence under the rules and regulations of Nasdaq and of the SEC. In accordance with SEC rules, the Audit Committee also includes at least one member who is determined by the Board to meet the qualifications of an "audit committee financial expert." Mr. Lawlor and Mr. Richard are the directors who have been determined by the Board to be the audit committee financial experts. The designation does not impose upon Mr. Lawlor or Mr. Richard any duties, obligations or liability that are greater than are generally imposed on each of them as members of the Audit Committee and the Board, and each of their designations as an audit committee financial expert pursuant to this SEC requirement does not affect the duties, obligations or liability of any other member of the Audit Committee or the Board.

Compensation Committee

In 2018, the Compensation Committee met three (3) times. The Compensation Committee has a written charter approved by the Board that is compliant with the standards of the Nasdaq. The Compensation Committee reviews and reassesses the adequacy of its charter on an annual basis. A copy of the Compensation Committee charter is available on the "Investors" page of our website at www.catalystbiosciences.com under the heading "Governance Highlights." Effective March 2017, the responsibilities of the Compensation Committee include the following:

- reviewing periodically Catalyst's compensation philosophy and the adequacy of compensation plans and programs for its executive officers and other employees;
- the appointment, compensation and oversight of any compensation expert, legal counsel or other adviser that the Compensation Committee determines to engage and the consideration of factors relevant to such expert's, counsel's or adviser's independence;
- · reviewing the performance of its Chief Executive Officer and establishing the compensation of all of its executive officers;
- · approving employment, severance and change in control agreements, and any amendments, for Catalyst's executive officers;
- administering Catalyst's 2015 Stock Incentive Plan, as amended from time to time, and any other stock-based plans, as well as other
 employee benefit and incentive plans;
- assessing annually any risks associated with its compensation policies and practices;
- reviewing and discussing with management its Compensation Discussion and Analysis disclosure and formally recommending to the Board that it be included in its annual report on Form 10-K (either directly or by incorporation by reference to its annual proxy statement);
- making a recommendation to the Board with respect to the Board's recommendation to its stockholders on any proposal that its stockholders approve the compensation of its Named Executive Officers on an advisory basis;
- making a recommendation to the Board, at least once every six years, whether to submit the compensation of its Named Executive Officers
 to an advisory vote of its stockholders every one, two or three years;
- preparing the report of the Compensation Committee required by applicable SEC rules to be included in its annual report on Form 10-K (either directly or by incorporation by reference to its annual proxy statement); and
- periodically evaluating and making recommendations to the Board concerning the compensation of non-employee directors.

During 2018, the Compensation Committee consisted of Dr. De Souza, who served as Chairman, Dr. Himawan, Mr. Lawlor and Mr. Williams, who was appointed to the Committee on April 9, 2018. Dr. Selick served as

Chairman of the Compensation Committee until his resignation from the Board on February 15, 2018. To qualify as independent to serve on the Compensation Committee, the Nasdaq rules require a director not to accept any consulting, advisory, or other compensatory fee from the Company, other than for service on the Board, and that the Board consider all factors specifically relevant to determining whether a director has a relationship to the Company which is material to that director's ability to be independent from management in connection with the duties of a Compensation Committee member, including, but not limited to, the source of compensation of such director, and whether such director is affiliated with the Company, a subsidiary of the Company or an affiliate of a subsidiary of the Company. The Board has concluded that the composition of the Compensation Committee meets the requirements for independence under the rules and regulations of Nasdaq and of the SEC.

In addition, the Compensation Committee, from time to time, retains independent compensation consultants to assist it with assessing the competitiveness of executive and Board compensation. In April 2017, the Compensation Committee retained Radford, an Aon Hewitt company ("<u>Radford</u>"), as an independent compensation consultant. The Compensation Committee determined, based on its review of all relevant factors, including those set forth in Rule 10C-1b(4)(i) through (iv) under the Exchange Act, that the work of Radford has not created any conflict of interest. The Compensation Committee has re-engaged Radford as an independent compensation consultant.

Compensation Committee Interlocks and Insider Participation

None of the directors who served on our Compensation Committee during the fiscal year ended December 31, 2018 was an officer within the meaning of Rule 3b-2 under the Securities Exchange Act of 1934, or an employee of the Company during or prior to the fiscal year ended December 31, 2018 nor did any of such directors have any relationship during the past year that would have been required to be disclosed pursuant to Item 404 of Regulation S-K. None of our executive officers currently serve, or in the past year have served, as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more executive officer serving on our Board or Compensation Committee.

Governance and Nominating Committee

During 2018, the Governance and Nominating Committee consisted of Dr. Himawan, who served as Chairman, Mr. Lawlor, Mr. Richard and Mr. Williams, who was appointed to the Committee on April 9, 2018. Dr. Selick served as a member of the Governance and Nominating Committee until his resignation from the Board on February 15, 2018. In the fiscal year ended December 31, 2018, the Governance and Nominating Committee met one time. As required by the Nasdaq rules, the members of the Governance and Nominating Committee each qualified as "independent" under special standards established by Nasdaq for members of the committee. The Governance and Nominating Committee has a written charter approved by the Board that is compliant with the standards of Nasdaq. A copy of the Governance and Nominating Committee charter is available on the "Investors" page of our website at www.catalystbiosciences.com under the heading "Governance Highlights." Effective March 2017, the responsibilities of the Governance and Nominating Committee include the following:

- identifying individuals qualified to serve as directors and committee members, recommending to the Board nominees for election at its annual stockholders' meetings and recommending to the Board individuals to fill vacancies on the board;
- making recommendations to the Board concerning the criteria for membership on the Board and the size, composition, chairmanship and compensation of the Board and its committees;
- considering whether and how it takes into account diversity in identifying nominees;
- monitoring and making recommendations to the Board regarding corporate governance matters;
- · advising the Board on corporate governance matters generally; and
- conducting an annual review of the performance of the Board and its committees.

The Governance and Nominating Committee operates based on the belief that the backgrounds and qualifications of the directors as a group provide a significant breadth and diversity of experience, knowledge and abilities. In considering whether to recommend any particular candidate for inclusion in Catalyst's slate of recommended nominees, the Governance and Nominating Committee applies certain criteria found in the Corporate Governance Guidelines. In particular, each nominee should possess:

- a reputation for integrity, honesty and adherence to high ethical standards;
- sound judgment and a willingness and ability to contribute positively to decision-making processes;
- a commitment to understand Catalyst and its industry and to regularly attend and participate in meetings of the Board and, as applicable, its committees;
- the interest in and ability to understand sometimes conflicting interests of various constituencies, such as stockholders, employees, governmental or regulatory bodies, creditors and the general public, and to act in the interests of all stockholders; and
- no actual or apparent conflict of interest that would impair the ability to represent the interests of all stockholders and to fulfill the responsibilities of a director.

