

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

SCHEDULE 14A

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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

CATABASIS PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

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

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies:

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 - (1) Amount Previously Paid:

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 - (3) Filing Party:

 - (4) Date Filed:

CATABASIS PHARMACEUTICALS, INC.

100 High Street, 28th Floor
Boston, MA 02110

NOTICE OF 2020 ANNUAL MEETING OF STOCKHOLDERS

To be held on June 11, 2020

You are cordially invited to attend the 2020 Annual Meeting of Stockholders (the "Annual Meeting") of Catabasis Pharmaceuticals, Inc., which is scheduled to be held on Thursday, June 11, 2020 at 10:00 a.m. Eastern Time, at 100 High Street, Boston, Massachusetts 02110.*

At the Annual Meeting, the stockholders will consider and vote on the following matters:

1. Election of three Class II Directors to our Board of Directors, to serve until the 2023 annual meeting of stockholders;
2. To approve an amendment and restatement of our Amended and Restated 2015 Stock Incentive Plan to (i) increase the number of shares available for issuance thereunder by 2,000,000 and (ii) provide that shares of common stock repurchased by us on the open market using the proceeds from the exercise of an award under the plan will not increase the number of shares available for future grant of awards under the plan (the "Plan Amendment Proposal");
3. Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020; and
4. Transaction of any other business properly brought before the Annual Meeting or any adjournment or postponement thereof.

You can find more information, including the nominees for directors, in the attached Proxy Statement. The Board of Directors recommends that you vote in favor of each of proposals one, two and three as outlined in the attached Proxy Statement.

We are pleased to take advantage of the Securities and Exchange Commission rules that allow us to furnish proxy materials to our stockholders on the internet.

We invite all stockholders to attend the Annual Meeting in person.* Stockholders of record at the close of business on April 13, 2020, the record date for the Annual Meeting, are entitled to notice of, and to vote at, the Annual Meeting or any adjournment or postponement of the Annual Meeting. Whether or not you expect to attend the Annual Meeting in person, please vote your shares by proxy as promptly as possible to ensure your representation and the presence of a quorum at the Annual Meeting. In addition to returning your proxy card by mail, you may vote your shares on the internet by visiting www.proxyvote.com or by telephone by calling 800-690-6903 and following the recorded instructions. Your vote is important regardless of the number of shares you own. If you send in your proxy card or vote by telephone or the internet and then decide to attend the Annual Meeting to vote your shares in person, you may still do so. Your proxy is revocable in accordance with the procedures set forth in the Proxy Statement. If your shares are held in "street name," that is, held for your account by a broker or other nominee, you will receive instructions from the holder of record that you must follow for your shares to be voted.

By order of the Board of Directors,



Jill C. Milne, Ph.D.
President and Chief Executive Officer

Boston, Massachusetts
April 28, 2020

* We intend to hold the Annual Meeting in person; however, we are actively monitoring the COVID-19 pandemic and are sensitive to the public health and travel concerns our stockholders, employees, and directors may have and the restrictions or protocols that federal, state, and local governments may impose on in-person meetings. In the event it is not possible or advisable to hold the Annual Meeting in person, we will issue a press release (which we will also file with the Securities and Exchange Commission) announcing alternative arrangements for the meeting, which may include holding the Annual Meeting solely by means of remote communication, as promptly as practicable. Please also monitor our investor relations website at ir.catabasis.com for updated information. If you are planning to attend the Annual Meeting, please check the website in the days leading up to the meeting date for any announcements regarding alternative arrangements for the meeting.

Catabasis Pharmaceuticals, Inc.
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CATABASIS PHARMACEUTICALS, INC.

100 High Street, 28th Floor
Boston, MA 02110
617-349-1971

PROXY STATEMENT

**FOR THE 2020 ANNUAL MEETING OF STOCKHOLDERS
to be held on June 11, 2020**

This proxy statement and the proxy card contain information about the 2020 Annual Meeting of Stockholders of Catabasis Pharmaceuticals, Inc. (the "Annual Meeting") to be held on Thursday, June 11, 2020 at 10:00 a.m. Eastern Time, at 100 High Street, Boston, Massachusetts 02110.* The Board of Directors of Catabasis Pharmaceuticals, Inc. is using this proxy statement to solicit proxies for use at the Annual Meeting. In this proxy statement, unless expressly stated otherwise or the context otherwise requires, the use of "Catabasis," "Company," "our," "we" or "us" refers to Catabasis Pharmaceuticals, Inc.

All properly submitted proxies will be voted in accordance with the instructions contained in those proxies. If no instructions are specified, the proxies will be voted in accordance with the recommendation of our Board of Directors with respect to each of the matters set forth in the accompanying Notice of Meeting. You may revoke your proxy at any time before it is exercised at the meeting by giving our corporate secretary written notice to that effect.

Our Annual Report to Stockholders for the fiscal year ended December 31, 2019 and this proxy statement and proxy card are first being made available to stockholders on or about April 28, 2020.

**Important Notice Regarding the Availability of Proxy Materials for
the Annual Meeting of Stockholders to be Held on June 11, 2020:**

**This proxy statement and our 2019 Annual Report to Stockholders are
available for viewing, printing and downloading at www.proxyvote.com.**

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, as filed with the Securities and Exchange Commission, or SEC, except for exhibits, will be furnished without charge to any stockholder upon written request to Catabasis Pharmaceuticals, Inc., Attention: Corporate Secretary, 100 High Street, 28th Floor, Boston, MA 02110. This proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 are also available on the SEC's website at www.sec.gov and our website at www.catabasis.com.

* We intend to hold the Annual Meeting in person; however, we are actively monitoring the COVID-19 pandemic and are sensitive to the public health and travel concerns our stockholders, employees, and directors may have and the restrictions or protocols that federal, state, and local governments may impose on in-person meetings. In the event it is not possible or advisable to hold the Annual Meeting in person, we will issue a press release (which we will also file with the Securities and Exchange Commission) announcing alternative arrangements for the meeting, which may include holding the Annual Meeting solely by means of remote communication, as promptly as practicable. Please also monitor our investor relations website at ir.catabasis.com for updated information. If you are planning to attend the Annual Meeting, please check the website in the days leading up to the meeting date for any announcements regarding alternative arrangements for the meeting.

IMPORTANT INFORMATION ABOUT THE ANNUAL MEETING AND VOTING

Purpose of the Annual Meeting

At the Annual Meeting, our stockholders will consider and vote on the following matters:

1. Election of three Class II directors to our Board of Directors, to serve until the 2023 annual meeting of stockholders;
2. To approve an amendment and restatement of our Amended and Restated 2015 Stock Incentive Plan to (i) increase the number of shares available for issuance thereunder by 2,000,000 shares and (ii) provide that shares of common stock repurchased by us on the open market using the proceeds from the exercise of an award under the plan will not increase the number of shares available for future grant of awards under the plan (the "Plan Amendment Proposal");
3. Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020; and
4. Transaction of any other business properly brought before the Annual Meeting or any adjournment or postponement thereof.

As of the date of this proxy statement, we are not aware of any business to come before the meeting other than the first two items noted above.

Board of Directors Recommendation

Our Board of Directors unanimously recommends that you vote:

FOR the election of the nominees to serve as Class II Directors on our Board of Directors for a three-year term;

FOR the Plan Amendment Proposal; and

FOR the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020.

Notice of Internet Availability of Proxy Materials

Pursuant to rules adopted by the SEC, we have elected to provide access to our proxy materials via the internet. Accordingly, we are sending a notice of internet availability of proxy materials to our stockholders. All stockholders will have the ability to access the proxy materials on the website referenced in the notice and to request to receive a printed set of the proxy materials by mail. Instructions on how to access the proxy materials over the internet and how to request a printed copy may be found in the notice. In addition, stockholders may request to receive proxy materials in printed form by mail or electronically by email on an ongoing basis. We encourage stockholders to take advantage of the availability of the proxy materials on the internet or through email to help reduce the environmental impact of our annual meetings. The proxy materials, including this proxy statement, a proxy card or voting instruction card and our 2019 Annual Report on Form 10-K, are also available for viewing, printing and downloading on the internet at www.proxyvote.com.

Who Can Vote at the Annual Meeting

Only stockholders of record at the close of business on the record date of April 13, 2020 are entitled to receive notice of the Annual Meeting and to vote the shares of our common stock that they held on that date. As of April 13, 2020, there were 17,897,172 shares of common stock issued and

outstanding. Each share of common stock is entitled to one vote on each matter properly brought before the Annual Meeting.

Difference between a "stockholder of record" and a beneficial owner of shares held in "street name"

Stockholder of Record. If you have shares registered directly in your name with our transfer agent, American Stock Transfer & Trust Company, LLC, then you are considered a "stockholder of record" of those shares. For these shares, your set of proxy materials has been made available to you directly by us. You may vote these shares by proxy prior to the Annual Meeting by following the instructions contained on the proxy card.

Beneficial Owner of Shares Held in Street Name. If you hold shares in a brokerage account or by a bank, trust or other nominee or custodian, then you are considered the beneficial owner of those shares, which are held in "street name." For these shares, your set of proxy materials has been made available to you by that organization. The organization holding your account is considered the stockholder of record for purposes of voting at the Annual Meeting. As the beneficial owner, you have the right to instruct that organization as to how to vote the shares held in your account by following the instructions contained on the voting instruction card provided to you by that organization.

How to Vote

Stockholder of Record. If you are a stockholder of record, you can vote your shares in one of two ways: either by proxy or in person at the Annual Meeting. If you choose to vote by proxy, you may do so by telephone, via the internet or by mail. Each of these methods is explained below.

- ***By Telephone.*** If you request printed copies of the proxy materials by mail and you live in the United States or Canada, you may vote by proxy by calling the toll-free number found on the proxy card. You must have the control number that is on the proxy card when voting. If you choose to vote by telephone, you do not have to return the proxy card.
- ***By Internet.*** You may transmit your proxy voting instructions via the internet by following the instructions provided on the notice of internet availability of proxy materials or the proxy card. You will need to have the control number that is on the proxy card when voting. If you choose to vote via the internet, you do not have to return the proxy card.
- ***By Mail.*** If you request printed copies of the proxy materials by mail, you may vote by proxy by completing, signing and dating the proxy card and returning it in the envelope provided.
- ***In Person at the Annual Meeting.*** You may vote in person at the Annual Meeting. We will give you a ballot when you arrive. Even if you plan to attend the Annual Meeting, we urge you to vote your shares by proxy in advance of the Annual Meeting so that, if you should become unable to attend the Annual Meeting, your shares will be voted as directed by you.

Telephone and internet voting for stockholders of record will be available up until 11:59 p.m. Eastern Time on June 10, 2020 and mailed proxy cards must be received by June 10, 2020 in order to be counted at the Annual Meeting. If the Annual Meeting is adjourned or postponed, these deadlines may be extended.

Beneficial Owner of Shares Held in Street Name. If your shares are held in street name (held for your account by a broker or other nominee):

- ***By Telephone or Internet.*** You will receive instructions, or a voting instruction form from your broker or other nominee if you are permitted to vote by telephone or internet.
- ***By Mail.*** You will receive instructions from your broker or other nominee explaining how to vote your shares by mail.

- *In Person at the Annual Meeting.* If you attend the Annual Meeting, you may vote in person. To do so, you will need to show a picture identification as well as an account statement or a letter from the record holder indicating that you owned the shares as of the record date and obtain from the broker or other nominee who holds your shares a legal proxy or broker's proxy card and bring it with you to the meeting.

The voting deadlines and availability of telephone and internet voting for beneficial owners of shares held in "street name" will depend on the voting processes of the organization that holds your shares. Therefore, we urge you to carefully review and follow the voting instruction card and any other materials that you receive from that organization.

If you hold your shares of Catabasis common stock in multiple accounts, you should vote your shares as described in each set of proxy materials you receive.

Quorum

A quorum of stockholders is necessary to hold a valid meeting. Our bylaws provide that a quorum will exist if stockholders holding a majority of the shares of stock issued and outstanding and entitled to vote are present at the meeting in person or by proxy. Abstentions and broker non-votes count as present for establishing a quorum but will not be counted as votes cast. Broker non-votes occur when your broker or other nominee submits a proxy for your shares (because the broker or other nominee has received instructions from you on one or more proposals, but not all, or has not received instructions from you but is entitled to vote on a particular "discretionary" matter) but does not indicate a vote for a particular proposal because the broker or other nominee either does not have the authority to vote on that proposal and has not received voting instructions from you or has discretionary authority but chooses not to exercise it. If a quorum is not present, the meeting may be adjourned until a quorum is obtained.

Ballot Measures Considered "Routine" and "Non-Routine"

The election of directors (Proposal No. 1) is a matter considered non-routine under applicable rules. A broker or other nominee cannot vote without instructions on non-routine matters, and therefore there may be broker non-votes on Proposal No. 1.

The Plan Amendment Proposal (Proposal No. 2) is a matter considered non-routine under applicable rules. A broker or other nominee cannot vote without instructions on non-routine matters, and therefore there may be broker non-votes on Proposal No. 2.

The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for 2020 (Proposal No. 3) is a matter considered routine under applicable rules. A broker or other nominee may generally exercise discretionary authority and vote on routine matters. If they exercise this discretionary authority, no broker non-votes are expected to exist in connection with Proposal No. 3.

Votes Required to Elect Directors, Approve Plan Amendment Proposal and Ratify Appointment of Ernst & Young LLP

To be elected, a director must receive a plurality of the votes cast by stockholders entitled to vote at the meeting (Proposal No. 1). Shares represented by proxies that withhold authority to vote for a nominee for election as a director will not be counted as votes "for" a director.

The approval of the Plan Amendment Proposal requires the affirmative vote of the majority of the shares of common stock present or represented by proxy and voted "for" or "against" such matter (Proposal No. 2).

The ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm requires the affirmative vote of the majority of the shares of common stock present or represented by proxy and voted "for" or "against" such matter (Proposal No. 3).

Abstentions and broker non-votes will not be counted as votes cast on any of the proposals.

Method of Counting Votes

Each holder of common stock is entitled to one vote at the Annual Meeting on each matter to come before the Annual Meeting, including the election of directors, for each share held by such stockholder as of the record date. Votes cast in person at the Annual Meeting or by proxy by mail, via the internet or by telephone will be tabulated by the inspector of election appointed for the Annual Meeting, who will also determine whether a quorum is present.

Revoking a Proxy; Changing Your Vote

If you are a stockholder of record, you may revoke your proxy before the vote is taken at the meeting:

- by submitting a new proxy with a later date before the applicable deadline either signed and returned by mail or transmitted using the telephone or internet voting procedures described in the "How to Vote" section above;
- by voting in person at the meeting; or
- by filing a written revocation with our corporate secretary.

If your shares are held in "street name," you may submit new voting instructions by contacting your broker or other organization holding your account. You may also vote in person at the Annual Meeting, which will have the effect of revoking any previously submitted voting instructions, if you obtain a legal proxy from the organization that holds your shares as described in the "How to Vote" section above.

Your attendance at the Annual Meeting will not automatically revoke your proxy.

Costs of Proxy Solicitation

We will bear the costs of soliciting proxies. In addition to solicitations by mail, our directors, officers and regular employees, without additional remuneration, may solicit proxies by telephone, facsimile, email, personal interviews and other means. In addition, we have hired Morrow Sodali LLC, 470 West Ave., 3rd Floor, Stamford, CT 06902 to aid us in the solicitation of proxies for a fee of \$5,500 plus out-of-pocket expenses.

Voting Results

We plan to announce preliminary voting results at the Annual Meeting and to publish final results in a Current Report on Form 8-K to be filed with the SEC within four business days following the Annual Meeting.

PROPOSAL NO. 1—ELECTION OF CLASS II DIRECTORS

Our Board of Directors is divided into three classes, with one class of our directors standing for election each year, for a three-year term. The authorized size of our Board of Directors is currently seven. Directors for each class are elected at the annual meeting of stockholders held in the year in which the term for their class expires and hold office until their resignation or removal or their successors are duly elected and qualified. In accordance with our certificate of incorporation and bylaws, our directors may fill existing vacancies on the Board of Directors by appointment. The members of the classes are divided as follows:

- the Class I directors are Michael D. Kishbauch and Jill C. Milne, and their term will expire at the annual meeting of stockholders to be held in 2022; and
- the Class II directors are Kenneth Bate, Joanne T. Beck and Hugh Cole, and their term expires at the Annual Meeting;
- the Class III directors are Burt Adelman and Gregg Lapointe, and their term will expire at the annual meeting of stockholders to be held in 2021.

Our certificate of incorporation and bylaws provide that the authorized number of directors may be changed only by resolution of our Board of Directors. Our certificate of incorporation and bylaws also provide that our directors may be removed only for cause by the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our Board of Directors, including a vacancy resulting from an enlargement of our Board of Directors, may be filled only by vote of a majority of our directors then in office.

Our bylaws require that each of the classes of our Board of Directors consist, as nearly as may be possible, of one-third of the total number of directors constituting our entire Board of Directors. Our Board of Directors, on the recommendation of our nominating and corporate governance committee, has nominated Kenneth Bate, Joanne Beck, Ph.D., and Hugh Cole for re-election as Class II directors at the Annual Meeting. Each Class II director that is elected at the Annual Meeting will be elected to serve for a three-year term that will expire at our annual meeting of stockholders to be held in 2023.

If no contrary indication is made, proxies in the accompanying form are to be voted for Mr. Bate, Dr. Beck and Mr. Cole or, in the event that any of these candidates is not a candidate or is unable to serve as a director at the time of election (which is not currently expected), for any substitute nominee who is designated by our Board of Directors.

We have no formal policy regarding diversity of our Board of Directors. Our priority in selection of Board members is identification of members who will further the interests of our stockholders through their established record of professional accomplishment, the ability to contribute positively to the collaborative culture among Board members, knowledge of our business and understanding of the competitive landscape and adherence to high ethical standards. Certain individual skills and qualifications of our directors, which we believe contribute to the effectiveness of the Board of Directors as a whole, are described in the section below under "Information Regarding Directors."

Information Regarding Directors

The information set forth below as to the directors and nominees for director has been furnished to us by the directors and nominees for director:

**Nominees for Election to the Board of Directors
For a Three-Year Term Expiring at the
2023 Annual Meeting of Stockholders (Class II)**

<u>Name</u>	<u>Age</u>	<u>Present Position with Catabasis Pharmaceuticals, Inc.</u>
Kenneth Bate	69	Director, Chairman of the Board of Directors
Joanne T. Beck, Ph.D.	59	Director
Hugh Cole	55	Director

Kenneth Bate has served as a member of our Board of Directors since January 2014, as Co-Chairman from February 2016 to February 2019, and as Chairman since February 2019. Mr. Bate has served as an independent consultant in the biotechnology field since 2012. From April 2009 until December 2011, Mr. Bate was the President and Chief Executive Officer of Archemix, a privately held biotechnology company. From March 2006 to April 2009, Mr. Bate served in various positions at NitroMed, a public pharmaceutical company, most recently as President and Chief Executive Officer. From 2002 to 2005, Mr. Bate was head of commercial operations and Chief Financial Officer at Millennium Pharmaceuticals. Prior to joining Millennium, Mr. Bate co-founded JSB-Partners, LLC, a banking and advisory services firm for biopharmaceutical and life sciences companies. From 1990 to 1996, Mr. Bate was employed with Biogen, Inc., a public biotechnology company, first as its Chief Financial Officer and then as head of the commercial organization. Mr. Bate is a director of four other public biopharmaceutical companies, AVEO Pharmaceuticals, Genocea Biosciences, Epizyme Pharmaceuticals and Madrigal Pharmaceuticals. During the last five years, Mr. Bate served as a member of the board of directors of public biopharmaceutical companies Cubist Pharmaceuticals, Biomarin Pharmaceutical and Vanda Pharmaceuticals. He holds an M.B.A. from The Wharton School of the University of Pennsylvania and a B.A. in chemistry from Williams College. We believe that Mr. Bate's qualifications to serve on our Board of Directors include his operating, finance, commercial, transactional and senior management experience in the industry, as well as his experience serving on the boards of directors of other public companies in the life sciences industry.

Joanne T. Beck, Ph.D., has served as a member of our Board of Directors since February 2019. Dr. Beck is currently the Chief Operations Officer at Boston Pharmaceuticals, a privately held biopharmaceutical company, a position in which she has served since December 2019. From April 2016 to December 2019, Dr. Beck served as the Executive Vice President of Global Pharmaceutical Development and Operations at Celgene Corporation, a publicly held biopharmaceutical company. From 2012 to March 2016, Dr. Beck was Senior Vice President of Pharmaceutical Development at Shire Plc, a former publicly held biopharmaceutical company. Prior to Shire, she held positions of increasing responsibility in Global Pharmaceutical Operations at Abbott Laboratories, a publicly held pharmaceuticals and healthcare products company, and was the site head of Abbott Vascular Instruments GmbH. Prior to Abbott, Dr. Beck held positions in Process Development at Genentech and Amgen. Dr. Beck currently serves as a member of the board of directors of public biopharmaceutical company Orchard Therapeutics. Dr. Beck holds a Ph.D. in biochemistry and molecular biology from Oregon Health and Science University and completed a postdoctoral fellowship in the department of Pharmaceutical Chemistry at the University of California, San Francisco, and holds a B.A. in chemistry from Lewis and Clark College. We believe that Dr. Beck is qualified to serve on our Board of Directors because of her significant experience in the areas of process development, manufacturing and supply chain of biopharmaceuticals and her experience as an executive officer and board member in the pharmaceutical industry.

Hugh M. Cole has served as a member of our Board of Directors since July 2019. Mr. Cole is currently the Chief Business Officer and Head of Corporate Development at Jounce Therapeutics, a publicly held biotechnology company, a position in which he has served since August 2017. From 2014 to July 2017, Mr. Cole was the Chief Business Officer at ARIAD Pharmaceuticals, a publicly held pharmaceutical company. Prior to ARIAD Pharmaceuticals, he held positions of increasing responsibility at Shire Pharmaceuticals, most recently Senior Vice President, Strategic Planning and Program Management from 2012 to 2014, Global Franchise Leader from 2009 to 2012, and head of Business Development for Shire's rare disease business from 2007 to 2009. Prior to Shire, Mr. Cole held various positions in Business Development at Oscient Pharmaceuticals and Millennium Pharmaceuticals. Mr. Cole holds an A.B. in Chemistry from Harvard University and an M.B.A. in Health Care Management and Finance from The Wharton School of the University of Pennsylvania. We believe that Mr. Cole is qualified to serve on our Board of Directors because of his significant experience in the areas of business development and strategic planning and his experience as an executive officer in the pharmaceutical industry.

Recommendation of the Board of Directors

OUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE ELECTION OF KENNETH BATE, JOANNE BECK, PH.D., AND HUGH M. COLE.

**Members of the Board of Directors Continuing in Office
Term Expiring at the
2021 Annual Meeting of Stockholders (Class III)**

<u>Name</u>	<u>Age</u>	<u>Present Position with Catabasis Pharmaceuticals, Inc.</u>
Burt Adelman, M.D.	67	Director
Gregg Lapointe	61	Director

Burt Adelman, M.D., has served as a member of our Board of Directors since April 2016. Dr. Adelman has served as a Senior Advisor at Novo Ventures US Inc., a venture capital firm, since September 2017. Previously, Dr. Adelman was Executive Vice President, Research and Development and Chief Medical Officer of Dyax, a biotechnology company, from February 2012 until its acquisition by Shire in January 2016. Prior to joining Dyax, he worked at Eleven Biotherapeutics, a biotechnology company, where he served as interim President of Research and Development from 2010 to 2011 and as Senior Advisor from February 2011 until December 2011. From 1991 to 2007, Dr. Adelman held positions of increasing responsibility at Biogen, a global biotechnology company, ultimately as Executive Vice President, Portfolio Strategy. From 1998 through 2020, Dr. Adelman served as a lecturer in medicine at Harvard Medical School and as an Associate Physician at Brigham and Women's Hospital. Dr. Adelman holds an M.D. from Cornell Medical College and a B.S. in biology from Trinity College. He completed residency training and a hematology fellowship at the Peter Bent Brigham Hospital. We believe that Dr. Adelman is qualified to serve on our Board of Directors because of his broad experience in drug development.

Gregg Lapointe has served as a member of our Board of Directors since January 2019. Since 2012, Mr. Lapointe has served as Co-Founder and Chief Executive Officer of Cerium Pharmaceuticals, a privately held biopharmaceutical company. He previously held varying roles at Sigma-Tau Pharmaceuticals, Inc., a privately held biopharmaceutical company, from 2001 through 2012, including Chief Operating Officer from 2003 to 2008 and Chief Executive Officer from 2008 to 2012. From 1996 to 2001, Mr. Lapointe served as Vice President of Operations and Vice President, Controller of AstenJohnson, Inc. (formerly JWI Inc.). Mr. Lapointe began his career at Price Waterhouse and is a Certified Public Accountant. He currently serves on the Board of Directors of two public biopharmaceutical companies: Soligenix, Inc. and Rigel Pharmaceuticals, Inc. During the last five years,

Mr. Lapointe served as a member of the Board of Directors of public biotechnology companies Plus Therapeutics, Inc. (formerly known as Cytori Therapeutics, Inc.), SciClone Pharmaceuticals, Inc., Raptor Pharmaceuticals, Inc., Questcor Pharmaceuticals, Inc. and ImmunoCellular Therapeutics, Inc. He holds an M.B.A. from Duke University, is a Certified Public Accountant, and holds a Bachelor of Commerce from Concordia University. We believe that Mr. Lapointe is qualified to serve on our Board of Directors because of his significant experience in the areas of finance, management and specialty drug commercialization and his experience as an executive officer and board member in the pharmaceutical industry.

**Members of the Board of Directors Continuing in Office
Term Expiring at the
2022 Annual Meeting of Stockholders (Class I)**

<u>Name</u>	<u>Age</u>	<u>Present Position with Catabasis Pharmaceuticals, Inc.</u>
Michael D. Kishbauch	71	Director
Jill C. Milne, Ph.D.	52	President, Chief Executive Officer and Director

Michael D. Kishbauch has served as a member of our Board of Directors since April 2016. Mr. Kishbauch previously served as President and Chief Executive Officer of Achillion Pharmaceuticals, a publicly held biopharmaceutical company, from July 2004 until his retirement in September 2013. Prior to that, he founded and, from 1996 to 2004, served as President and Chief Executive Officer of OraPharma, a commercial-stage pharmaceutical company focused on oral health care that was acquired by Johnson & Johnson in 2003. Mr. Kishbauch also held senior management positions with MedImmune, Inc., a biotechnology company, from 1992 to 1995. Mr. Kishbauch formerly served as a director of Achillion Pharmaceuticals, Inc., a biotechnology company, from July 2004 through January 2020, Progenics Pharmaceuticals, Inc., a biopharmaceutical company, from 2013 through 2019 and TetraLogic Pharmaceuticals Corporation from 2014 through 2016. Mr. Kishbauch holds an M.B.A. from The Wharton School of the University of Pennsylvania and a B.A. in biology from Wesleyan University. We believe that Mr. Kishbauch is qualified to serve on our Board of Directors because of his extensive experience as an entrepreneur and manager and as a public company senior executive in the biopharmaceutical industry.

Jill C. Milne, Ph.D., is a co-founder of our company and has served as a member of our Board of Directors and as our President and Chief Executive Officer since June 2008. Prior to co-founding our company, Dr. Milne worked as head of discovery biology at Sirtris Pharmaceuticals, a biotechnology company, from 2004 to 2008, when it was acquired by GlaxoSmithKline. From 1998 to 2004, Dr. Milne worked at Pfizer Global Research and Development, where she served as the worldwide head of the Drug Pfinder Program and head of the Enzyme Target Group at the Pfizer Discovery Technology Center in Cambridge, Massachusetts. Prior to joining Pfizer, she was an American Cancer Society postdoctoral fellow in the department of biological chemistry and molecular pharmacology at Harvard Medical School from 1995 to 1998. Dr. Milne holds a Ph.D. from Harvard University and a B.A. in biological chemistry from Wellesley College. We believe that Dr. Milne is qualified to serve on our Board of Directors because of her extensive leadership experience in the life sciences industry and her extensive knowledge of our company based on her role as co-founder and Chief Executive Officer.

CORPORATE GOVERNANCE

General

We believe that good corporate governance is important to ensure that Catabasis is managed for the long-term benefit of our stockholders. This section describes key corporate governance practices that we have adopted. We have adopted a code of business conduct and ethics, which applies to all of our officers, directors and employees, and corporate governance guidelines and charters for our audit committee, our compensation committee, our nominating and governance committee and our science and technology committee. We have posted copies of our code of business conduct and ethics and corporate governance guidelines, as well as each of our committee charters, on the "Corporate Governance" page of the "Investors" section of our website, www.catabasis.com, which you can access free of charge. Information contained on the website is not incorporated by reference in, or considered part of, this proxy statement. We will also provide copies of these documents, as well as our other corporate governance documents, free of charge, to any stockholder upon written request to Catabasis Pharmaceuticals, Inc., 100 High Street, 28th Floor, Boston, MA 02110, Attention: Investor Relations. We intend to disclose on our website any amendments to, or waivers from, our code of business conduct and ethics that are required to be disclosed by law or Nasdaq listing standards.

Director Independence

Rule 5605 of the Nasdaq Listing Rules requires a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, the Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent, that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and that compensation committee members also satisfy heightened independence requirements contained in the Nasdaq Listing Rules as well as Rule 10C-1 under the Exchange Act.

Under Rule 5605(a)(2), a director will only qualify as an "independent director" if, in the opinion of our Board of Directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee, accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries.

When determining the independence of the members of our compensation committee under the heightened independence requirements contained in the Nasdaq Listing Rules and Rule 10C-1, our Board of Directors is required to consider all factors specifically relevant to determining whether a director has a relationship with us that 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: (1) the source of compensation of that director, including any consulting, advisory or other compensatory fee paid by us to that director; and (2) whether that director is affiliated with our company, a subsidiary of our company or an affiliate of a subsidiary of our company.

Our Board of Directors has reviewed the composition of our Board of Directors and its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our Board of Directors has determined that each of our directors, other than Dr. Milne, is an "independent director" as defined under Rule 5605(a)(2) of the Nasdaq Listing Rules.

Our Board of Directors also has determined that Mr. Lapointe, Mr. Bate and Mr. Cole, who comprise our audit committee, and Mr. Kishbauch and Dr. Beck, who comprise our compensation committee, satisfy the independence standards for such committees established by the SEC and the Nasdaq Listing Rules, as applicable. Our Board of Directors also has determined that Mr. Bate, who served on our compensation committee during 2018 and 2019, satisfied the independence standards for such committee established by the SEC and the Nasdaq Listing Rules, as applicable. In making such determinations, our Board of Directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances our Board of Directors deemed relevant in determining independence, including the beneficial ownership of our capital stock by each non-employee director.