The Governance and Nominating Committee does not assign specific weights to particular criteria, and no particular criterion is a prerequisite for a nominee.

The Governance and Nominating Committee recommends to the Board individuals to be nominated for election as directors. In considering an incumbent director as a nominee, the Governance and Nominating Committee considers his or her prior contributions to the functioning of the Board and, as applicable, its committees. The Governance and Nominating Committee may also receive recommendations for nominees from members of the Board or management and may from time to time engage a third-party search firm to help identify potential nominees. If a candidate is identified, the Governance and Nominating Committee evaluates his or her qualifications and other biographical information, taking into account the backgrounds and qualifications of the continuing members of the Board and the criteria included in Catalyst's Corporate Governance Guidelines. Members of the Governance and Nominating Committee and the Chief Executive Officer then interview the candidate or, if multiple candidates are identified, select candidates for further consideration. Following discussion of the candidates identified and evaluated, the Governance and Nominating Committee recommends to the Board a list of nominees for election.

Stockholders may recommend individuals for consideration by the Governance and Nominating Committee as potential nominees for director by submitting their names, together with a comprehensive written resume of each potential nominee's business experience and background and a signed consent stating that he or she is willing to be considered as a nominee and, if nominated and elected, will serve as a director, to Governance and Nominating Committee of the Board of Directors, c/o Fletcher Payne, Chief Financial Officer, Catalyst Biosciences, Inc., 611 Gateway Boulevard, Suite 710, South San Francisco, California 94080. The submission must also include a statement as to whether the stockholder, or, if the recommendation is being made by a group of stockholders, whether the group of stockholders, has beneficially owned more than 5% of our common stock for at least one year as of the date the recommendation is made. Assuming that the required information has been provided by the deadline that applies for stockholder proposals to be included in the proxy materials for our 2019 annual meeting of stockholders as specified above under "When are stockholder proposals due for next year's annual meeting of the stockholders?" the committee will evaluate stockholder-recommended candidates using substantially the same process and applying substantially the same criteria as described above.

At the Annual Meeting, stockholders will be asked to consider the election of Mr. Lawlor and Mr. Williams, each of whom currently serves on the Board. Mr. Lawlor and Mr. Williams were recommended to the Board for nomination by the current Governance and Nominating Committee.

Science and Technology Committee

Commencing in January 2016, we formed a Science and Technology Committee. During 2018, members of the Science and Technology Committee were Dr. Hill, who served as Chairman, Dr. De Souza, Dr. Himawan and Ms. Hunt. Specific responsibilities of the Science and Technology Committee include:

- assessing information provided by management regarding our research and development activities, initiatives and programs and periodically reporting to the Board on such matters; and
- discussing and reporting to the Board on significant emerging technology issues and trends relevant to our areas of scientific or therapeutic focus

Report of the Audit Committee

The material in this Report of the Audit Committee is not "soliciting material," is not deemed "filed" with the SEC, and is not to be incorporated by reference into any filing of Catalyst Biosciences, Inc. under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language contained in such filing.

The Audit Committee has reviewed the Company's audited consolidated financial statements for the fiscal year ended December 31, 2018 and discussed these financial statements with the Company's management and with EisnerAmper LLP, the Company's independent registered public accounting firm.

The Company's management is responsible for the preparation of the Company's financial statements and for maintaining an adequate system of disclosure controls and procedures and internal control for that purpose. The Company's independent registered public accounting firm is responsible for conducting an independent audit of the Company's annual financial statements in accordance with generally accepted accounting principles and issuing a report on the results of their audit. The Audit Committee is responsible for providing independent, objective oversight of these processes.

The Audit Committee has also discussed with EisnerAmper LLP the matters required to be discussed by the Public Company Accounting Oversight Board Auditing Standard No. 1301 (previously Auditing Standard No. 16), (Communications with Audit Committees), as adopted by the Public Company Accounting Oversight Board ("PCAOB").

The Audit Committee has received and reviewed the written disclosures and the letter from EisnerAmper LLP required by applicable requirements of the PCAOB regarding the independent accountant's communications with the audit committee concerning independence, and has discussed with EisnerAmper LLP its independence.

Based on the review and discussions referred to above, the Audit Committee recommended to the Board that the audited consolidated financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018 for filing with the Securities and Exchange Commission.

By the Audit Committee

John P. Richard (Chair) Augustine "Gus" Lawlor Jeff Himawan, Ph.D. Andrea Hunt

Certain Relationships and Related Party Transactions

Described below are the transactions and series of similar transactions since January 1, 2018 in which:

- transactions in which the amount involved exceeds the lesser of \$120,000 or one percent of the average of the smaller reporting company's total assets at year-end for the last two completed fiscal years; and
- any of the directors, executive officers, holders of more than 5% of capital stock (sometimes referred to as "5% stockholders" below) of the Company or any member of their immediate family had or will have a direct or indirect material interest (other than transactions described under the heading "Executive Compensation").

Strategic Research Collaboration with Mosaic Biosciences, Inc. ("Mosaic")

On October 24, 2017, the Company announced a strategic research collaboration with Mosaic to develop intravitreal anti-complement factor 3 (C3) products for the treatment of dry AMD and other retinal diseases. On December 21, 2018, the Company amended the collaboration agreement with Mosaic to, among other things, include certain additional products. According to the Mosaic collaboration agreement, as amended, the Company and Mosaic will co-fund the research and the Company will pay Mosaic a portion of any proceeds received from any license of products resulting from the collaboration. Dr. Usman, our Chief Executive Officer and a member of our board of directors, and Mr. Lawlor, a managing director of HealthCare Ventures VIII, L.P. and a member of our board of directors, are members of the board of directors of Mosaic. Mr. Lawlor may be deemed to indirectly beneficially own all of the shares of Mosaic held by Healthcare Ventures VIII, L.P. The transaction was reviewed by disinterested members of our board of directors and approved by our Audit Committee.

Executive Compensation and Employment Arrangements

Please see "Executive Compensation" for information on compensation arrangements with our executive officers and agreements with, and offer letters to, our executive officers containing compensation and termination provisions, among others.