Board Leadership Structure

Our Board of Directors has chosen to separate the role of our Chief Executive Officer and the role of Chairman of the Board of Directors. Our Board of Directors is currently chaired by Mr. Bate, who possesses an in-depth knowledge of the issues, opportunities and challenges we face. We believe he is the person best positioned to ensure our Board of Directors' time and attention is focused on the most critical matters. We currently separate the roles of Chairman of the Board of Directors and Chief Executive Officer because we believe that this structure enhances the Board's oversight of, and independence from, management, and enables the Board to carry out its responsibilities on behalf of our stockholders. This leadership structure also allows Dr. Milne, our Chief Executive Officer, to focus her time and energy on operating and managing the Company, while leveraging the experience and perspective of Mr. Bate.

The Board's Role in Risk Oversight

Our Board of Directors has responsibility for the oversight of the company's risk management processes and, either as a whole or through its committees, regularly discusses with management our major risk exposures, the potential impact of these risks on our business and the steps we take to manage them. The risk oversight process includes receiving regular reports from Board committees and members of senior management to enable our Board to understand the company's risk identification, risk management and risk mitigation strategies with respect to areas of potential material risk, including operations, finance, legal, regulatory, strategic and reputational risk.

The audit committee reviews information regarding liquidity and operations and oversees our management of financial risks. Periodically, the audit committee reviews our policies with respect to risk assessment, risk management, loss prevention and regulatory compliance. Oversight by the audit committee includes direct communication with our external auditors, and discussions with management regarding significant risk exposures and the actions management has taken to limit, monitor or control such exposures. The compensation committee is responsible for assessing whether any of our compensation policies or programs has the potential to encourage excessive risk-taking. The nominating and corporate governance committee manages risks associated with the independence of the Board of Directors, corporate disclosure practices, and potential conflicts of interest. The science and technology committee has responsibility for risk management in areas affecting our research and development. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, the entire Board of Directors is regularly informed through committee reports about such risks. Matters of significant strategic risk are considered by our Board of Directors as a whole.

Board of Directors Meetings

Our Board of Directors met eleven times during 2019. During the year, each of our directors attended 75% or more of the total number of meetings of the Board of Directors and the committees on which he or she served.

Committees of the Board of Directors

We have four standing committees: the audit committee, the compensation committee, the nominating and corporate governance committee and the science and technology committee. Each of these committees has a written charter approved by our Board of Directors. A copy of each charter can be found on the "Corporate Governance" page of the "Investors" section of our website at www.catabasis.com.

Audit Committee

The members of our audit committee are Mr. Bate, Mr. Cole and Mr. Lapointe. Mr. Lapointe is the chair of the audit committee. Our Board of Directors has determined that each of Mr. Bate, Mr. Cole and Mr. Lapointe qualifies as an "audit committee financial expert" within the meaning of SEC regulations and the Nasdaq Listing Rules. In making this determination, our Board of Directors has considered the formal education and nature and scope of each such director's previous experience, coupled with past and present service on various audit committees. Our audit committee assists our Board of Directors in its oversight of our accounting and financial reporting process and the audits of our financial statements. The audit committee met six times during 2019. The audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing our internal audit function, if any;
- discussing our risk management policies;
- establishing policies and procedures for the receipt, retention and treatment of accounting-related complaints and concerns;
- meeting independently with our registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by SEC rules.

We believe that the composition of our audit committee meets the requirements for independence under current Nasdaq listing standards and SEC rules and regulations. Our Board of Directors has determined that Mr. Bate, Mr. Cole and Mr. Lapointe are independent as independence is currently defined in applicable Nasdaq listing standards and SEC rules and regulations.

Compensation Committee

The current members of our compensation committee are Dr. Beck and Mr. Kishbauch. Mr. Kishbauch is the chair of the compensation committee. Our compensation committee assists our Board of Directors in the discharge of its responsibilities relating to the compensation of our executive officers. The compensation committee met four times and approved two unanimous written consents during 2019. The compensation committee's responsibilities include:

- reviewing and approving, or making recommendations to our Board of Directors with respect to, the compensation of our chief executive officer and our other executive officers;
- overseeing the evaluation of senior executives;
- overseeing and administering our cash and equity incentive plans;

- reviewing and making recommendations to our Board of Directors with respect to director compensation; and
- preparing the compensation committee report required by SEC rules, if applicable.

We believe that the composition of our compensation committee meets the requirements for independence under current Nasdaq listing standards and SEC rules and regulations. Our Board of Directors has determined that Dr. Beck and Mr. Kishbauch are independent as independence is currently defined in applicable Nasdaq listing standards and SEC rules and regulations.

The compensation committee engaged Radford, an AON Hewitt company, as its compensation consultant during the fiscal year ended December 31, 2019. Our compensation committee considered the relationship that Radford has with us, the members of our Board of Directors and our executive officers. Based on the committee's evaluation, the compensation committee has determined that no conflicts of interest exist between our company and Radford.

Radford assisted the committee in conducting a competitive compensation assessment for our executive officers for the fiscal year ended December 31, 2019. In evaluating the total compensation of our executive officers, the compensation committee, with the assistance of Radford, established a peer group of 18 publicly traded companies in the biopharmaceutical industry that was selected based on companies whose market capitalization, number of employees, maturity of product development pipeline and area of therapeutic focus are similar to ours. Seven of the peer companies included in our peer group for assessing 2018 compensation were excluded from the current peer group analysis in order to better align the peer group with the criteria noted above and due to acquisitions of certain previous peer group companies.

The peer group for our executive benchmarking as approved by the compensation committee for 2019 was comprised of the following companies:

Actinium Pharmaceuticals	Catalyst Biosciences	Marinus Pharmaceuticals
Akari Therapeutics	Chiasma	Matinas BioPharma
Allena Pharmaceuticals	Cidara Therapeutics	Ovid Therapeutics
Anavex Pharmaceuticals	Eiger BioPharmaceuticals	Proteostasis Therapeutics
Aridis Pharmaceuticals	Entasis Therapeutics	Pulmatix
aTyr Pharma	Eyenovia	Trevena

Radford then supplemented the peer group information with published survey data, which provided a broader market representation of companies and deeper position reporting.

The compensation committee approves the compensation objectives for our company and provides a recommendation to our Board of Directors on the compensation of the Chief Executive Officer and our other executive officers. The compensation committee reviews all compensation components including base salary, bonus, benefits, equity incentives and other perquisites, as well as severance arrangements, change-in-control benefits and other forms of executive officer compensation. See "Executive Compensation —Narrative to Summary Compensation Table" below for more information regarding the roles of the compensation committee, the Board of Directors, and compensation consultants in determining or recommending the amount or form of executive compensation.

Nominating and Corporate Governance Committee

The members of our nominating and corporate governance committee are Mr. Bate and Mr. Kishbauch. Mr. Bate is the chair of the nominating and corporate governance committee. The nominating and corporate governance committee met four times during 2019. The nominating and corporate governance committee's responsibilities include:

- identifying individuals qualified to become members of our Board of Directors;

- recommending to our Board of Directors the persons to be nominated for election as directors and to each committee of our Board of Directors;
- reviewing and making recommendations to the Board of Directors relating to management succession planning;
- developing and recommending corporate governance principles to the Board of Directors; and
- overseeing periodic evaluations of the Board of Directors.

We believe that the composition of our nominating and corporate governance committee meets the requirements for independence under current Nasdaq listing standards and SEC rules and regulations. Our Board of Directors has determined that Mr. Bate and Mr. Kishbauch are independent as independence is currently defined in applicable Nasdaq listing standards.

Science and Technology Committee

The members of the science and technology committee are Dr. Adelman and Dr. Beck. Dr. Adelman is the chair of the science and technology committee. The science and technology committee met two times during 2019. The science and technology committee's responsibilities include:

- reviewing, evaluating, and advising the Board of Directors and management regarding the long-term strategic goals and objectives and the direction of our research and development programs;
- monitoring and evaluating trends in research and development, and recommending to the Board of Directors and management emerging technologies for building our technological strength;
- recommending approaches to acquiring and maintaining technology positions;
- regularly reviewing our research and development pipeline; and
- assisting the Board of Directors with its oversight responsibility for enterprise risk management in areas affecting our research and development.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. We have posted on our website, www.catabasis.com, a current copy of the code and all disclosures that are required by law or Nasdaq stock market listing standards concerning any amendments to, or waivers from, any provision of the code. Information contained on the website is not incorporated by reference in, or considered part of, this proxy statement.

Anti-Hedging Policy

We have adopted an insider trading policy that, among other things, expressly prohibits all of our employees, including our named executive officers, as well as our directors, and certain of their family members and related entities, from engaging in short sales of our securities, including short sales "against the box"; purchases or sales of puts, calls or other derivative securities based on our securities; and purchases of financial instruments (including prepaid variable forward contracts, equity swaps, collars and exchange funds) that are designed to hedge or offset any decrease in the market value of our securities.

Director Nomination Process

Our nominating and corporate governance committee is responsible for identifying individuals qualified to serve as directors, consistent with criteria approved by our Board of Directors, and recommending the persons to be nominated for election as directors.

Director Qualifications

In evaluating director nominees, the nominating and corporate governance committee will consider, among other things, the following factors:

- reputation for integrity, honesty and adherence to high ethical standards;
- demonstrated business acumen, experience and ability to exercise sound judgments in matters that relate to the current and long-term objectives of our company;
- commitment to understand our company and its industry;
- interest and ability to understand the sometimes conflicting interests of the various constituencies of our company, which include stockholders, employees, customers, governmental units, creditors and the general public, and to act in the interests of all stockholders; and
- diversity of expertise and experience in substantive matters pertaining to our business relative to other members of our Board of Directors.

The nominating and corporate governance committee's goal is to assemble a Board of Directors that brings to the Company a variety of perspectives and skills derived from high quality business and professional experience. Moreover, the nominating and corporate governance committee believes that the background and qualifications of the Board of Directors, considered as a group, should provide a significant mix of experience, knowledge and abilities that will allow the Board of Directors to fulfill its responsibilities. Nominees are not discriminated against on the basis of race, religion, national origin, sex, sexual orientation, disability or any other basis proscribed by law.

The nominating and corporate governance committee has not adopted a formal policy with respect to a fixed set of specific minimum qualifications for its candidates for membership on the Board of Directors. The committee may consider such other facts, including, without limitation, diversity, as it may deem are in the best interests of our company and its stockholders. The committee further believes it is appropriate for at least one member of our Board of Directors to meet the criteria for an "audit committee financial expert" as that phrase is defined under the regulations promulgated by the SEC, and that a majority of the members of our Board of Directors be independent as required under the Nasdaq qualification standards. The committee believes it is appropriate for our chief executive officer to serve as a member of our Board of Directors. Our directors' performance and qualification criteria are reviewed periodically by the nominating and corporate governance committee.

Identification and Evaluation of Nominees for Directors

The nominating and corporate governance committee identifies nominees for director by first evaluating the current members of our Board of Directors willing to continue in service. Current members with qualifications and skills that are consistent with the nominating and corporate governance committee's criteria for board of director service and who are willing to continue in service are considered for re-nomination, balancing the value of continuity of service by existing members of our Board of Directors with that of obtaining a new perspective or expertise.

If any member of our Board of Directors does not wish to continue in service or if our Board of Directors decides not to re-nominate a member for re-election, the nominating and corporate governance committee identifies a new nominee that meets the criteria above. The committee generally inquires of our Board of Directors and members of management for their recommendations. The committee may also review the composition and qualification of the boards of directors of our competitors and may seek input from industry experts or analysts. The nominating and corporate governance committee reviews the qualifications, experience and background of suggested candidates. Final candidates, if other than our current directors, would be interviewed by the members of the nominating and corporate governance committee and by certain of our other independent directors and executive management. In making its determinations, the nominating and corporate governance committee evaluates each individual in the context of our Board of Directors as a whole, with the

objective of assembling a group that can best contribute to the success of our company and represent stockholder interests through the exercise of sound judgment. After review and deliberation of all feedback and data, the nominating and corporate governance committee makes its recommendation to our Board of Directors. The nominating and corporate governance committee utilized a third-party search firm to identify Board of Director candidates, including Dr. Beck and Mr. Lapointe, both of whom joined our Board of Directors in the first quarter of 2019, and Mr. Cole, who joined our Board of Directors in the third quarter of 2019. The nominating and corporate governance committee may in the future continue to use a third-party search firm in those situations where particular qualifications are required or where existing contacts are not sufficient to identify an appropriate candidate.

We have not received director candidate recommendations from our stockholders. However, any recommendations received from stockholders will be evaluated by following substantially the same process, and applying the same criteria, used to evaluate potential nominees suggested by members of our Board of Directors, management or other parties.

Under our bylaws, stockholders wishing to suggest a candidate for director should write to our corporate secretary. In order to give the nominating and corporate governance committee sufficient time to evaluate a recommended candidate and/or include the candidate in our proxy statement for the 2021 annual meeting, the recommendation should be received by our corporate secretary at our principal executive offices in accordance with our procedures detailed in the section below entitled "Stockholder Proposals." Such submissions must state the nominee's name, together with appropriate biographical information and background materials, and information with respect to the stockholder or group of stockholders making the recommendation, including the number of shares of common stock owned by such stockholder or group of stockholders, as well as other information required by our bylaws. We may require any proposed nominee to furnish such other information as we may reasonably require to determine the eligibility of such proposed nominee to serve as an independent director or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such proposed nominee.

Director Attendance at Annual Meetings

Under our corporate governance guidelines, members of our Board of Directors are responsible for attending our Annual Meeting, and we encourage all of our directors to attend. All of our directors then serving attended our 2019 annual meeting of stockholders.

Communications with Our Board of Directors

Stockholders seeking to communicate with our Board of Directors should submit their written comments to Catabasis Pharmaceuticals, Inc., 100 High Street, 28th Floor, Boston, MA 02110, Attention: Corporate Secretary. The corporate secretary will forward such communications to each member of our Board of Directors; provided that, if, in the opinion of our corporate secretary, it would be inappropriate to send a particular stockholder communication to a specific director, such communication will only be sent to the remaining directors (subject to the remaining directors concurring with such opinion).

Director Compensation

We do not provide any compensation to Dr. Milne, our President and Chief Executive Officer, for her service as a director. Dr. Milne's compensation as an executive officer is set forth below under "Executive Compensation—2019 Summary Compensation Table."

Under our director compensation program, we pay our non-employee directors a cash retainer for service on the Board of Directors and for service on each committee on which the director is a member. The Chairman of the Board of Directors and the chairman of each committee receive higher

retainers for such service. These fees are payable in arrears in four equal quarterly installments on the last day of each quarter, provided that the amount of such payment is prorated for any portion of such quarter that the director is not serving on our Board of Directors. The fees paid to non-employee directors for service on the Board of Directors and for service on each committee of the Board of Directors on which the director is a member are as follows:

	<u>Member Annual Fee</u>	<u>Chairman Incremental Annual Fee</u>
Board of Directors	\$ 35,000	\$ 35,000(1)
Audit Committee	\$ 7,500	\$ 12,500
Compensation Committee	\$ 5,000	\$ 5,000
Nominating and Corporate Governance Committee	\$ 3,750	\$ 3,750
Science and Technology Committee	\$ 5,000	\$ 5,000

(1) In the event co-chairmen are appointed, the retainer for Chairman of the Board will be divided equally between the co-chairmen.

We also reimburse our non-employee directors for reasonable travel and out-of-pocket expenses incurred in connection with attending our Board of Directors and committee meetings.

In February 2019, our Board of Directors adopted an amended non-employee director equity compensation program, effective as of January 1, 2019. Under the amended non-employee director equity compensation program, each new non-employee director elected to our Board of Directors receives an option to purchase 15,000 shares of our common stock, which option vests in equal annual installments over a three-year period measured from the date of grant, subject to the director's continued service as a director. Further, on the date of the first Board of Directors meeting held after each annual meeting of stockholders, each non-employee director that has served on our Board of Directors for at least six months will receive an option to purchase 7,500 shares of our common stock. Each of these options will vest in full after a one-year period measured from the date of grant, subject to the director's continued service as a director. The exercise price of all options granted to directors will equal the fair market value of our common stock on the date of grant. Options granted to non-employee directors become exercisable in full upon a change in control of Catabasis.