Indemnification Agreements

The Company has entered into indemnification agreements with each of its directors and with each executive officer. Pursuant to the indemnification agreements, the Company has agreed to indemnify and hold harmless these directors and officers to the fullest extent permitted by the Delaware General Corporation Law. The agreements generally cover expenses that a director or officer incurs or amounts that a director or officer becomes obligated to pay because of any proceeding to which he or she is made or threatened to be made a party or participant by reason of his or her service as a current or former director, officer, employee or agent of the Company. The agreements also provide for the advancement of expenses to the directors and officers subject to specified conditions. There are certain exceptions to the Company's obligation to indemnify the directors and officers, including any intentional malfeasance or act where the director or officer did not in good faith believe he or she was acting in the Company's best interests, with respect to "short-swing" profit claims under Section 16(b) of the Exchange Act and, with certain exceptions, with respect to proceedings that he or she initiates.

Policies and Procedures Regarding Related Party Transactions

The Board has adopted a written policy pursuant to which each actual or proposed financial transaction, arrangement or relationship (including any indebtedness or guarantee of indebtedness) or series of similar financial transactions, arrangements or relationships, other than specified employment and compensatory matters, in which (i) the Company was or would be a participant, (ii) the amount involved exceeds \$120,000 and (iii) a "related person" (as defined under Item 404 of Regulation S-K) has a direct or indirect material interest, is submitted to the Audit Committee for its review and approval or, if applicable, ratification. These transactions, arrangements or relationships are known as "related person transactions."

Under the policy, our Chief Financial Officer and outside counsel consult regarding any proposed transaction, arrangement or relationship that is identified as a possible related person transaction. If they determine the Company desires to proceed with the proposed transaction, arrangement or relationship and the outside counsel determines, based on available information, that the proposed transaction may constitute a related person transaction, it is submitted to the Audit Committee for its consideration. The Audit Committee is to consider all available relevant facts and circumstances, including the benefits to the Company, the impact on a director's independence in the event the related person is a director (or a family member or entity affiliated with a director), the availability of other sources for comparable products or services, the proposed terms and the terms available to or from parties that are not related persons. Absent special circumstances, the Audit Committee may approve only those related person transactions that it determines to be in or not contrary to the best interests of the Company and its stockholders. No member of the Audit Committee may participate in any review, consideration or approval of any related person transaction with respect to which the member or any of his or her immediate family members is the related person.

EXECUTIVE COMPENSATION

Executive Officers

Our executive officers as of May 2, 2019, their positions and their respective ages on that date are:

| Name | Age | Position |
|--------------------------------------|-----|---------------------------------------|
| Nassim Usman, Ph.D. | 59 | President and Chief Executive Officer |
| Fletcher Payne | 56 | Chief Financial Officer |
| Howard Levy, M.B.B.Ch., Ph.D., M.M.M | 65 | Chief Medical Officer |

Our executive officers serve at the discretion of the board of directors, subject to rights, if any, under contracts of employment. There are no family relationships among any of our current directors and executive officers. Biographical information for Dr. Usman is provided in Proposal 1 — Election of Directors under the heading "Continuing Directors."

Fletcher Payne served as Catalyst Bio's Chief Financial Officer from January 2015 until the completion of the merger in August 2015. Since the merger, Mr. Payne has served as our Chief Financial Officer. Mr. Payne joined Catalyst Bio in a consulting capacity through Danforth Advisors LLC, where he worked as a consultant, until April 2015, when he became a Catalyst Bio employee. He has been a consulting Chief Financial Officer of CFP Advisory since November 2011, and from September 2008 to November 2011, Mr. Payne served as Chief Financial Officer of Pathwork Diagnostics. Mr. Payne has also served in senior financial positions at CytomX Therapeutics, Plexxikon Inc., Rinat Neuroscience Corporation, Dynavax Technologies Corporation, Cell Genesys, Abgenix, Sun Micro Systems, and IBM. Mr. Payne has over 20 years of experience helping life science companies achieve their business goals. His life science experience includes successful start-ups, initial public offerings, mergers, spin-outs, financings, business collaborations and working with R&D teams whose efforts have led to four products receiving FDA approval. Mr. Payne graduated with a B.S. in Finance from the Haas School of Business, University of California, Berkeley.

Howard Levy, M.B. B.Ch., Ph.D., M.M.M., joined us as our Chief Medical Officer in April 2016. Prior to joining us, from 2010 through April 2016, Dr. Levy had served as either a Chief Medical Officer or a consultant with various public and private biotechnology companies on clinical and drug development strategy and execution. In addition, Dr. Levy was the Senior Global Medical Program Director at CSL Behring in 2013, and he was the Senior Vice President and Chief Medical Officer at Inspiration Biopharmaceuticals, a company solely focused on innovation in hemophilia, in 2012. From 2008 to 2011, he served as Chief Medical Officer at Sangart, Inc., which was developing pegylated hemoglobin as an oxygen therapeutic agent and a treatment for sickle cell crisis. Prior to Sangart, from 2006 to 2008, Dr. Levy was Associate Vice President, Clinical Research, Medical and Regulatory Affairs, at Novo Nordisk and was responsible for a number of clinical research programs, including recombinant Factor VIIa. Earlier in his career, Dr. Levy was Clinical Research Physician and Medical Director, Acute Care in the U.S. Medical Division of Eli Lilly and Company supporting post-marketing clinical trials and medical affairs for recombinant Activated Protein C (Xigris) in severe sepsis and antiplatelet agents ReoPro and Ph.D. degrees from University of the Witwatersrand in Johannesburg, South Africa and an M.M.M. from Carnegie Mellon University's H. John Heinz III College.

Executive Compensation Table

In this Executive Compensation section, we refer to Dr. Usman, Dr. Levy and Mr. Payne, collectively, as our Named Executive Officers (the "Named Executive Officers"). Dr. Usman was our Chief Executive Officer and Mr. Payne and Dr. Levy were our next two highest compensated executive officers serving as of December 31, 2018.

Summary Compensation Table

The following table shows, for the fiscal years ended December 31, 2018 and 2017, compensation awarded to or paid to our Named Executive Officers.

| Name and principal position | Year | Salary (\$) | Bonus (\$)(1) | Stock Awards (\$)(2) | Option Awards (\$)(3) | Non-Equity Incentive Plan Compensation (\$) | All Other Compensation (\$)(4) | Total (\$) |
|--|------|----------------|---------------|----------------------------|-----------------------------|--|--------------------------------------|---------------|
| Nassim Usman, Ph.D. | 2018 | 480,800 | 240,400 | | 1,715,741 | _ | 5,372 | 2,442,313 |
| President and Chief Executive Officer | 2017 | 464,103 | 303,417 | _ | 1,062,381 | _ | 5,372 | 1,835,273 |
| Fletcher Payne | 2018 | 345,301 | 120,855 | _ | 501,228 | _ | 2,092 | 969,476 |
| Chief Financial Officer | 2017 | 335,244 | 152,536 | _ | 289,351 | _ | 2,092 | 779,223 |
| Howard Levy, M.B.B.Ch., Ph.D., M.M.M. | 2018 | 397,838 | 139,230 | _ | 658,462 | _ | 3,317 | 1,198,847 |
| Chief Medical Officer | 2017 | 386,250 | 175,744 | _ | 366,915 | _ | 3,317 | 932,226 |

- (1) The amounts in the column titled "Bonus" generally reflect discretionary cash payments made with respect to officer performance during the indicated year but paid during the first quarter of the following year.
- (2) The amounts in this column reflect the aggregate grant date fair value of restricted stock awarded during the year calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, Compensation Stock Compensation, or ASC 718, disregarding the potential for forfeitures, regardless of the period in which the corresponding compensation expense was recorded in accordance with ASC 718.
- (3) The amounts in this column reflect for each fiscal year shown the aggregate grant date fair value of stock options granted during the year calculated in accordance with ASC 718, disregarding the potential for forfeitures, regardless of the period in which the corresponding compensation expense was recorded in accordance with ASC 718. The amount in this column for Dr. Levy represents the grant date fair value of an employment inducement option, which was made outside of the Company's 2015 Stock Incentive Plan, as amended, and is intended to qualify as an employment inducement grant under Nasdaq Listing Rule 5635(c)(4).
- (4) The amounts in this column for Drs. Usman and Levy and Mr. Payne for 2018 and 2017 represent payment of life insurance premiums, long-term disability and other insurance-related reimbursements.

Employment Agreements

Each of our currently serving Named Executive Officers is party to an amended and restated employment agreement with us (as described below), as well as a standard confidential information and/or inventions assignment agreement, under which each of Dr. Usman, Mr. Payne and Dr. Levy agreed not to disclose our confidential information. In August 2018, we entered into amended and restated employment agreements with Dr. Usman, Mr. Payne and Dr. Levy. The employment agreements were amended and restated in order to, among other things, harmonize the provisions relating to: (i) severance without cause or as a result of constructive termination during the applicable change in control protection periods; and (ii) severance without cause or as a result of constructive termination during the applicable post-change in control severance periods. Other than as described herein, the material terms of the employment agreements, as previously disclosed by us, have not been revised.

Our board of directors or the compensation committee reviews each Named Executive Officer's base salary and target bonus opportunity from time to time to ensure compensation adequately reflects the Named Executive Officer's qualifications, experience, role and responsibilities.

Nassim Usman

Under our amended and restated employment agreement with Dr. Nassim Usman, our President and Chief Executive Officer Dr. Usman is entitled to an annual base salary, which is \$528,900 for the fiscal year ending December 31, 2019, and will also have the opportunity to earn an annual performance-based bonus of 50% of his base salary. Dr. Usman is eligible for our employee benefit plans including, but not limited to, life, disability insurance, medical, dental and vision insurance, and 401K and Section 125 Flexible Spending Accounts.

The amended and restated employment agreement provides that if Dr. Usman's employment is terminated without "cause" (as defined in the agreement) or as a result of "constructive termination," (as defined in the agreement), in each case outside of the "Change in Control Protection Period" (as defined below), he shall be entitled to receive, subject to certain conditions described in Dr. Usman's amended and restated employment agreement, the following:

- continued base salary for twelve (12) months after the termination (the "Usman Severance Period");
- · accelerated vesting of options that would otherwise have vested during the Usman Severance Period; and
- payment by the Company of the same portion of his monthly premium under COBRA as it pays for active employees until the close of the Usman Severance Period.

In addition, if Dr. Usman's employment is terminated without "cause" or as a result of "constructive termination," in each case during the six (6) month period prior to or the eighteen (18) month period following a "change in control" (as defined in the Company's 2018 Omnibus Incentive Plan, as amended from time to time, the "Change in Control Protection Period"), Dr. Usman would be eligible to receive, subject to certain conditions described in Dr. Usman's amended and restated employment agreement, the following:

- severance payments, equal to the sum of (a) 150% of his annual base salary and (b) 150% of his maximum annual performance-based bonus, paid in equal installments for eighteen (18) months after the termination (the "Usman Post-COC Severance Period");
- accelerated vesting of 100% percent of any unvested options; and
- payment by the Company of the same portion of his monthly premium under COBRA as it pays for active employees until the close of the Usman Post-COC Severance Period.

Fletcher Payne

Under our amended and restated employment agreement with Mr. Fletcher Payne, our Chief Financial Officer, Mr. Payne is entitled to an annual base salary, which is \$379,200 for the fiscal year ending December 31, 2019, and will also have the opportunity to earn an annual performance-based bonus of 35% of his base salary. Mr. Payne is eligible for our employee benefit plans including, but not limited to, life, disability insurance, medical, dental and vision insurance, and 401K and Section 125 Flexible Spending Accounts.

The amended and restated employment agreement provides that if Mr. Payne's employment is terminated without "cause" (as defined in the agreement) or as a result of "constructive termination," (as defined in the agreement), in each case outside of the Change in Control Protection Period, Mr. Payne would be eligible to receive, subject to certain conditions described in the amended and restated employment agreement, the following:

- continued base salary for nine (9) months after the termination (the "Payne Severance Period");
- · accelerated vesting of options that would otherwise have vested during the Payne Severance Period; and
- payment by the Company of the same portion of Mr. Payne's monthly premium under COBRA as it pays for active employees until the close of the Payne Severance Period.

In addition, if Mr. Payne's employment is terminated without "cause" or as a result of "constructive termination," in each case during the Change in Control Protection Period, Mr. Payne would be eligible to receive, subject to certain conditions described in the amended and restated employment agreement, the following:

- severance payments, equal to the sum of (a) 100% of Mr. Payne's annual base salary and (b) 100% of Mr. Payne's maximum annual performance-based bonus, paid in equal installments for twelve (12) months after the termination (the "Payne Post-COC Severance Period");
- accelerated vesting of 100% percent of any unvested options; and
- payment by the Company of the same portion of Mr. Payne's monthly premium under COBRA as it pays for active employees until the close of the Payne Post-COC Severance Period.