This policy is intended to provide a total compensation package that enables us to attract and retain qualified and experienced individuals to serve as directors and to align our directors' interests with those of our stockholders.

The following table sets forth information regarding compensation earned by our non-employee directors during 2019. Dr. Ross resigned as a Class III director on February 14, 2019. Ms. George resigned as a Class II director on June 4, 2019. Mr. Lapointe joined our Board of Directors in January 2019, Dr. Beck joined our Board of Directors in February 2019 and Mr. Cole joined our Board of Directors in July 2019. Dr. Milne is excluded from the table because she is an executive officer, and

her compensation is set forth in the compensation section below under the heading "Executive Compensation."

<u>Name</u>	<u>Fees Earned or Paid In Cash (\$)</u>	<u>Option Awards \$(1)</u>	<u>Total (\$)</u>
Michael Ross, Ph.D.	27,188	—	27,188
Jean George	29,688	—	29,688
Kenneth Bate	83,438	29,900	113,338
Burt Adelman, M.D.	45,000	29,900	74,900
Michael Kishbauch	52,500	29,900	82,400
Gregg Lapointe	37,771	43,794	81,565
Joanne Beck	27,611	43,435	71,046
Hugh Cole	6,346	66,371	72,717

- (1) The amounts included in the "Option Awards" column reflect the aggregate grant date fair value of awards granted during 2019 calculated in accordance with Financial Accounting Standards Board, or FASB, Accounting Standard Codification, or ASC, Topic 718. Assumptions used in the calculation of these amounts are included in Note 9 to the consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 previously filed with the SEC. As of December 31, 2019:
- Dr. Ross did not hold any stock options to purchase shares of common stock. As of his resignation on February 14, 2019, Dr Ross' non-vested options were cancelled, and the remainder of his options expired three months subsequent to that date.
 - Ms. George did not hold any stock options to purchase shares of common stock. As of her resignation on June 4, 2019, Ms. George's non-vested options were cancelled, and the remainder of her options expired three months subsequent to that date.
 - Mr. Bate held stock options to purchase an aggregate of 12,297 shares of common stock, 4,797 shares of which were vested as of December 31, 2019; 7,500 of the shares are scheduled to vest on June 4, 2020.
 - Dr. Adelman held stock options to purchase an aggregate of 10,850 shares of common stock, 3,350 shares of which were vested as of December 31, 2019; 7,500 of the shares are scheduled to vest on June 4, 2020.
 - Mr. Kishbauch held stock options to purchase an aggregate of 10,850 shares of common stock, 3,350 shares of which were vested as of December 31, 2019; 7,500 of the shares are scheduled to vest on June 4, 2020.
 - Mr. Lapointe held stock options to purchase an aggregate of 15,000 shares of common stock, none of which were vested as of December 31, 2019; 933 of the shares vested on January 3, 2020; 4,067 of the shares vested on February 13, 2020; 934 of the shares are scheduled to vest on January 3, 2021; 4,066 of the shares are scheduled to vest on February 13, 2021; 933 of the shares are scheduled to vest on January 3, 2022; and 4,067 of the shares are scheduled to vest on February 13, 2022.
 - Dr. Beck held stock options to purchase an aggregate of 15,000 shares of common stock, none of which were vested as of December 31, 2019; 5,000 of the shares vested on February 13, 2020; 5,000 of the shares are scheduled to vest on February 13, 2021; and 5,000 of the shares are scheduled to vest on February 13, 2022.
 - Mr. Cole held stock options to purchase an aggregate of 15,000 shares of common stock, none of which were vested as of December 31, 2019; 5,000 of the shares are scheduled to vest on July 26, 2020; 5,000 of the shares are scheduled to vest on July 26, 2021; and 5,000 of the shares are scheduled to vest on July 26, 2022.

EXECUTIVE OFFICERS

The following table sets forth information regarding our executive officers:

Name	Age	Position(s)
Jill C. Milne, Ph. D.	52	President and Chief Executive Officer, Director
Joanne Donovan, M.D., Ph. D.	63	Chief Medical Officer
Andrew Nichols, Ph. D.	59	Chief Scientific Officer
Andrew Komjathy	57	Chief Commercial Officer

The biography of Dr. Milne can be found under "Proposal 1—Election of Class II Directors—Information Regarding Directors."

Joanne M. Donovan, M.D., Ph.D., has served as our Chief Medical Officer since July 2011. Since 1989, she has worked as a staff physician at the VA Boston Healthcare System, where she was formerly Chief of Gastroenterology. Dr. Donovan has held an appointment at Harvard Medical School since 1990, most recently as associate clinical professor of medicine. From 1998 to July 2011, Dr. Donovan served in positions of increasing responsibility, ultimately as vice president of clinical development, at Genzyme, a biotechnology company, which she joined through its acquisition of GelTex. Dr. Donovan holds a Ph.D. in medical engineering and medical physics from the Massachusetts Institute of Technology, an M.D. from Harvard Medical School and an S.B. from the Massachusetts Institute of Technology. She completed residency training in internal medicine and a fellowship in gastroenterology at the Brigham and Women's Hospital.

Andrew Nichols, Ph.D., has served as our Chief Scientific Officer since October 2016. Previously, he served as our Senior Vice President, Research and Development from February 2014 to October 2016. From October 2013 to February 2014, Dr. Nichols was Associate Vice President, Cardiometabolic Diseases at Merck Research Labs, a pharmaceutical research company, leading drug discovery and early clinical development programs. Dr. Nichols was also Associate Vice President/Executive Director, In Vivo Pharmacology at Merck Research Labs from August 2010 to October 2013, and Executive Director, In Vivo Sciences at Merck Research Labs from August 2009 to August 2010. Prior to Merck, Dr. Nichols was Vice President of Preclinical Research at Zafgen, Vice President of Research at Alinea, Vice President of Drug Discovery Project Leadership at Millennium and Director of the Alliance Management Group at SmithKline Beecham. He holds an M. Phil. and Ph.D. in Cardiovascular Pharmacology from the University of Cambridge, England and a B.Sc. in Pharmacology from the University of Leeds, England.

Andrew Komjathy has served as our Chief Commercial Officer since September 2019. Previously, Mr. Komjathy was the Vice President, Commercial Sales at Alkermes, Inc., a publicly held pharmaceutical company, from May 2014 to November 2018. From 2012 to 2014, he was the Vice President, Sales for the U.S. Multiple Sclerosis Business Unit at Genzyme, a publicly held pharmaceutical company. From 2005 to 2012, Mr. Komjathy held three Vice President positions at Shire Human Genetic Therapies, initially as Vice President and General Manager, Commercial Operations in the North American and Asia-Pacific regions, followed by Vice President, Global Franchise Leader for Fabry/Gaucher in Switzerland, and ultimately as Vice President, Commercial Operations. From 1996 to 2005, Mr. Komjathy held positions of increasing responsibility at Biogen. Mr. Komjathy holds an M.B.A. from New York University Stern School of Business and his B.S. in Business Administration from Bucknell University.

EXECUTIVE COMPENSATION

This section describes the material elements of compensation awarded to, earned by or paid to each of our named executive officers, or NEOs. Our NEOs for 2019 are Jill C. Milne, Joanne M. Donovan, and Andrew Nichols. This section also provides qualitative information regarding the manner and context in which compensation is awarded to and earned by our executive officers and is intended to place in perspective the data presented in the tables and narrative that follow.

2019 Summary Compensation Table

The following table sets forth information regarding compensation earned in 2019 and 2018 by our NEOs.

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus \$(1)</u>	<u>Option Awards \$(2)</u>	<u>All Other Compensation \$(3)</u>	<u>Total (\$)</u>
Jill C. Milne, Ph.D.	2019	500,891	231,662	298,253	1,991	1,032,797
<i>President and Chief Executive Officer</i>	2018	476,132	349,259	309,085	1,693	1,136,170
Joanne M. Donovan, M.D., Ph.D.	2019	423,783	168,454	119,301	2,172	713,710
<i>Chief Medical Officer</i>	2018	411,440	256,347	157,568	1,732	827,087
Andrew Nichols, Ph.D.	2019	367,920	142,569	119,301	2,155	631,945
<i>Chief Scientific Officer</i>	2018	357,204	198,770	157,568	1,732	715,274

- (1) The amounts reported in the "Bonus" column represent discretionary cash bonuses awarded to our NEOs.
- (2) The amounts reported in the "Option Awards" column reflect the aggregate grant date fair value of share-based compensation awarded during the year computed in accordance with the provisions of FASB ASC Topic 718. See Note 9 to the consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 previously filed with the SEC.
- (3) The amounts reported in the "All Other Compensation" column reflect, for each NEO, the cost to us of life insurance premiums paid for the NEO.

Narrative to Summary Compensation Table

We review compensation annually for all employees, including our executives. In setting executive base salaries and bonuses and granting equity incentive awards, we consider compensation for comparable positions in the market, the historical compensation levels of our executives, individual performance as compared to our expectations and objectives, our desire to motivate our employees to achieve short- and long-term results that are in the best interests of our stockholders, and a long-term commitment to our company. We do not target a specific competitive position or a specific mix of compensation among base salary, bonus or long-term incentives.

Our Chief Executive Officer typically proposes base salary, target bonuses, and equity incentive compensation for members of our executive team (excluding herself) to the compensation committee. Her proposals are based on the Company's pay philosophy and methodology and in-line with executive compensation for similarly situated executives at peer companies. Our compensation committee then typically reviews and discusses the proposals with the Chief Executive Officer for all executives other than the Chief Executive Officer. The compensation committee, without the Chief Executive Officer present, further discusses the Chief Executive Officer's recommendations and ultimately recommends for our Board of Directors' approval the base salary, target bonuses and equity incentive compensation

of our executive officers for the current year, as well as the amount of executive officer cash bonuses for the prior year, based on the attainment of corporate and individual goals. The Chief Executive Officer is not present during voting or deliberations regarding her compensation by the compensation committee or the Board of Directors. During 2019, our compensation committee engaged Radford as its independent compensation consultant, to review our executive compensation peer group and program design and assess our executives' compensation relative to comparable companies. See "Corporate Governance—Committees of the Board of Directors—Compensation Committee" for more information about the engagement of Radford by the compensation committee.

Base salary. In 2019, we paid annual base salaries to Dr. Milne, Dr. Donovan and Dr. Nichols in the amounts of \$500,891, \$423,783, and \$367,920, respectively. These 2019 annual base salaries reflected a market-based merit increase from 2018 of 3.8% for Dr. Milne and 3.0% for Dr. Donovan and Dr. Nichols. These base salaries were determined using a competitive assessment of similarly situated executives at our peer companies to make them competitive with the 50th percentile, as well as to address customary annual base salary increases and to recognize their individual performance. We use base salaries to recognize the experience, skills, knowledge and responsibilities required of all our employees, including our NEOs. None of our NEOs is currently party to an employment agreement or other agreement or arrangement that provides for automatic or scheduled increases in base salary.

Bonuses. Our Board of Directors may, in its discretion, award bonuses to our NEOs from time to time. We typically establish annual bonus targets based around a set of specified corporate goals for our NEOs, along with individual goals, and conduct an annual performance review to determine the attainment of such goals. Our compensation committee recommends, and our Board approves, target percentages of annual base salary for our NEOs based on target percentages for similar executives at our peer companies to make these percentages competitive with the 50th percentile, which for 2019 were 50%, 40% and 40% for Drs. Milne, Donovan and Nichols, respectively. Our management may propose bonus awards to the compensation committee, or the Board of Directors, primarily based on such review process and such target percentages. Our compensation committee makes a recommendation to the Board of Directors regarding eligibility requirements for and the amount of such bonus awards. With respect to 2019, we paid annual bonuses to Drs. Milne, Donovan or Nichols, in the amounts of \$231,662, \$168,454, and \$142,569, respectively.

Equity incentives. Although we do not have a formal policy with respect to the grant of equity incentive awards to our executive officers, or any formal equity ownership guidelines applicable to them, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our executives and our stockholders. In addition, we believe that equity grants with a time-based vesting feature promote executive retention because this feature incentivizes our executive officers to remain in our employment during the vesting period. Accordingly, we typically grant stock option awards at the start of employment to each executive officer and our other employees and our compensation committee and Board of Directors periodically review the equity incentive compensation of our NEOs and other employees and from time to time may grant equity incentive awards to them in the form of stock options.

In 2019, our Board of Directors granted options to purchase 100,000, 40,000 and 40,000 shares of our common stock to Dr. Milne, Dr. Donovan and Dr. Nichols, respectively, as part of a review of their overall annual compensation. For grants in connection with initial employment, vesting begins on the initial date of employment. Time vested stock option grants to our executives and other employees typically vest 25% on the first anniversary of grant or, in the case of new hire grants, the initial employment date, if earlier, and 2.0833% per month thereafter, through the fourth anniversary of the vesting commencement date, and have a term of 10 years from the grant date. The exercise price of all options is equal to the fair market value of our common stock on the date of grant.

Outstanding Equity Awards at 2019 Fiscal Year End Table

The following table sets forth information regarding outstanding stock options held by our NEOs as of December 31, 2019.

Name	Option Awards			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date
Jill C. Milne, Ph.D.	8,427	—	\$ 16.70	02/28/2021
	2,229	—	\$ 23.10	12/17/2022
	3,247	—	\$ 23.10	12/17/2022
	2,860	—	\$ 23.10	04/16/2023
	5,836	—	\$ 68.10	03/18/2024
	933	—	\$ 110.50	03/25/2025
	16,000	—	\$ 140.50	07/16/2025
	9,872	428(1)	\$ 45.70	02/10/2026
	3,657	843(2)	\$ 43.10	09/07/2026
	14,172	5,828(3)	\$ 12.40	02/08/2027
	10,544	12,456(4)	\$ 12.80	02/07/2028
	14,378	8,622(5)	\$ 7.10	09/06/2028
	—	100,000(6)	4.39	02/12/2029
	Joanne M. Donovan, M.D., Ph.D.	2,723	—	\$ 19.30
2,458		—	\$ 23.10	12/17/2022
720		—	\$ 23.10	12/17/2022
1,049		—	\$ 23.10	12/17/2022
1,430		—	\$ 23.10	04/16/2023
2,529		—	\$ 68.10	03/18/2024
466		—	\$ 110.50	03/25/2025
6,326		274(1)	\$ 45.70	02/10/2026
3,661		839(2)	\$ 43.10	09/07/2026
7,085		2,915(3)	\$ 12.40	02/08/2027
4,586		5,414(4)	\$ 12.80	02/07/2028
9,376		5,624(5)	\$ 7.10	09/06/2028
—		40,000(6)	4.39	02/12/2029
Andrew Nichols, Ph.D.		5,836	—	\$ 68.10
	272	—	\$ 110.50	03/25/2025
	778	—	\$ 110.50	04/29/2025
	2,492	108(1)	\$ 45.70	02/10/2026
	3,253	747(2)	\$ 43.10	09/07/2026
	1,030	270(7)	\$ 57.90	10/02/2026
	7,085	2,915(3)	\$ 12.40	02/08/2027
	4,586	5,414(4)	\$ 12.80	02/07/2028
	9,375	5,625(5)	\$ 7.10	09/06/2028
—	40,000(6)	\$ 4.39	02/12/2029	

(1) The unvested awards subsequently vested in full as of February 11, 2020.

(2) The unvested awards are scheduled to vest in equal monthly installments through September 8, 2020.