Howard Levy

Under our amended and restated employment agreement with Dr. Levy, our Chief Medical Officer, Dr. Levy is entitled to an annual base salary, which is \$419,500 for the fiscal year ending December 31, 2019. Dr. Levy will also have the opportunity to earn an annual performance-based bonus of 35% of his base salary. Dr. Levy is eligible for our employee benefit plans including, but not limited to, life, disability insurance, medical, dental and vision insurance, and 401K and Section 125 Flexible Spending Accounts.

The amended and restated employment agreement provides that if Dr. Levy's employment is terminated without "cause" (as defined in the agreement) or as a result of "constructive termination," (as defined in the agreement), in each case outside of the Change in Control Protection Period, Dr. Levy would be eligible to receive, subject to certain conditions described in the amended and restated employment agreement, the following:

- continued base salary for nine (9) months after the termination (the "Levy Severance Period");
- · accelerated vesting of options that would otherwise have vested during the Levy Severance Period; and
- payment by the Company of the same portion of Dr. Levy's monthly premium under COBRA as it pays for active employees until the close
 of the Levy Severance Period.

In addition, if Dr. Levy's employment is terminated without "cause" or as a result of "constructive termination," in each case during the Change in Control Protection Period, Dr. Levy would be eligible to receive, subject to certain conditions described in the amended and restated employment agreement, the following:

- severance payments, equal to the sum of (a) 100% of Dr. Levy's annual base salary and (b) 100% of Dr. Levy's maximum annual performance-based bonus, paid in equal installments for twelve (12) months after the termination (the "Levy Post-COC Severance Period");
- accelerated vesting of 100% percent of any unvested options; and
- payment by the Company of the same portion of Dr. Levy's monthly premium under COBRA as it pays for active employees until the close of the Levy Post-COC Severance Period.

Outstanding Equity Awards at December 31, 2018

| Name | Grant Date | Number of Securities Underlying Unexercised Option Exercisable(#) | Number of Securities Underlying Unexercised Option Unexercisable(#) | Option Exercise Price(\$) | Option Expiration Date |
|-------------------------------------|--|--|--|--|---|
| Nassim Usman, Ph.D. | 1/3/2013(1) 3/17/2009(1) 10/22/2015(1) 10/22/2015 7/11/2017 1/12/2018 7/30/2018 | 1,500 4,074 3,870 8,322 103,037 21,771 | 891 (2) 1,916 (2) 171,875 (5) 73,229 (6) 75,000 (7) | \$172.80 \$109.95 \$ 66.00 \$ 66.00 \$ 4.63 \$ 15.13 \$ 9.68 | 1/3/2023 3/17/2019 10/22/2025 10/22/2025 7/11/2027 1/12/2028 7/30/2028 |
| Fletcher Payne | 1/22/2015(1) 1/22/2015(1) 5/8/2015(1) 10/22/2015 10/22/2015 7/11/2017 1/12/2018 7/30/2018 | 488 162 800 3,870 1,553 28,066 5,958 | 155 (3) 891 (2) 351 (2) 46,875 (5) 20,042 (6) 25,000 (7) | \$114.00 \$114.00 \$ 90.45 \$ 66.00 \$ 4.63 \$ 15.13 \$ 9.68 | 1/22/2025 1/22/2025 10/22/2025 10/22/2025 7/11/2027 1/12/2028 7/30/2028 |
| Howard Levy M.B.B.Ch, Ph.D., M.M.M. | 4/18/2016 7/11/2017 1/12/2018 7/30/2018 | 4,447 27,743 7,563 | 2,219 (4) 59,375 (5) 25,437 (6) 35,000 (5) | \$ 22.80 \$ 4.63 \$ 15.13 \$ 9.68 | 4/18/2026 7/11/2027 1/12/2028 7/30/2028 |

- (1) These stock options were granted by the board of directors of Catalyst Bio on the grant dates listed but were assumed by the Company upon the closing of the merger on August 20, 2015 and converted into options to purchase common stock of the Company as described in the table.
- (2) The remaining portion of these options to purchase common stock vest at the rate of 1/48th of the number of total shares subject to the option on the 1st day of each month, with the final tranche vesting on September 1, 2019.
- (3) The remaining portion of these options to purchase common stock vest at the rate of 1/48th of the number of total shares subject to the option on the 1st of each month, with the final tranche vesting on August 20, 2019.
- (4) A quarter of the shares of common stock underlying this inducement option vested on April 18, 2017 and the remaining portion of the shares of common stock underlying this option shall vest at the rate of 1/48th of the number of total shares subject to the option monthly thereafter, with the final tranche vesting on April 18, 2020.
- (5) The remaining portion of these options to purchase common stock vest at the rate of 1/48th of the number of total shares subject to the option on the 15th day of each month, with the final tranche vesting on June 15, 2021.
- (6) The remaining portion of these options to purchase common stock vest at the rate of 1/48th of the number of total shares subject to the option on the 12th day of each month, with the final tranche vesting on January 12, 2022.
- (7) The remaining portion of these options to purchase common stock vest at the rate of 1/48th of the number of total shares subject to the option on the 13th day of each month, with the final tranche vesting on July 13, 2022.

Compensation Risk Management

We have considered the risk associated with our compensation policies and practices for all employees, and we believe we have designed our compensation policies and practices in a manner that does not create incentives that could lead to excessive risk taking that would have a material adverse effect on our Company.

Director Compensation

Pursuant to our non-employee directors' compensation policy (directors who are employees of the Company will not receive any compensation for their service on the board of directors), our non-employee directors are eligible to receive the following:

- Initial Equity Grants. Each non-employee director who joins the Board will receive an option to purchase 10,000 shares of common stock, which will vest monthly over three years, subject to continued service.
- Annual Retainers. Each non-employee director will receive an annual retainer for service on the Board consisting of an option to purchase 5,000 shares of the common stock, to be awarded at the Company's annual stockholders' meeting and which will vest over one year, in addition to annual cash retainers for service on the Board and committees of the Board, or for service as chair of the Board or such committees (inclusive of retainers for service as a member), as follows:

| Additional annual retainer fees for service as member or chair, as applicable, of: | Member | Chair |
|--|----------|----------|
| Board of Directors | \$40,000 | \$30,000 |
| Audit Committee | \$ 7,500 | \$15,000 |
| Compensation Committee | \$ 5,000 | \$10,000 |
| Governance and Nominating Committee | \$ 3,750 | \$ 7,500 |
| Science and Technology Committee | \$ 3,750 | \$ 7,500 |

Director Compensation for Fiscal Year 2018

The following table shows for the fiscal year ended December 31, 2018 certain information with respect to the compensation of our non-employee directors serving during 2018. For information regarding compensation paid to Dr. Usman, see the "Summary Compensation Table" on page 19.