- (3) The unvested awards are scheduled to vest in equal monthly installments through February 9, 2021.
- (4) The unvested awards are scheduled to vest in equal monthly installments through February 8, 2022.
- (5) The unvested awards are scheduled to vest in equal monthly installments through September 6, 2020.
- (6) 25% of the unvested awards subsequently vested on February 13, 2020. The remaining unvested awards are scheduled to vest in equal monthly installments through February 12, 2023.
- (7) The unvested awards are scheduled to vest in equal monthly installments through October 3, 2020.

Employment Agreements, Severance and Change in Control Arrangements

Employment Agreements with NEOs

We have entered into an employment agreement with Dr. Milne, dated as of April 7, 2010. The employment agreement confirms Dr. Milne's title, compensation arrangements and eligibility for benefits made available to employees generally. The employment agreement with Dr. Milne provides that she is eligible to receive an annual cash bonus, as determined by the Board of Directors in its sole discretion, with a target of 40% of her annual base salary earned in such particular calendar year, which percentage will be subject to adjustment from time to time by the Board of Directors in its sole discretion. The Board of Directors has approved for 2020 a target cash bonus (expressed as a percentage of base salary) of up to 50% for Dr. Milne based on its assessment of the Company's performance against established annual goals.

The Board of Directors has approved for 2020 a target cash bonus of up to 40% of annual base salary for each of Dr. Donovan and for Dr. Nichols, as determined in the sole discretion of the Board of Directors, based on its assessment of their respective performance and that of Catabasis against established annual goals.

Each of Drs. Milne, Donovan and Nichols is an employee at will and is entitled to certain benefits upon termination pursuant to our Severance Benefits Plan, or the Severance Plan, which was adopted by the Board of Directors in April 2016, as further described below. In connection with the adoption of the Severance Plan, each of Drs. Milne, Donovan and Nichols has acknowledged that their entitlement to severance benefits is governed by the terms of the Severance Plan and that any terms of their employment agreement or offer letter, as applicable, relating to severance have been superseded in their entirety by the terms of the Severance Plan.

Severance Plan

The Severance Plan provides eligible full time executives holding the title of vice president or above ("Covered Employees") certain severance benefits upon a termination without cause (as defined in the Severance Plan) or a resignation for good reason (as defined in the Severance Plan), including in each case within one year following a change in control (as defined in the Severance Plan) (each, a "Covered Termination"). Pursuant to the Severance Plan, each Covered Employee who is subject to a Covered Termination is entitled to:

- continuation of such Covered Employee's monthly base salary (as defined in the Severance Plan) for a period ranging from six months to 18 months (the "Severance Period") following such termination depending on the title/role of the Covered Employee and the type of Covered Termination;
- payment by Catabasis of a portion of the cost of COBRA continuation of benefits coverage for the Covered Employee and his or her applicable dependents for no longer than the Covered Employee's applicable Severance Period or until the Covered Employee commences new employment and is eligible for new plan coverage, if sooner, subject to certain conditions set forth in the Severance Plan;

- any unpaid annual bonus in respect to any completed bonus period which has ended prior to the date of the Covered Employee's Covered Termination and which the Board of Directors deems granted to the Covered Employee in its discretion pursuant to Catabasis' contingent compensation program;
- in the case of the chief executive officer of Catabasis, a bonus amount equal to one-half of the average annual bonus paid to the chief executive officer over the three calendar years preceding the calendar year in which the Covered Termination occurs, which bonus will be prorated to reflect the number of days served in the calendar year in which such Covered Termination occurs; and
- in the case of a change in control termination, full vesting of any unvested equity awards.

Receipt of any severance benefits under the Severance Plan requires that the Covered Employee: (a) comply with the provisions of any applicable noncompetition, non-solicitation, and other obligations to us; and (b) execute and deliver a suitable waiver and release under which the Covered Employee releases and discharges us and our affiliates from and on account of any and all claims that relate to or arise out of the employment relationship between us and the Covered Employee, which release will become binding within 60 days following the Covered Employee's termination of employment. If a Covered Employee dies following a Covered Termination but before such Covered Employee has received all of the severance benefits to which such Covered Employee is entitled under the Severance Plan, the remaining payments will be made to the Covered Employee's designated beneficiary or estate.

The Severance Plan provides that the following employees will not be eligible for severance benefits, except to the extent specifically determined otherwise by the Severance Plan's administrator:

- an employee who is terminated for cause (as defined in the Severance Plan);
- an employee who retires, terminates employment as a result of an inability to perform his or her duties due to physical or mental disability or dies;
- an employee who voluntarily terminates his or her employment, except in the case of a Covered Termination for good reason (as defined in the Severance Plan);
- an employee who is employed for a specific period of time in accordance with the terms of a written employment agreement; and
- an employee who promptly becomes employed by another member of the controlled group of entities of which Catabasis (or its successor in the change in control (as defined in the Severance Plan)) is a member as defined in Sections 414(b) and (c) of the Internal Revenue Code of 1986, as amended.

The Severance Plan provides for recoupment of severance benefits under specified circumstances if the Covered Employee fails to comply with the terms of the Severance Plan.

The Severance Plan supersedes (i) existing severance plans and separation policies applying to Covered Employees with respect to any termination that would constitute a Covered Termination and (ii) the provisions of any agreements between any Covered Employee and us that provide for severance benefits.

The following table summarizes the schedule of severance payments our NEOs would receive, assuming a qualifying termination occurred on December 31, 2019.

Name	Cash Severance (\$)(1)	Bonus (\$)(2)	COBRA Continuation (\$)(3)	Value of Accelerated Vesting of Equity Awards (\$)(4)	Total (\$)
<i>Jill C. Milne, Ph.D.</i>					
Termination without cause or upon resignation with good reason	500,891	74,320	18,948	—	594,159
Termination upon a change in control	751,336	74,320	28,422	152,000	1,006,078
<i>Joanne M. Donovan, M.D., Ph.D.</i>					
Termination without cause or upon resignation with good reason	423,783	—	18,948	—	442,731
Termination upon a change in control	423,783	—	18,948	60,800	503,531
<i>Andrew Nichols, Ph.D.</i>					
Termination without cause or upon resignation with good reason	367,920	—	18,948	—	386,868
Termination upon a change in control	367,920	—	18,948	60,800	447,668

- (1) These amounts represent, in the case of Dr. Milne, 12 months' base salary for a termination without cause or resignation with good reason and 18 months' base salary for a termination upon a change of control; and, in the case of Dr. Donovan and Dr. Nichols, 12 months' base salary; each at the rate in effect immediately prior to the executive's termination of employment.
- (2) These amounts represent 50% of the average performance bonus received by Dr. Milne for the three most recently completed years.
- (3) These amounts represent paid health coverage for 12 months and, in the case of Dr. Milne for a change in control termination, 18 months' paid health coverage.
- (4) The values of accelerated vesting of equity awards included in the table above are based on the intrinsic values of such unvested awards on December 31, 2019 (i.e., the difference between the closing price of our common stock on the Nasdaq Global Market on that date and the exercise price multiplied by the number of shares for which vesting would have been accelerated).

We have also entered into employee confidentiality, non-competition and proprietary information agreements with each of our NEOs. Under the employee confidentiality, non-competition and proprietary information agreements, each NEO has agreed (1) not to compete with us during his or her employment and for a period of 18 months after the termination of his or her employment, (2) not to solicit our employees during his or her employment and for a period of 18 months after the termination of his or her employment, (3) to protect our confidential and proprietary information and (4) to assign to us related intellectual property developed during the course of his or her employment.

401(k) retirement plan

We maintain a 401(k) retirement plan that is intended to be a tax-qualified defined contribution plan under Section 401(k) of the Internal Revenue Code. In general, all of our employees are eligible to participate, beginning on the first day of the month following commencement of their employment. The 401(k) plan includes a salary deferral arrangement pursuant to which participants may elect to reduce their current compensation by up to the statutorily prescribed limit, equal to \$19,000 in 2019, and have the amount of the reduction contributed to the 401(k) plan. Participants over the age of 50 are entitled to an additional catch-up contribution up to the statutorily prescribed limit, equal to \$6,000 in 2019.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The following is a description of transactions since January 1, 2018 to which we have been a party, and in which any of our directors, executive officers or beneficial owners of more than 5% of our voting securities, or affiliates or immediate family members of any of our directors, executive officers or beneficial owners of more than 5% of our voting securities, had or will have a direct or indirect material interest. We believe the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, from unrelated third parties.

Underwritten Financings

On February 3, 2020, we closed an underwritten public offering of 5,290,000 shares of common stock at a public offering price of \$5.00 per share, including 690,000 shares issued upon the exercise in full by the underwriter of its over-allotment option (the "January 2020 Financing"). In the January 2020 Financing, entities affiliated with Federated Hermes, Inc. ("Federated") a beneficial owner of more than 5% of our voting securities, purchased 925,000 shares of common stock through the underwriters at the public offering price for an aggregate purchase price of \$4.6 million. An entity affiliated with Corriente Advisors, LLC ("Corriente Advisors"), a beneficial owner of more than 5% of our voting securities, purchased 235,000 shares of common stock through the underwriters at the public offering price for an aggregate purchase price of \$1.2 million.

On February 8, 2019, we closed an underwritten public offering of 4,000,000 units at a public offering price of \$5.00 per unit, with each unit comprised of one share of common stock and half of a warrant to purchase one share of common stock at an exercise price of \$6.25 per share (the "February 2019 Financing"). In the February 2019 Financing, Armistice Capital Master Fund Ltd., a beneficial owner of more than 5% of our voting securities at the time, purchased 840,000 units through the underwriters at the public offering price for an aggregate purchase price of \$4.2 million. Stonepine Capital, L.P., a beneficial owner of more than 5% of our voting securities at the time, purchased 300,000 units through the underwriters at the public offering price for an aggregate purchase price of \$1.5 million. Entities affiliated with Federated, a beneficial owner of more than 5% of our voting securities, purchased 1,125,000 units through the underwriters at the public offering price for an aggregate purchase price of \$5.6 million, Corriente Advisors, a beneficial owner of more than 5% of our voting securities, purchased 175,000 units through the underwriters at the public offering price for an aggregate purchase price of \$0.9 million.

On June 22, 2018, we closed an underwritten public offering of 4,200,000 common units at a public offering price of \$10.00 per unit, with each common unit comprised of one share of common stock and one warrant to purchase one share of common stock at an exercise price of \$12.00 per share (the "June 2018 Financing"). In the June 2018 Financing, Corriente Advisors, a beneficial owner of more than 5% of our voting securities, purchased 100,000 common units through the underwriters at the public offering price for an aggregate purchase price of \$1.0 million.

Employment, Severance and Change in Control Agreements

See "Executive Compensation—Employment Agreements, Severance and Change in Control Arrangements" above for a discussion of these arrangements.

Indemnification of Officers and Directors

Our certificate of incorporation provides that we will indemnify our directors and officers to the fullest extent permitted by Delaware law. In addition, we have entered into indemnification agreements with each of our directors and executive officers that may be broader in scope than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification

agreements require us, among other things, to indemnify each such director and executive officer for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of our directors or executive officers. In addition, we maintain standard policies of insurance under which coverage is provided to our directors and officers against losses arising from claims made by reason of breach of duty or other wrongful act, and to us with respect to payments which may be made by us to such directors and officers pursuant to the above indemnification provisions or otherwise as a matter of law.

Policies and Procedures for Related Person Transactions

Our Board of Directors has adopted a written related person transaction policy to set forth policies and procedures for the review and approval or ratification of related person transactions. This policy covers any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, the amount involved exceeds \$120,000, and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person.

Our related person transaction policy contains exceptions for any transaction or interest that is not considered a related person transaction under SEC rules as in effect from time to time. In addition, the policy provides that an interest arising solely from a related person's position as an executive officer of another entity that is a participant in a transaction with us will not be subject to the policy if each of the following conditions is met:

- the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity;
- the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction with us and do not receive any special benefits as a result of the transaction; and
- the amount involved in the transaction equals less than the greater of \$200,000 or 5% of the annual gross revenue of the company receiving payment under the transaction.

The policy provides that any related person transaction proposed to be entered into by us must be reported to our chief legal officer or chief financial officer and will be reviewed and approved by our audit committee in accordance with the terms of the policy, prior to effectiveness or consummation of the transaction whenever practicable. The policy provides that if our chief legal officer or chief financial officer determines that advance approval of a related person transaction is not practicable under the circumstances, our audit committee will review and, in its discretion, may ratify the related person transaction at the next meeting of the audit committee. The policy also provides that alternatively, our chief legal officer or chief financial officer may present a related person transaction arising in the time period between meetings of the audit committee to the chair of the audit committee, who will review and may approve the related person transaction, subject to ratification by the audit committee at the next meeting of the audit committee.

In addition, the policy provides that any related person transaction previously approved by the audit committee or otherwise already existing that is ongoing in nature will be reviewed by the audit committee annually to ensure that such related person transaction has been conducted in accordance with the previous approval granted by the audit committee, if any, and that all required disclosures regarding the related person transaction are made.

The policy provides that transactions involving compensation of executive officers will be reviewed and approved by our compensation committee in the manner to be specified in the charter of the compensation committee.

A related person transaction reviewed under this policy will be considered approved or ratified if it is authorized by the audit committee in accordance with the standards set forth in the policy after full disclosure of the related person's interests in the transaction. As appropriate for the circumstances, the policy provides that the audit committee will review and consider:

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

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

PROPOSAL NO. 2—TO APPROVE AN AMENDED AND RESTATED 2015 STOCK INCENTIVE PLAN

On March 29, 2020, our board of directors unanimously approved, subject to stockholder approval, an amendment and restatement of our Amended and Restated 2015 Stock Incentive Plan (the "2015 Plan"). We are asking our stockholders to approve the Amended and Restated 2015 Stock Incentive Plan, as so further amended and restated as approved by our board of directors (the "Amended and Restated 2015 Plan"). If approved by stockholders, the Amended and Restated 2015 Plan would:

- increase the number of shares of our common stock that may be issued under the 2015 Plan by 2,000,000, increasing the maximum number of shares issuable under the 2015 Plan from 1,372,248 to 3,372,248 (the "Plan Increase"); and
- provide that shares of common stock repurchased by us on the open market using the proceeds from the exercise of an award will not increase the number of shares available for future grant of awards.

Why We Are Requesting Stockholder Approval of the Amended and Restated 2015 Plan

We believe that our future success depends, in large part, upon our ability to maintain a competitive position in attracting, retaining and motivating persons who are expected to make important contributions to our company by providing such persons with equity ownership opportunities and performance-based incentives. The life sciences industry in the Cambridge and Boston, Massachusetts market is highly competitive, and our results are largely attributable to the talents, expertise, efforts and dedication of our employees. Our compensation program, including the granting of equity compensation, is the primary means by which we attract and recruit new employees, as well as retain our most experienced and skilled employees.

Equity compensation is also fundamental to our compensation philosophy and core objectives of paying for performance and aligning the interests of employees with those of stockholders. A significant portion of our employees' compensation is provided in the form of equity. We believe that equity awards, and the potential they hold for appreciation through an increase in our stock price, support our pay-for-performance philosophy, provide further incentive to our employees to focus on creating long-term stockholder value and create an ownership culture that links employees' interests with those of our stockholders and our long-term results, performance, and financial condition.