| | Fees Earned or | Ontion | Stock | |
|---------------------------------|-------------------|------------------|---------|---------|
| | Paid in | Option Awards | Grants | Total |
| Name | Cash (\$) | (\$)(1)(2) | (\$)(3) | (\$) |
| Augustine Lawlor | 59,375 | 85,924 | 21,562 | 166,861 |
| Andrea Hunt | 51,406 | 85,924 | 6,406 | 143,736 |
| Eddie Williams(4) | 33,125 | 203,656 | 12187 | 248,968 |
| Errol B. De Souza | 39,688 | 85,924 | 13,438 | 139,050 |
| Harold E. Selick ⁽⁵⁾ | _ | 123,929(6) | _ | 123,929 |
| Jeff Himawan, Ph.D.(7) | | _ | | |
| John P. Richard | 56,562 | 85,924 | _ | 142,486 |
| Stephen A. Hill | 45,312 | 85,924 | _ | 131,236 |

⁽¹⁾ The amounts in this column reflect the aggregate grant date fair value of stock options granted during the fiscal year ended December 31, 2018 calculated in accordance with ASC 718, disregarding the potential for for

(2) The following table sets forth the aggregate number of option awards held by each non-employee director serving in 2018 as of December 31, 2018:

| NAME | Aggregate Number of Option Awards |
|---------------------|--------------------------------------|
| Augustine Lawlor | 16,500 |
| Andrea Hunt | 15,000 |
| Eddie Williams | 15,000 |
| Errol B. De Souza | 18,328 |
| Harold E. Selick(5) | 11,508(6) |
| Jeff Himawan, Ph.D. | _ |
| John P. Richard | 18,577 |
| Stephen A. Hill | 16,500 |

- (3) The amounts in this column reflect the board of director fees board members elected to receive in fully vested non-restricted common stock awards in lieu of cash compensation.
- (4) Mr. Williams joined Catalyst on January 1, 2018.
- (5) Dr. Selick resigned from the board of directors effective February 15, 2018.
- (6) The amount reported represents the incremental fair value for the modification of Dr. Selick's outstanding option awards in connection with his resignation, which modification included (i) acceleration of vesting of 3,334 shares of common stock subject to an option granted in July 2017 and (ii) an extension of the option exercise period for Dr. Selick's outstanding option grants.
- (7) Dr. Himawan has declined to receive any compensation for his service as a director.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of March 31, 2019 for:

- (1) each person or group of affiliated persons known by us to be the beneficial owner of more than 5% of our common stock;
- (2) each of our Named Executive Officers;
- (3) each of our directors; and
- (4) all current executive officers and directors as a group.

Applicable percentage ownership is based on 11,974,104 shares of common stock outstanding at March 31, 2019. We have determined beneficial ownership in accordance with SEC rules. The information does not necessarily indicate beneficial ownership for any other purpose. Under these rules, the number of shares of common stock deemed outstanding includes shares issuable upon exercise of options or warrants, or the conversion of convertible notes, held by the respective person or group that may be exercised or converted within 60 days after March 31, 2019. For purposes of calculating each person's or group's percentage ownership, stock options and warrants exercisable, and notes convertible, within 60 days after March 31, 2019 are included for that person or group, but not the stock options of any other person or group.

Unless otherwise indicated and subject to applicable community property laws, to our knowledge, each stockholder named in the following table possesses sole voting and investment power over the shares listed. Unless otherwise noted below, the address of each person listed in the table is c/o Catalyst Biosciences, Inc., 611 Gateway Boulevard, Suite 710, South San Francisco, CA 94080.

| Name | Number of Shares Owned and Nature of Beneficial Ownership | Percent of Class |
|--|--|------------------------|
| 5% or Greater Stockholders | | |
| Blackrock Fund Advisors | 846,529 (1) | 7.07% |
| 55 East 52nd Street, New York, NY 10055 | | |
| JFL Capital Management | 839,070 (2) | 7.01% |
| 2110 Ranch Road 620 S #341732, Lakeway, TX 78734 | | |
| Nantahala Capital Management LLC | 855,243 (3) | 7.14% |
| 19 Old Kings Highway S, Suite 200, Darien, CT 06820 | | |
| Wayne Barr Jr. (reporting group) | 873,500 (4) | 7.30% |
| 15378 Avenue of Science, San Diego, CA 92128 | | |
| Directors and Named Executive Officers | | |
| Nassim Usman, Ph.D | 181,035 (5) | 1.49 |
| Fletcher Payne | 57,621 (6) | * |
| Howard Levy, M.B.B.Ch., Ph.D., M.M.M. | 66,892 (7) | * |
| Augustine Lawlor | 88,216 (8)(9) | * |
| Andrea Hunt | 10,672 (10) | * |
| Eddie Williams | 10,699 (11) | * |
| Errol B. De Souza | 19,614 (12) | * |
| Jeff Himawan, Ph.D. | 81,762 (13) | * |
| John P. Richard | 18,376 (14) | * |
| Stephen A. Hill, M.D. | 17,463 (15) | * |
| All Directors and Executive Officers as a Group (10 persons) | 552,350 (16) | 4.59% |