The outstanding incentive equity holdings of our plan participants were significantly diluted by (i) our February 2019 Financing, which resulted in the issuance of 4.0 million units at a price of \$5.00 per unit, with each unit comprised of one share of common stock and half of a warrant to purchase one share of common stock at an exercise price of \$6.25 per share, and (ii) the January 2020 Financing, which resulted in the issuance of 5.3 million shares of common stock at a price of \$5.00 per share, which includes 690,000 shares issued upon the exercise in full by the underwriter of its overallotment option. The shares of common stock acquirable upon the exercise of outstanding stock options based on shares of common stock and vested and unvested equity awards outstanding as of March 31, 2020, represent approximately 10.4% of our fully diluted capitalization immediately prior to the February 2019 Financing, and approximately 6.5% of fully diluted capitalization immediately prior to the January 2020 Financing. This percentage declined to 5.2% of our fully diluted capitalization, as of March 31, 2020, primarily due to the January 2020 Financing. In addition, as of March 31, 2020, 100% of our outstanding stock options were underwater, with a weighted-average exercise price of \$12.01 per share and individual option exercise prices ranging up to \$140.50 per share as compared to the \$5.51 per share closing price of our common stock on the Nasdaq Global Market on April 24, 2020. Accordingly, we believe that our plan participants currently have a very limited opportunity to participate in any future appreciation in the value of our common stock. For example, if the value of our common stock tripled from its closing price on the Nasdaq Global Market of \$5.51 on April 24, 2020 to \$16.53 per

share, plan participants would be entitled to realize less than 4.3% of the increased equity value of our company on a fully diluted basis assuming full acceleration of all vesting provisions. We believe that such a limited opportunity to participate in appreciation in the value of our common stock results in such outstanding options holding insufficient retention value for our plan participants, puts us at risk of not being able to retain our most experienced and skilled individuals and provides for insufficient alignment of our plan participants' interests with those of our stockholders.

As of March 31, 2020, we had 104,181 shares available for grant under the 2015 Plan, and there were no shares available under the 2008 Plan. The shares available represent 0.6% of the sum of (i) the total number of our shares of common stock outstanding, plus (ii) the total number of shares available for grant under the 2015 Plan. As all outstanding options were underwater as of March 31, 2020, they were not included in the calculation. During the years ended December 31, 2018 and 2019 and the three months ended March 31, 2020, we granted equity awards with respect to 213,384, 454,420 and 452,500 shares, respectively, to employees, non-employee directors and consultants under our 2015 Plan. A summary of outstanding stock options granted under our 2008 Plan and 2015 Plan, our shares available for grant under our 2015 Plan, and related information for employees and nonemployees as of March 31, 2020 follows:

<u>Options Outstanding</u>	<u>Shares Available for Grant</u>	<u>Weighted Average Exercise Price of Options Outstanding</u>	<u>Weighted Average Remaining Contractual Term of Options Outstanding (Years)</u>	<u>Aggregate Intrinsic Value (in thousands)</u>
1,206,644	104,181	\$ 12.01	8.65	\$ —

No restricted stock or restricted stock unit awards (or other such "full-value" awards) were outstanding as of March 31, 2020. Without the Plan Increase, we believe that we would not have sufficient shares available for grant under the 2015 Plan to make a company-wide annual equity award grant in 2021 or to make meaningful equity incentive grants to any potential new employees. Without the Plan Increase, we believe that we would be forced to rely on providing cash-settled awards for a portion of our incentive-based compensation in order to retain our most experienced and skilled employees, which we believe would put us at a competitive disadvantage in our industry and would not be in our stockholders' best interests as it would remove incentives aligning the interests of our employees and our senior leaders with those of our stockholders to drive company-wide performance and create long-term stockholder value.

In determining the amount of the proposed Plan Increase amount, we considered several factors, including the number of options shares needed for annual employee option grants over the next two to three years, which we estimated at 3% to 4% of our outstanding stock at the time of such grants, the number of option shares needed for new hires over the next two to three years, including anticipated hires and potential performance grants to employees to align employee interests with specified program, strategic and financial priorities. If stockholders approve the Amended and Restated 2015 Plan, we will have 2,104,181 shares of common stock available for issuance pursuant to future awards under the Amended and Restated 2015 Plan. Given our historical and projected utilization and assuming relative stock price stability, we expect that this number of shares available for issuance will meet our grant needs for the next two to three years.

In addition to the Plan Increase, the Amended and Restated 2015 Plan would implement a change to the 2015 Plan designed to protect stockholders against potential additional dilution under the 2015 Plan in connection with share repurchases. Specifically, the Amended and Restated 2015 Plan would provide that shares of common stock repurchased by us on the open market using the proceeds from the exercise of an award will not increase the number of shares available for future grant of awards.

Vote Required and Recommendation of the Board of Directors

To be approved, this proposal requires the affirmative vote of the majority of the shares of common stock present or represented by proxy and voted "for" or "against" the proposal. Abstentions and broker non-votes with respect to this proposal will be counted for purposes of establishing a quorum and, if a quorum is present, abstentions and broker non-votes will have no effect on the outcome of the vote on this proposal.

We believe that the Amended and Restated 2015 Plan and the Plan Increase will serve a critical role in attracting and retaining the high caliber employees and consultants essential to our success and in motivating these individuals to strive to enhance our growth and profitability. Therefore, our board of directors urges you to vote to approve the Plan Amendment Proposal.

Our directors and executive officers have an interest in this proposal by virtue of their being eligible to receive equity awards under the Amended and Restated 2015 Plan. If the Plan Amendment Proposal is approved, we plan to file a registration statement on Form S-8 with the SEC to register the additional shares of common stock authorized under the Amended and Restated 2015 Plan by the Plan Increase.

OUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT STOCKHOLDERS VOTE "FOR" THE PLAN AMENDMENT PROPOSAL.

Summary of the Amended and Restated 2015 Plan

The following summary of the Amended and Restated 2015 Plan assumes and gives effect to stockholder approval of the Plan Amendment Proposal and is qualified in its entirety by the specific language of the Amended and Restated 2015 Plan, which is set forth in *Appendix A* to this proxy statement, with the proposed new text underlined, bolded and italicized and the proposed deleted text marked as struck out.

Purpose. The purpose of the Amended and Restated 2015 Plan is to advance the interests of our stockholders by enhancing our ability to attract, retain and motivate persons who are expected to make important contributions to our company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to better align the interests of such persons with those of our stockholders.

Eligibility. All of our employees, officers and directors, as well as consultants and advisors to our company, are eligible to be granted awards under the Amended and Restated 2015 Plan; however, incentive stock options may only be granted to our employees.

Shares Available for Awards. An aggregate of 3,372,248 shares of our common stock will be authorized for issuance under the Amended and Restated 2015 Plan, of which 1,206,644 shares were subject to outstanding awards and 2,104,181 were available for grant of future awards, in each case as of March 31, 2020 and after giving effect to the Plan Increase of 2,000,000 shares. To the extent awards outstanding as of March 31, 2020 under our 2008 Equity Incentive Plan expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right, they will increase the number of shares authorized for issuance under the Amended and Restated 2015 Plan, subject to certain limitations specified in the Amended and Restated 2015 Plan.

All shares of our common stock covered by SARs are counted against the number of shares available for the grant of awards under the Amended and Restated 2015 Plan; provided, however, that (i) SARs that may be settled only in cash will not be so counted and (ii) if we grant a SAR in tandem with an option for the same number of shares of common stock and provide that only one such award may be exercised (a "Tandem SAR"), only the shares covered by the option, and not the shares

covered by the Tandem SAR, will be so counted, and the expiration of one in connection with the other's exercise will not restore shares to the Amended and Restated 2015 Plan.

If any award under the Amended and Restated 2015 Plan (i) expires or is terminated, surrendered or canceled without having been fully exercised or is forfeited in whole or in part (including as the result of shares of common stock subject to such award being repurchased by us at the original issuance price pursuant to a contractual repurchase right) or (ii) results in any common stock not being issued, the unused common stock covered by such award will again be available for the grant of awards under the Amended and Restated 2015 Plan, subject to specified limitations. Shares of common stock delivered (by actual delivery, attestation, or net exercise) to us by a plan participant to (1) purchase shares of common stock upon the exercise of an award or (2) satisfy tax withholding obligations (including shares retained from the award creating the tax obligation) will not be added back to the number of shares available for the future grant of awards. The Amended and Restated 2015 Plan provides that shares of common stock repurchased by us on the open market using the proceeds from the exercise of an award will not increase the number of shares available for future grants of awards.

In connection with a merger or consolidation of an entity with our company or the acquisition by us of property or stock of an entity, our board of directors may grant awards under the Amended and Restated 2015 Plan in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Such substitute awards may be granted on such terms as our board of directors deems appropriate in the circumstances, notwithstanding any limitations on awards contained in the Amended and Restated 2015 Plan. Such substitute awards will not count against the overall share limit under the Amended and Restated 2015 Plan, except as may be required by reason of Section 422 and related provisions of the Code and the regulations thereunder.

Plan Administration. Our board of directors administers the Amended and Restated 2015 Plan and has authority to grant awards and to adopt, amend and repeal the administrative rules, guidelines and practices relating to the Amended and Restated 2015 Plan and to construe and interpret the terms of the plan and any award agreements entered into under the plan. Our board of directors may correct any defect, supply any omission or reconcile any inconsistency in the Amended and Restated 2015 Plan or any award under the plan in the manner and to the extent it deems expedient and it is the sole and final judge of such expediency. All decisions by our board of directors are made in the board's sole discretion and are final and binding on all persons having or claiming any interest in the Amended and Restated 2015 Plan or in any award under the plan.

Our board of directors may delegate any or all of its powers under the Amended and Restated 2015 Plan to one or more committees or subcommittees of the board. Our board of directors has authorized its compensation committee to administer the Amended and Restated 2015 Plan, including delegation to the compensation committee of the authority to interpret the terms of the Amended and Restated 2015 Plan, to grant options thereunder and to make stock awards thereunder; provided, however, that, the compensation committee is not authorized to amend the Amended and Restated 2015 Plan. Our board of directors may also delegate authority to an executive officer to grant awards under the Amended and Restated 2015 Plan to employees other than executive officers, provided that the board will fix the terms of the awards to be granted by such executive officer, including the exercise price of such awards (or a formula for establishing such price), and the maximum number of shares subject to awards that such executive officer may make. All references that we make to our board of directors in this summary of the Amended and Restated 2015 Plan are also intended to include reference to any committee or subcommittee of the board or officer to whom our board of directors has delegated authority under the Amended and Restated 2015 Plan.

Types of Awards. The Amended and Restated 2015 Plan authorizes the award of stock options, SARs, restricted stock awards, restricted stock units and other stock-based awards.

Stock Options. Stock options entitle the holder to purchase a specified number of shares of common stock at a specified exercise price, subject to such other terms and conditions as are specified in connection with the option grant. The Amended and Restated 2015 Plan allows for the grant of nonqualified stock options as well as incentive stock options, which qualify under Section 422 of the Code and may be granted only to our employees or employees of any parent or subsidiary of ours. The exercise price of incentive stock options and nonqualified stock options granted under the Amended and Restated 2015 Plan will not be less than the fair market value of a share of our common stock on the date of grant. The maximum term of options granted under Amended and Restated 2015 Plan is ten years.

Stock Appreciation Rights. SARs entitle the holder, upon exercise, to receive an amount of common stock or cash or a combination thereof determined by reference to appreciation, from and after the date of grant, in the fair market value of our common stock over the measurement price of the SAR. The per share measurement price of a SAR granted under the Amended and Restated 2015 Plan may not be less than the fair market value of a share of our common stock on the date of grant. The maximum term of SARs granted under Amended and Restated 2015 Plan is ten years.

Restricted Stock Awards. Restricted stock awards entitle the recipient to acquire shares of common stock subject to our right to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeitures of such shares if issued at no cost) from the recipient in the event that conditions specified in the applicable award are not satisfied prior to the end of the applicable restriction period or periods specified in the award.

Restricted Stock Units. Restricted stock units entitle the recipient to receive such number of shares of common stock or (if so provided in the applicable award agreement) an amount of cash equal to the fair market value of such number of shares of common stock as are set forth in the applicable award agreement.

Other Stock-Based Awards. The Amended and Restated 2015 Plan authorizes other awards of shares of common stock and other awards that are valued in whole or in part by reference to, or are otherwise based on, shares of common stock or other property, having such terms and conditions as our board of directors may determine ("Other Stock-Based Awards"). Other Stock-Based Awards are available as a form of payment in the settlement of other awards granted under the Amended and Restated 2015 Plan or as payment in lieu of compensation to which a participant under the plan is otherwise entitled. Other Stock-Based Awards may be paid in shares of common stock or cash, as our board of directors may determine.

Limitation on Repricing of Stock Options and SARs. With respect to stock options and SARs, unless such action is approved by our stockholders or otherwise permitted under the terms of the Amended and Restated 2015 Plan as an equitable adjustment in connection with certain changes in capitalization and reorganization events as described below, we may not (i) amend any outstanding stock option or SAR granted under the plan to provide an exercise or measurement price per share that is lower than the then-current exercise or measurement price per share of such outstanding stock option or SAR, (ii) cancel any outstanding stock option or SAR (whether or not granted under the plan) and grant in substitution therefor new awards under the plan (other than certain substitute awards described above) covering the same or a different number of shares of common stock and having an exercise or measurement price per share lower than the then-current exercise or measurement price per share of the cancelled stock option or SAR, (iii) cancel in exchange for a cash payment any outstanding stock option or SAR with an exercise or measurement price per share above the then-current fair market value of a share of our common stock or (iv) take any other action under the plan that constitutes a "repricing" within the meaning of the rules of Nasdaq.

Restrictions on Dividends and Dividend Equivalents. The Amended and Restated 2015 Plan prohibits the payment of dividends or dividend equivalents with respect to unvested awards and the accrual of dividend equivalents with respect to stock options and SARs.

Equitable Adjustments. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event (including the Reverse Stock Split), or any dividend or distribution to holders of our common stock other than an ordinary cash dividend, we are required by the Amended and Restated 2015 Plan to make equitable adjustments (or make substitute awards, if applicable), in a manner determined by our board of directors, to:

- the number and class of securities available under the Amended and Restated 2015 Plan;
- the share counting rules under the Amended and Restated 2015 Plan;
- the number and class of securities and exercise price per share of each outstanding option;
- the share and per-share provisions and measurement price of each outstanding SAR;
- the number of shares and the repurchase price per share subject to each outstanding restricted stock award or restricted stock unit award; and
- the share and per-share related provisions and purchase price, if any, of any outstanding Other Stock-Based Award.

Upon a merger or other reorganization event (as defined in the Amended and Restated 2015 Plan), our board of directors, may, on such terms as our board determines (except to the extent specifically provided otherwise in an applicable award agreement or other agreement between the plan participant and us), take any one or more of the following actions pursuant to the Amended and Restated 2015 Plan, as to some or all outstanding awards, other than restricted stock awards:

- provide that all outstanding awards will be assumed or substantially equivalent awards will be substituted by the successor corporation (or an affiliate thereof);
- upon written notice to a participant, provide that the participant's unexercised awards will terminate immediately prior to the consummation of such transaction unless exercised by the participant within a specified period following the date of such notice;
- provide that outstanding awards will become exercisable, realizable or deliverable, or restrictions applicable to outstanding awards will lapse, in whole or in part, prior to or upon the reorganization event;
- in the event of a reorganization event pursuant to which holders of our common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to the participants with respect to each award held by a participant equal to (1) the number of shares of our common stock subject to the vested portion of the award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such reorganization event) multiplied by (2) the excess, if any, of the cash payment for each share surrendered in the reorganization event over the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of such award;
- provide that, in connection with a liquidation or dissolution, awards convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings); or
- any combination of the foregoing.

Our board of directors is not obligated by the Amended and Restated 2015 Plan to treat all awards, all awards held by a participant or all awards of the same type, identically.

In the case of certain restricted stock units, no assumption or substitution is permitted, and the restricted stock units will instead be settled in accordance with the terms of the applicable restricted stock unit agreement.