- * Indicates less than 1% of class.
- (1) The information reported is based on a Schedule 13G filed with the SEC on February 8, 2019.
- (2) The information reported is based on a Schedule 13G filed with the SEC on February 11, 2019.
- (3) The information reported is based on a Schedule 13G filed with the SEC on February 14, 2019.
- (4) The information reported is based on a Schedule 13G filed with the SEC on March 1, 2019.
- (5) Consists of (i) 4,144 shares and one share issuable upon the exercise of warrants within 60 days held by the Usman Family Trust, of which Dr. Usman is a co-trustee with Susan L. Usman, (ii) 1,168 shares held in IRA, (iii) 6,079 shares and (iv) 169,643 shares issuable upon the exercise of options within 60 days.
- (6) Consists of (i) 501 shares held by Charles and Nancy Payne 2000 Trust, of which Mr. Payne is a trustee, (ii) 666 shares held in IRA, (iii) 2,564 shares held directly, and (iii) 53,890 shares of common stock subject to stock options which are vested and exercisable within 60 days.
- (7) Consists of (i) 11,694 shares held directly and (ii) 55,198 shares of common stock subject to stock options which are vested and exercisable within 60 days.
- (8) Consists of (i) 2,732 shares held directly and (ii) 16,083 shares of common stock subject to stock options which are vested and exercisable within 60 days.
- (9) Consists of 69,401 shares owned by Healthcare Ventures VIII, L.P. ("HCVVIII"), which was based upon information, as of November 30, 2018, supplied by our transfer agent, American Stock Transfer & Trust Company, LLC. Each of James H. Cavanaugh, Ph.D., Harold R. Werner, John W. Littlechild, Christopher Mirabelli, Ph.D., and Augustine Lawlor are the managing directors of HealthCare Ventures VIII, LLC ("HCPVIIILLC"), the general partner of HealthCare Partners VIII, L.P. ("HCPVIII"), which is the general partner of HCVVIII.
- (10) Consists of 811 shares and 9,861 shares of common stock subject to stock options which are vested and exercisable within 60 days.
- (11) Consists of (i) 1,672 shares and (ii) 9,027 shares of common stock subject to stock options which are vested and exercisable within 60 days.
- (12) Consists of (i) 1,944 shares, and (ii) 17,911 shares of common stock subject to stock options which are vested and exercisable within 60 days.
- (13) The information reported is based upon report, as of January 3, 2019, supplied by our transfer agent, American Stock Transfer & Trust Company, LLC. Essex Woodlands Health Ventures VIII, L.P. (the "GP Partnership") is the general partner of Essex VIII, Essex VIII-A, and Essex VIII-B. Essex Woodlands Health Ventures VIII, LLC ("Essex VIII LLC") is the general partner of the GP Partnership. Essex VIII LLC, as the general partner of the GP Partnership, may be deemed to have sole voting investment power with respect to 81,762 shares comprising of (i) 78,622 shares and (ii) 3,140 shares that may be purchased upon the exercise of warrants within 60 days. Essex VIII LLC disclaims beneficial ownership to 81,762 shares comprising of (i) 78,622 shares and (ii) 3,140 shares that may be purchased upon the exercise of warrants within 60 days, except to the extent of its pecuniary interest. Dr. Jeff Himawan, Marty Sutter, Petri Vainio, Immanuel Thangaraj, Ron Eastman, Steve Wiggins, and Guido Neels (the "Managers") may also be deemed to have shared dispositive power and voting power with respect to 81,762 shares comprising of (i) 78,622 shares and (ii) 3,140 shares that may be purchased upon the exercise of warrants within 60 days. The GP Partnership disclaims beneficial ownership of the shares except to the extent of its pecuniary interest therein.
- (14) Consists of (i) 216 shares, and (ii) 18,160 shares of common stock which are subject to stock options vested and exercisable within 60 days.
- (15) Consists of (i) 1,380 shares, and (ii) 16,083 shares of common stock subject to stock options which are vested and exercisable within 60 days.
- (16) Includes 368,997 shares of common stock subject to stock options which are vested and exercisable within 60 days.

PROPOSAL 2 — ADVISORY VOTE TO APPROVE EXECUTIVE COMPENSATION

The Dodd-Frank Wall Street Reform and Consumer Protection Act added Section 14A to the Exchange Act requiring that we provide our stockholders with the opportunity to vote to approve, on a nonbinding, advisory basis, the compensation of our Named Executive Officers as disclosed in this proxy statement in accordance with the compensation disclosure rules of the SEC.

Prior to casting your vote on this proposal, we encourage you to read the "Executive Compensation" section of this proxy statement (beginning on page 22) for a detailed discussion of our policies and practices relating to the compensation of our Named Executive Officers.

The Compensation Committee believes that the objectives of our executive compensation program, as they relate to our Named Executive Officers, are appropriate for a company of our size and stage of development and that our compensation policies and practices help meet those objectives. In addition, the Compensation Committee believes that our executive compensation program, as it relates to our Named Executive Officers, achieves an appropriate balance between fixed compensation and variable incentive compensation, pays for performance and promotes an alignment between the interests of our Named Executive Officers and our stockholders. Accordingly, we are asking our stockholders to approve the compensation of our Named Executive Officers.

This vote is advisory, which means that the vote on executive compensation is not binding on the Company, our Board or the Compensation Committee of the Board. The vote on this resolution is not intended to address any specific element of compensation, but rather relates to the overall compensation of our Named Executive Officers, as described in this proxy statement in accordance with the compensation disclosure rules of the SEC. To the extent there is a significant vote against our Named Executive Officer compensation as disclosed in this proxy statement, the Compensation Committee will evaluate whether any actions are necessary to address our stockholders' concerns.

Accordingly, we ask our stockholders to vote "FOR" the following resolution at the Annual Meeting:

"RESOLVED, that the Company's stockholders approve, on an advisory basis, the compensation of the Named Executive Officers, as disclosed in the Company's Proxy Statement for the 2019 Annual Meeting of Stockholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Executive Compensation Table and other related disclosure."

Recommendation of the Board:

The Board recommends a vote FOR the approval of the compensation of our Named Executive Officers, as disclosed in this proxy statement.

PROPOSAL 3 — RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has recommended, and the Board has approved, the appointment of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019. EisnerAmper LLP has served as our independent registered public accounting firm since 2015. We are soliciting stockholder ratification of the appointment of EisnerAmper LLP, although stockholder ratification is not required by law. If the appointment of EisnerAmper LLP is not ratified at the Annual Meeting, the Audit Committee will consider whether to appoint a different independent registered public accounting firm.

A representative of EisnerAmper LLP is expected to be present at the Annual Meeting. This representative will have an opportunity to make a statement and will be available to respond to appropriate questions.

Principal Accountant Fees and Services

Current Independent Registered Public Accounting Firm Fees

The following table sets forth the fees for professional services rendered by EisnerAmper LLP, the Company's independent registered public accounting firm, in connection with the audits of our annual financial statements for the fiscal years ended December 31, 2018 and 2017 and for other services rendered by EisnerAmper LLP during those periods. All fees described below were approved by the audit committee.

| | Fiscal 2018 | Fiscal 2017 |
|---------------------|-------------|-------------|
| Audit Fees(1): | \$ 339,600 | \$ 282,974 |
| Audit-Related Fees: | | _ |
| Tax Fees: | <u> </u> | _ |
| All Other Fees: | <u> </u> | |
| Total Fees: | \$ 339,600 | \$ 282,974 |

(1) Audit Fees include fees billed for the applicable year for services in connection with the audit of the Company's financial statements included in its annual report on Form 10-K, quarterly reports on Form 10-Q and registration statements on Forms S-1, S-3 and S-8.