Upon the occurrence of a reorganization event other than a liquidation or dissolution, the repurchase and other rights under each outstanding restricted stock award will continue for the benefit of the successor company and will, unless our board of directors may otherwise determine, apply to the cash, securities or other property which our common stock is converted into or exchanged for pursuant to the reorganization event, unless our board provided for the termination or deemed satisfaction of such repurchase or other rights under the restricted stock award agreement or any other agreement between the participant and us. Upon the occurrence of a reorganization event involving a liquidation or dissolution, all restrictions and conditions on each outstanding restricted stock award will automatically be deemed terminated or satisfied, unless otherwise provided in the agreement evidencing the restricted stock award or in any other agreement between the participant and us.

Transferability. Subject to limited exceptions specified in the Amended and Restated 2015 Plan, awards under the Amended and Restated 2015 Plan may not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an incentive stock option, pursuant to a qualified domestic relations order, and, during the life of the plan participant, are exercisable only by the plan participant.

Acceleration. Our board of directors may at any time provide that any award under the Amended and Restated 2015 Plan will become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

Amendment, Term and Termination. Our board of directors may amend, suspend or terminate the Amended and Restated 2015 Plan at any time, except that stockholder approval will be required to comply with applicable law or stock market requirements. No award may be granted under the Amended and Restated 2015 Plan after June 23, 2025.

U.S. Federal Income Tax Consequences

The following summary is intended only as a general guide to the U.S. federal income tax consequences of participation in the Amended and Restated 2015 Plan and does not attempt to describe all possible federal or other tax consequences of such participation or tax consequences based on particular circumstances.

Incentive Stock Options. An optionee who is granted an incentive stock option does not recognize taxable income at the time the option is granted or upon its exercise, although the exercise may subject the optionee to the alternative minimum tax. Upon a disposition of the shares more than two years after grant of the option and one year after exercise of the option, any gain or loss is treated as long-term capital gain or loss. If these holding periods are not satisfied, the optionee recognizes ordinary income at the time of disposition equal to the difference between the exercise price and the lower of (i) the fair market value of the shares at the date of the option exercise or (ii) the sale price of the shares. Any gain or loss recognized on such a premature disposition of the shares to the extent not recognized as taxable income as provided above, will be long-term or short-term capital gain or loss, depending on the holding period.

Nonqualified Stock Options. An optionee does not recognize taxable income at the time he or she is granted a nonqualified stock option. Upon exercise, the optionee recognizes taxable income generally

measured by the excess of the then fair market value of the shares over the exercise price. Any taxable income recognized in connection with an option exercise by our employee is subject to tax withholding by us. We are generally entitled to a deduction in the same amount as the ordinary income recognized by the optionee. Upon a disposition of such shares by the optionee, any difference between the sale price and the optionee's exercise price, to the extent not recognized as taxable income as provided above, is treated as long-term or short-term capital gain or loss, depending on the holding period.

Stock Appreciation Rights. A holder of a SAR does not recognize taxable income at the time he or she is granted a SAR. Upon exercise, the participant will recognize ordinary income in an amount equal to the amount of cash received and the fair market value of the shares received, and if granted to an employee, tax withholding is generally due. Any additional gain or loss recognized upon any later disposition of the shares would be capital gain or loss, depending on the holding period. We generally should be entitled to a deduction equal to the amount of ordinary income recognized by the participant.

Restricted Stock. A participant acquiring restricted stock generally will recognize ordinary income equal to the fair market value of the shares on the date our right of repurchase lapses (i.e. the date the award vests). If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. The participant may elect, pursuant to Section 83(b) of the Code, to have the date of acquisition of the shares be a date earlier than the date our repurchase rights lapses, provided such election is made no later than 30 days after the participant acquires the shares. Upon the sale of shares acquired pursuant to a restricted stock award pursuant to which an election pursuant to Section 83(b) of the Code has been made, any gain or loss, based on the difference between the sale price and the fair market value on the determination date, will be taxed as short term or long term capital gain or loss, depending on the holding period. Any taxable income recognized in connection with the grant of restricted stock by our employee is subject to tax withholding by us. The Company generally should be entitled to a deduction equal to the amount of ordinary income recognized by the participant.

Restricted Stock Units. A participant generally will recognize no income upon the grant of a restricted stock unit. Upon the settlement and/or payment of restricted stock units, participants normally will recognize ordinary income in the year of receipt in an amount equal to the cash received and the fair market value of any nonrestricted shares received. If the participant is an employee, such ordinary income generally is subject to withholding taxes. Upon the sale of any shares received, any gain or loss, based on the difference between the sale price and the fair market value will be taxed as capital gain or loss, depending on the holding period. We generally should be entitled to a deduction equal to the amount of ordinary income recognized by the participant.

Plan Benefits

As of March 31, 2020, approximately 26 employees of ours, 7 non-employee consultants and 6 non-employee directors of ours were eligible to participate in the 2015 Plan. On April 24, 2020, the closing price of our common stock on the Nasdaq Global Market was \$5.51 per share. The granting of awards under the 2015 Plan is discretionary, and, with the exception of this awards approved contingent upon stockholder approval of the Plan Amendment Proposal, we cannot now determine with certainty the number or type of awards to be granted in the future to any particular person or group.

Since the adoption of the 2015 Plan through March 31, 2020, we have granted the following stock options under the 2015 Plan to the individuals and groups listed below. In all cases, the securities

underlying such stock options were shares of our common stock. As of the date hereof we have granted only stock options and no other type of award under the 2015 Plan.

<u>Name and Position</u>	<u>Number of Shares Subject to Stock Options(1)</u>
Named Executive Officers	
Jill C. Milne, Ph.D. <i>President and Chief Executive Officer</i>	346,800
Joanne M. Donovan, M.D., Ph.D. <i>Chief Medical Officer</i>	146,100
Andrew Nichols, Ph.D. <i>Chief Scientific Officer</i>	142,900
Current executive officers who are not Named Executive Officers	132,700
All current executive officers as a group	768,500
All current directors who are not executive officers, as a group	78,009
All non-employee participants in the plan(2)	18,672
All employees who are not executive officers, as a group(3)	481,265

- (1) Options outstanding as of March 31, 2020 includes 177,195 options issued from the 2008 Plan, 42,823 of which have been exercised into common stock 75,374 shares subject to stock options that have expired without being exercised, all of which are not disclosed in this table.
- (2) Includes 10,672 shares subject to stock options that have expired without being exercised.
- (3) Includes 291 stock options that were exercised into common stock and 187,837 shares subject to stock options that have expired without being exercised.

**PROPOSAL NO. 3—RATIFICATION OF THE APPOINTMENT OF ERNST & YOUNG LLP AS
CATABASIS' INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE
FISCAL YEAR ENDING DECEMBER 31, 2020**

Our stockholders are being asked to ratify the appointment by the audit committee of the Board of Directors of Ernst & Young LLP as our independent registered public accounting firm. Ernst & Young LLP has served as the company's independent registered public accounting firm since 2010.

The audit committee is solely responsible for selecting our independent registered public accounting firm for the fiscal year ending December 31, 2020. Stockholder approval is not required to appoint Ernst & Young LLP as our independent registered public accounting firm. However, the Board of Directors believes that submitting the appointment of Ernst & Young LLP to the stockholders for ratification is good corporate governance. If the stockholders do not ratify this appointment, the audit committee will reconsider whether to retain Ernst & Young LLP. If the selection of Ernst & Young LLP is ratified, the audit committee, in its discretion, may direct the appointment of a different independent registered public accounting firm at any time it decides that such a change would be in the best interest of Catabasis and its stockholders.

A representative of Ernst & Young LLP is expected to be present at the Annual Meeting and will have an opportunity to make a statement if he or she desires to do so and to respond to appropriate questions from our stockholders.

The following table summarizes the fees Ernst & Young LLP, our independent registered public accounting firm, billed to us for each of the last two fiscal years.

	<u>Year Ended December 31,</u>	
	<u>2019</u>	<u>2018</u>
Audit Fees(1)	\$ 582,000	\$ 560,700
Audit-Related Fees(2)	—	—
Tax Fees(3)	12,875	11,730
All Other Fees(4)	—	—
Total	<u>\$ 594,875</u>	<u>\$ 572,430</u>

- (1) Audit fees consist of fees billed for professional services performed by Ernst & Young LLP for the audit of our annual consolidated financial statements, the review of interim consolidated financial statements, and related services that are normally provided in connection with registration statements.
- (2) Audit-related fees may consist of fees billed by an independent registered public accounting firm for assurance and related services that are reasonably related to the performance of the audit or review of our consolidated financial statements. There were no such fees incurred in 2019 or 2018.
- (3) Tax fees may consist of fees for professional services, including tax consulting and compliance performed by an independent registered public accounting firm.
- (4) There were no such fees incurred in 2019 or 2018.

All such accountant services and fees for 2019 were pre-approved by our audit committee in accordance with the "Pre-Approval Policies and Procedures" described below.

Pre-approval Policy and Procedures

Our Board of Directors adopted policies and procedures for the pre-approval of audit and non-audit services for the purpose of maintaining the independence of our independent auditor. We may not engage our independent auditor to render any audit or non-audit service unless either the service is approved in advance by the audit committee, or the engagement to render the service is entered into pursuant to the audit committee's pre-approval policies and procedures. Notwithstanding the foregoing, pre-approval is not required with respect to the provision of services, other than audit, review or attest services, by the independent auditor if the aggregate amount of all such services is no more than 5% of the total amount paid by us to the independent auditor during the fiscal year in which the services are provided, such services were not recognized by us at the time of the engagement to be non-audit services and such services are promptly brought to the attention of the audit committee and approved prior to completion of the audit by the audit committee.

From time to time, our audit committee may pre-approve services that are expected to be provided to us by the independent auditor during the following 12 months. At the time such pre-approval is granted, the audit committee must identify the particular pre-approved services in a sufficient level of detail so that our management will not be called upon to make a judgment as to whether a proposed service fits within the pre-approved services and, at each regularly scheduled meeting of the audit committee following such approval, management or the independent auditor will report to the audit committee regarding each service actually provided to us pursuant to such pre-approval.

During our 2019 fiscal year, no services were provided to us by Ernst & Young LLP or any other accounting firm other than in accordance with the pre-approval policies and procedures described above.

Recommendation of the Board of Directors

OUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE RATIFICATION OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM.

PRINCIPAL STOCKHOLDERS

The following table sets forth information, to the extent known by us or ascertainable from public filings, with respect to the beneficial ownership of our common stock as of March 31, 2020 by:

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

Beneficial ownership is determined in accordance with the rules and regulations of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities and include shares of common stock issuable upon the exercise of stock options that are immediately exercisable or exercisable within 60 days after March 31, 2020. Except as otherwise indicated, all of the shares reflected in the table are shares of common stock and all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them, subject to community property laws, where applicable. The information is not necessarily indicative of beneficial ownership for any other purpose.

The percentage ownership calculations for beneficial ownership are based on 17,897,172 shares of common stock outstanding as of March 31, 2020. Except as otherwise indicated in the table below, addresses of named beneficial owners are in care of Catabasis Pharmaceuticals, Inc., 100 High Street, Suite 2800, Boston, MA 02110.

In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed outstanding shares of common stock subject to options held by that person that are currently exercisable or exercisable within 60 days after March 31, 2020. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

<u>Name of Beneficial Owner</u>	<u>Number of Shares Beneficially Owned</u>	<u>Percentage of Shares Beneficially Owned</u>
<i>5% Stockholders</i>		
Affiliates of Federated Investment Management Company(1)	2,122,800	11.9%
Affiliates of Altium Capital Management, LP(2)	925,000	5.2%
Affiliates of Corriente Advisors, LLC(3)	804,584	4.5%
<i>NEOs and Directors</i>		
Jill C. Milne, Ph.D.(4)	159,835	*
Joanne M. Donovan, Ph.D., M.D.(5)	60,902	*
Andrew Nichols, Ph.D.(6)	53,078	*
Burt Adelman, M.D.(7)	3,350	*
Kenneth Bate(8)	4,797	*
Michael D. Kishbauch(9)	3,350	*
Gregg LaPointe(10)	5,000	*
Joanne Beck(11)	5,000	*
Hugh Cole	—	*
All current executive officers and directors as a group (11 persons)(12)	313,842	1.7%

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

- (1) Consists of 2,122,800 shares of common stock beneficially owned by registered investment companies and separate accounts advised by subsidiaries of Federated that have been delegated the power to direct investment and power to vote the securities by the registered investment companies' board of trustees or directors and by the separate accounts' principals. All of the voting securities of Federated are held in the Voting Shares Irrevocable Trust ("Trust"), the trustees of which are Thomas R. Donahue, Rhodora J. Donahue and J. Christopher Donahue (collectively, the "Trustees"). Federated and the Trust each reported sole voting and dispositive power, and the Trustees reported shared voting and dispositive power, with respect to the shares of common stock owned by the registered investment companies and separate accounts advised by subsidiaries of Federated, however they expressly disclaimed that they were the beneficial owners of such shares. The address for each of the foregoing persons and entities is 1001 Liberty Avenue, Pittsburgh, PA 15222-3779. The foregoing information and the information in the table above is based on a Schedule 13G filed with the SEC on February 14, 2020 that reported beneficial ownership as of December 31, 2019. In connection with the Company's January 2020 Financing, Federated acquired an additional 925,000 shares of common stock, which are not noted in the table above.
- (2) Consists of 925,000 shares of common stock with respect to which each of Altium Capital Management, LP (the "Partnership"), Altium Growth Fund, LP (the "Fund"), Altium Growth GP, LLC (the "General Partner"). Each of the Partnership, Fund and General Partner (each, a "Reporting Person") beneficially own warrants exercisable for up to an additional 250,000 shares of common stock. The warrants are subject to a limitation on exercise that does not permit the exercise of such warrants to the extent that the Reporting Persons would beneficially own after any such exercise more than 4.99% of the outstanding shares of common stock, which limitation would limit the exercisability of such warrants as of the date of such report and, as such, the shares potentially issuable upon exercise of the warrants have not been included in the table above. The Partnership is the investment adviser of, and may be deemed to beneficially own securities owned by, the Fund. The General Partner is the general partner of, and may be deemed to beneficially own securities owned by, the Fund. Jacob Gottlieb serves as the Chief Executive Officer of the Fund and Managing Member of the General Partner. The address for each of the foregoing persons and entities is 551 Fifth Ave, FL 19, New York, NY, 10176. The foregoing information and the information in the table above is based on a Schedule 13G filed with the SEC on February 10, 2020 that reported beneficial ownership as of January 30, 2020.
- (3) Consists of 804,584 shares of common stock directly beneficially owned by Corriente Master Fund II, LP ("Corriente Master Fund II"), which includes 187,500 shares of common stock issuable upon exercise of warrants. Corriente Advisors acts as an investment adviser to, and manages investment and trading accounts of, other persons, including Corriente Master Fund II. Corriente Advisors may be deemed, through investment advisory contracts or otherwise, to beneficially own securities held by other persons, including Corriente Master Fund II. Mark L. Hart III is the Chairman and Chief Executive Officer of Corriente Advisors and may be deemed to beneficially own securities owned by Corriente Master Fund II. The address for each of the foregoing persons and entities is 1401 Foch St., Suite 100, Fort Worth, TX 76107. The foregoing information and the information in the table above is based on a Schedule 13G filed with the SEC on February 10, 2020 that reported beneficial ownership as of December 31, 2019. In connection with the Company's January 2020 Financing, an entity affiliated with Corriente Advisors acquired 235,000 shares of common stock, which are not noted in the table above.
- (4) Includes 133,573 shares of common stock issuable upon the exercise of options exercisable within 60 days after March 31, 2020.
- (5) Includes 60,862 shares of common stock issuable upon the exercise of options exercisable within 60 days after March 31, 2020.
- (6) Consists of 53,078 shares of common stock issuable upon the exercise of options exercisable within 60 days after March 31, 2020.
- (7) Consists of 3,350 shares of common stock issuable upon the exercise of options exercisable within 60 days after March 31, 2020.