Audit Committee Pre-Approval Policy

The Audit Committee has adopted a policy that requires the Audit Committee to approve all audit and permissible non-audit services to be provided by the independent registered public accounting firm prior to its engagement to provide such services. The Audit Committee has established a pre-approval policy for certain audit and non-audit services, up to a specified amount for each identified service that may be provided by the independent registered public accounting firm. In addition, the Chairman of the Audit Committee, or any member of the Audit Committee designated by the Chairman, may specifically approve any service that is not a prohibited non-audit service if the fees for such service are not reasonably expected to exceed \$10,000. Any such approval by the Chairman or his designee must be reported to the Audit Committee at its next scheduled meeting. The pre-approved services of the independent registered public accounting firm, and corresponding maximum fees, are reviewed annually by the Audit Committee.

Recommendation of the Board:

The Board recommends a vote FOR ratification of Eisner Amper LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2019.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and, in accordance therewith, file electronically with the SEC our annual, quarterly and current reports, proxy statements and other information. We make available on our website at www.catalystbiosciences.com, free of charge, copies of these reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that website is www.sec.gov. The information in or accessible through the websites referred to above are not incorporated into, and are not considered part of, this proxy statement. Further, our references to the URLs for these websites are intended to be inactive textual references only.

You should rely on the information contained in this proxy statement to vote your shares at the Annual Meeting. We have not authorized anyone to provide you with information that is different from what is contained in this proxy statement. This proxy statement is dated May 2, 2019. You should not assume that the information contained in this proxy statement is accurate as of any date other than that date, and the mailing of this proxy statement to stockholders at any time after that date does not create an implication to the contrary. This proxy statement does not constitute a solicitation of a proxy in any jurisdiction where, or to or from any person to whom, it is unlawful to make such proxy solicitations in such jurisdiction.

FORM 10-K

We will make available, on or about May 2, 2019, the proxy materials, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, at http://www.astproxyportal.com/ast/21328. We will also make available, solely for your reference and by courtesy, our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 on the "Investors" page of our website at www.catalystbiosciences.com.

We will also provide, free of charge, to each person to any stockholder of record or beneficial owner of our common stock as of the Record Date, upon the written or oral request of any such persons, a copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 as filed with the SEC. Requests for such copies should be addressed to our Chief Financial Officer, Fletcher Payne, at the address below:

Catalyst Biosciences, Inc. 611 Gateway Blvd., Suite 710 South San Francisco, CA 94080 Attention: Fletcher Payne Telephone: 650.871.0761

Email: investors@catbio.com

Please include your contact information with the request. The exhibits set forth on the exhibit index of the Form 10-K may be made available at a reasonable charge.

OTHER MATTERS

We have no knowledge of any other matters that may come before the Annual Meeting and do not intend to present any other matters. However, if any other matters shall properly come before the meeting or any adjournment, our representatives will have the discretion to vote as they see fit unless directed otherwise.

If you do not plan to attend the Annual Meeting, in order that your shares may be represented and in order to assure the required quorum, please sign, date and return your proxy promptly. In the event you are able to attend the Annual Meeting, at your request, we will cancel your previously submitted proxy.

By order of the board of directors,

Nassim Usman

President and Chief Executive Officer

May 2, 2019

ANNUAL MEETING OF STOCKHOLDERS OF

CATALYST BIOSCIENCES, INC.

June 13, 2019

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NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:

The Notice of Meeting, proxy statement and proxy card are available at http://www.astproxyportal.com/ast/21328

Please sign, date and mail your proxy card in the envelope provided as soon as possible.

 \downarrow Please detach along perforated line and mail in the envelope provided. \downarrow

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF DIRECTORS AND "FOR" PROPOSALS 2 AND 3.

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PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE 🗵 FOR AGAINST ABSTAIN 1. Election of Class I Directors: 2. To approve the compensation of the Company's Named П П П Executive Officers in a non-binding advisory vote; NOMINEES: To ratify the appointment of EisnerAmper LLP as the O Augustine Lawlor Company's independent registered public accounting FOR ALL NOMINEES firm for the fiscal year ending December 31, 2019. O Eddie Williams WITHHOLD AUTHORITY FOR ALL NOMINEES NOTE: Such other business as may properly come before the meeting or any adjournment FOR ALL EXCEPT INSTRUCTIONS: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here: a To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method. Signature of Stockholder Signature of Stockholder

Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

CATALYST BIOSCIENCES, INC.

Annual Meeting of Stockholders
June 13, 2019 8:00 AM Pacific Time
This proxy is solicited by the Board of Directors

The stockholder(s) hereby appoint(s) Nassim Usman and Fletcher Payne, or either of them, as proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of common stock of Catalyst Biosciences, Inc. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders to be held at 8:00 a.m., Pacific Time, on June 13, 2019 at 611 Gateway Boulevard, Suite 710, South San Francisco, CA 94080 and any adjournment or postponement thereof.

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

(Continued and to be signed on the reverse side.)

■ 1.1 14475 ■

ANNUAL MEETING OF STOCKHOLDERS OF

CATALYST BIOSCIENCES, INC.

June 13, 2019

PROXY VOTING INSTRUCTIONS

INTERNET - Access "www.voteproxy.com" and follow the on-screen instructions or scan the QR code with your smartphone. Have your proxy card available when you access the web page.

Vote online until 11:59 PM EST the day before the meeting.

MAIL - Sign, date and mail your proxy card in the envelope provided as soon as possible.

IN PERSON - You may vote your shares in person by attending the Annual Meeting.

GO GREEN - e-Consent makes it easy to go paperless. With e-Consent, you can quickly access your proxy material, statements and other eligible documents online, while reducing costs, clutter and paper waste. Enroll today via www.astfinancial.com to enjoy online access.



COMPANY NUMBER

ACCOUNT NUMBER

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| Election of Class I Directors: | | | 2. | | ensation of the Company's N non-binding advisory vote; | | FOR | AGAINST | ABSTAIN |
| FOR ALL NOMINEES | NOMINEES: O Augustine Lawlor O Eddie Williams | | 3. | Company's independe | nent of EisnerAmper LLP as ent registered public accour ending December 31, 2019. | | | | |
| WITHHOLD AUTHORITY FOR ALL NOMINEES | | | | | | | | | |
| FOR ALL EXCEPT (See instructions below) | | | | OTE: Such other business ereof. | as may properly come before | the meet | ing o | r any adj | ournment |
| INSTRUCTIONS: To withhold authority EXCEPT"and fill in the shown here: 0; | y to vote for any individual nomine e circle next to each nominee yo | | | | | | | | |
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| To change the address on your account, new address in the address space above name(s) on the account may not be sub- | e. Please note that changes to the | | | | | | | | |
| Signature of Stockholder | | Date: | | Signature of Stockholder | | Date: | | | |

Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.