- (8) Consists of 4,797 shares of common stock issuable upon the exercise of options exercisable within 60 days after March 31, 2020.
- (9) Consists of 3,350 shares of common stock issuable upon the exercise of options exercisable within 60 days after March 31, 2020.
- (10) Consists of 5,000 shares of common stock issuable upon the exercise of options exercisable within 60 days after March 31, 2020.
- (11) Consists of 5,000 shares of common stock issuable upon the exercise of options exercisable within 60 days after March 31, 2020.
- (12) Includes 287,540 shares of common stock issuable upon the exercise of options exercisable within 60 days after March 31, 2020.

REPORT OF THE AUDIT COMMITTEE

The audit committee is appointed by the Board of Directors to assist the Board of Directors in fulfilling its oversight responsibilities with respect to (1) the integrity of our financial statements and financial reporting process and systems of internal controls regarding finance, accounting, and compliance with legal and regulatory requirements, (2) the qualifications, independence, and performance of our independent registered public accounting firm, (3) the performance of our internal audit function, if any, and (4) other matters as set forth in the charter of the audit committee approved by the Board of Directors.

Management is responsible for the preparation of the Catabasis financial statements and the financial reporting process, including its system of internal control over financial reporting and its disclosure controls and procedures. The independent registered public accounting firm is responsible for performing an audit of the Catabasis financial statements in accordance with the standards of the Public Company Accounting Oversight Board, or PCAOB, and issuing a report thereon. The audit committee's responsibility is to monitor and oversee these processes.

In connection with these responsibilities, the audit committee reviewed and discussed with management and the independent registered public accounting firm the audited consolidated financial statements of Catabasis for the fiscal year ended December 31, 2019. The audit committee also discussed with the independent registered public accounting firm the matters required to be discussed by the applicable requirements of the PCAOB and the Securities and Exchange Commission. In addition, the audit committee received written communications from the independent registered public accounting firm confirming its independence as required by the applicable requirements of the PCAOB and has discussed with the independent registered public accounting firm its independence.

Based on the reviews and discussions referred to above, the audit committee recommended to the Board of Directors that the audited consolidated financial statements of Catabasis be included in its Annual Report on Form 10-K for the fiscal year ended December 31, 2019, that was filed with the SEC.

THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS
OF CATABASIS
PHARMACEUTICALS, INC.

Gregg Lapointe, Chairman
Kenneth Bate
Hugh M. Cole

HOUSEHOLDING

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of our documents, including the annual report to stockholders and proxy statement, may have been made available to multiple stockholders in your household. We will promptly deliver a separate copy of either document to you upon written or oral request to Catabasis Pharmaceuticals, Inc., 100 High Street, 28th Floor, Boston, MA 02110, Attention: Corporate Secretary, or telephone: (617) 349-1971. If you want to receive separate copies of the proxy statement or annual report to stockholders in the future, or if you are receiving multiple copies and would like to receive only one copy per household, you should contact your bank, broker or other nominee record holder, or you may contact us at the above address and phone number.

STOCKHOLDER PROPOSALS

A stockholder who would like to have a proposal, including director nominations, considered for inclusion in our 2021 proxy statement must submit the proposal in accordance with the procedures outlined in Rule 14a-8 of the Exchange Act so that it is received by us no later than December 29, 2020, which is 120 days prior to the first anniversary of the mailing date of this proxy statement. However, if the date of the 2021 annual meeting of stockholders is changed by more than 30 days from the date of this year's meeting, then the deadline is a reasonable time before we begin to print and send our proxy statement for the 2021 annual meeting of stockholders. SEC rules set standards for eligibility and specify the types of stockholder proposals that may be excluded from a proxy statement.

If a stockholder wishes to propose a nomination of persons for election to our Board of Directors or present a proposal at an annual meeting but does not wish to have the proposal considered for inclusion in our proxy statement and proxy card, our amended and restated bylaws establish an advance notice procedure for such nominations and proposals. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the Board of Directors or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely notice in proper form to our corporate secretary of the stockholder's intention to bring such business before the meeting.

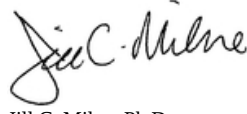
The required notice must be in writing and received by our corporate secretary at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary of the preceding year's annual meeting. However, in the event that the date of the annual meeting is advanced by more than 30 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a stockholder's notice must be so received no earlier than the 120th day prior to such annual meeting and not later than the close of business on the later of (A) the 90th day prior to such annual meeting and (B) the tenth day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever first occurs. For stockholder proposals to be brought before the 2021 annual meeting of stockholders, the required notice must be received by our corporate secretary at our principal executive offices no earlier than February 11, 2021 and no later than March 13, 2021.

Stockholder proposals should be addressed to Catabasis Pharmaceuticals, Inc., Attention: Corporate Secretary, 100 High Street, 28th Floor, Boston, MA 02110.

OTHER MATTERS

Our Board of Directors does not know of any other matters to be brought before the Annual Meeting. If any other matters not mentioned in this proxy statement are properly brought before the meeting, the individuals named in the proxy made available to stockholders intend to use their discretionary voting authority under the proxy to vote the proxy in accordance with their best judgment on those matters.

By Order of the Board of Directors

A handwritten signature in black ink that reads "Jill C. Milne". The signature is written in a cursive style with a large initial "J" and "M".

Jill C. Milne, Ph.D.
President and Chief Executive Officer

CATABASIS PHARMACEUTICALS, INC.

AMENDED AND RESTATED

2015 STOCK INCENTIVE PLAN1. Purpose

The purpose of this 2015 Stock Incentive Plan (the "**Plan**") of Catabasis Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to better align the interests of such persons with those of the Company's stockholders. Except where the context otherwise requires, the term "**Company**" shall include any of the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Internal Revenue Code of 1986, as amended, and any regulations thereunder (the "**Code**") and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the "**Board**").

2. Eligibility

All of the Company's employees, officers and directors, as well as consultants and advisors to the Company (as such terms are defined and interpreted for purposes of Form S-8 under the Securities Act of 1933, as amended (the "**Securities Act**"), or any successor form) are eligible to be granted Awards under the Plan. Each person who is granted an Award under the Plan is deemed a "**Participant**." "**Award**" means Options (as defined in Section 5), SARs (as defined in Section 6), Restricted Stock (as defined in Section 7), Restricted Stock Units (as defined in Section 7) and Other Stock-Based Awards (as defined in Section 8).

3. Administration and Delegation

(a) Administration by Board of Directors. The Plan will be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may construe and interpret the terms of the Plan and any Award agreements entered into under the Plan. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board's sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award.

(b) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a "**Committee**"). All references in the Plan to the "**Board**" shall mean the Board or a Committee of the Board or the officers referred to in Section 3(c) to the extent that the Board's powers or authority under the Plan have been delegated to such Committee or officers.

(c) Delegation to Officers. To the extent permitted by applicable law, the Board may delegate to one or more officers of the Company the power to grant Options and other Awards that constitute rights under Delaware law (subject to any limitations under the Plan) to employees or officers of the Company and to exercise such other powers under the Plan as the Board may determine, *provided* that the Board shall fix the terms of such Awards to be granted by such officers (including the exercise price of such Awards, which may include a formula by which the exercise price will be determined) and the maximum number of shares subject to such Awards that the officers may grant; *provided further*,

however, that no officer shall be authorized to grant such Awards to any "executive officer" of the Company (as defined by Rule 3b-7 under the Securities Exchange Act of 1934, as amended (the " **Exchange Act** ")) or to any "officer" of the Company (as defined by Rule 16a-1 under the Exchange Act). The Board may not delegate authority under this Section 3(c) to grant Restricted Stock, unless Delaware law then permits such delegation.

4. Stock Available for Awards

(a) Number of Shares; Share Counting.

(1) Authorized Number of Shares. Subject to adjustment under Section 9, Awards may be made under the Plan (any or all of which Awards may be in the form of Incentive Stock Options, as defined in Section 5(b)) for up to such number of shares of common stock, \$0.001 par value per share, of the Company (the " **Common Stock** ") as is equal to the sum of:

(A) ~~11,879,330~~ 3,187,933 shares of Common Stock; plus

~~(B)~~ such additional number of shares of Common Stock (up to ~~1,504,652~~ 150,465 shares) as is equal to the sum of (x) ~~25,942~~ the 2,594 shares of Common Stock reserved for issuance under the Company's 2008 Equity Incentive Plan (the " **Existing Plan** ") that remained available for grant under the Existing Plan immediately prior to the closing of the Company's initial public offering and (y) the number of shares of Common Stock subject to awards granted under the Existing Plan which awards expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by the Company at their original issuance price pursuant to a contractual repurchase right (subject, however, in the case of Incentive Stock Options to any limitations of the Code).

Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

(2) Share Counting. For purposes of counting the number of shares available for the grant of Awards under the Plan:

(A) all shares of Common Stock covered by SARs shall be counted against the number of shares available for the grant of Awards under the Plan; *provided, however* , that (i) SARs that may be settled only in cash shall not be so counted and (ii) if the Company grants an SAR in tandem with an Option for the same number of shares of Common Stock and provides that only one such Award may be exercised (a " **Tandem SAR** "), only the shares covered by the Option, and not the shares covered by the Tandem SAR, shall be so counted, and the expiration of one in connection with the other's exercise will not restore shares to the Plan;

(B) if any Award (i) expires or is terminated, surrendered or canceled without having been fully exercised or is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at the original issuance price pursuant to a contractual repurchase right) or (ii) results in any Common Stock not being issued, the unused Common Stock covered by such Award shall again be available for the grant of Awards; *provided, however* , that (1) in the case of Incentive Stock Options, the foregoing shall be subject to any limitations under the Code, (2) in the case of the exercise of an SAR, the number of shares counted against the shares available under the Plan shall be the full number of shares subject to the SAR multiplied by the percentage of the SAR actually exercised, regardless of the number of shares actually used to settle such SAR upon exercise and (3) the shares covered by a Tandem SAR shall not again become available for grant upon the expiration or termination of such Tandem SAR; ~~and~~

~~(C)~~ shares of Common Stock delivered (by actual delivery, attestation, or net exercise) to the Company by a Participant to (i) purchase shares of Common Stock upon the exercise of an Award or (ii) satisfy tax withholding obligations (including shares retained from the Award creating the tax obligation) shall not be added back to the number of shares available for the future grant of Awards ~~;~~ and

~~(D)~~ shares of Common Stock repurchased by the Company on the open market using the proceeds from the exercise of an Award shall not increase the number of shares available for future grant of Awards.

(b) Substitute Awards. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Awards in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute Awards may be granted on such terms as the Board deems appropriate in the circumstances, notwithstanding any limitations on Awards contained in the Plan. Substitute Awards shall not count against the overall share limit set forth in Section 4(a)(1), except as may be required by reason of Section 422 and related provisions of the Code.

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an " **Option** ") and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable.

(b) Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an " **Incentive Stock Option** ") shall only be granted to employees of Catabasis Pharmaceuticals, Inc., any of Catabasis Pharmaceuticals, Inc.'s present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Code, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. An Option that is not intended to be an Incentive Stock Option shall be designated a " **Nonstatutory Stock Option** ." The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock Option or if the Company converts an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify the exercise price in the applicable Option agreement. The exercise price shall be not less than 100% of the fair market value per share of Common Stock as determined by (or in a manner approved by) the Board (" **Fair Market Value** ") on the date the Option is granted; *provided* that if the Board approves the grant of an Option with an exercise price to be determined on a future date, the exercise price shall be not less than 100% of the Fair Market Value on such future date.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement; *provided, however* , that no Option will be granted with a term in excess of 10 years.

(e) Exercise of Options. Options may be exercised by delivery to the Company of a notice of exercise in a form (which may be electronic) approved by the Company, together with payment in full (in the manner specified in Section 5(f)) of the exercise price for the number of shares for which the Option is exercised. Shares of Common Stock subject to the Option will be delivered by the Company as soon as practicable following exercise.

(f) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

(1) in cash or by check, payable to the order of the Company;

(2) except as may otherwise be provided in the applicable Option agreement or approved by the Board, in its sole discretion, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) to the extent provided for in the applicable Option agreement or approved by the Board, in its sole discretion, by delivery (either by actual delivery or attestation) of shares of Common Stock owned by the Participant valued at their Fair Market Value, provided (i) such method of payment is then permitted under applicable law, (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent provided for in the applicable Nonstatutory Stock Option agreement or approved by the Board in its sole discretion, by delivery of a notice of "net exercise" to the Company, as a result of which the Participant would receive (i) the number of shares underlying the portion of the Option being exercised, less (ii) such number of shares as is equal to (A) the aggregate exercise price for the portion of the Option being exercised divided by (B) the Fair Market Value on the date of exercise;

(5) to the extent permitted by applicable law and provided for in the applicable Option agreement or approved by the Board, in its sole discretion, by payment of such other lawful consideration as the Board may determine; or

(6) by any combination of the above permitted forms of payment.

(g) Limitation on Repricing. Unless such action is approved by the Company's stockholders, the Company may not (except as provided for under Section 9): (1) amend any outstanding Option granted under the Plan to provide an exercise price per share that is lower than the then-current exercise price per share of such outstanding Option, (2) cancel any outstanding option (whether or not granted under the Plan) and grant in substitution therefor new Awards under the Plan (other than Awards granted pursuant to Section 4(b)) covering the same or a different number of shares of Common Stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled option, (3) cancel in exchange for a cash payment any outstanding Option with an exercise price per share above the then-current Fair Market Value, or (4) take any other action under the Plan that constitutes a "repricing" within the meaning of the rules of the NASDAQ Stock Market ("*NASDAQ*").

(h) No Dividend Equivalents. No Option shall provide for the payment or accrual of dividend equivalents.

6. Stock Appreciation Rights

(a) General. The Board may grant Awards consisting of stock appreciation rights ("*SARs*") entitling the holder, upon exercise, to receive an amount of Common Stock or cash or a combination thereof (such form to be determined by the Board) determined by reference to appreciation, from and after the date of grant, in the Fair Market Value of a share of Common Stock over the measurement price established pursuant to Section 6(b). The date as of which such appreciation is determined shall be the exercise date.

(b) Measurement Price. The Board shall establish the measurement price of each SAR and specify it in the applicable SAR agreement. The measurement price shall not be less than 100% of the Fair Market Value on the date the SAR is granted; *provided* that if the Board approves the grant of an

SAR effective as of a future date, the measurement price shall be not less than 100% of the Fair Market Value on such future date.

(c) Duration of SARs. Each SAR shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable SAR agreement; *provided, however*, that no SAR will be granted with a term in excess of 10 years.

(d) Exercise of SARs. SARs may be exercised by delivery to the Company of a notice of exercise in a form (which may be electronic) approved by the Company, together with any other documents required by the Board.

(e) Limitation on Repricing. Unless such action is approved by the Company's stockholders, the Company may not (except as provided for under Section 9): (1) amend any outstanding SAR granted under the Plan to provide a measurement price per share that is lower than the then-current measurement price per share of such outstanding SAR, (2) cancel any outstanding SAR (whether or not granted under the Plan) and grant in substitution therefor new Awards under the Plan (other than Awards granted pursuant to Section 4(b)) covering the same or a different number of shares of Common Stock and having an exercise or measurement price per share lower than the then-current measurement price per share of the cancelled SAR, (3) cancel in exchange for a cash payment any outstanding SAR with a measurement price per share above the then-current Fair Market Value, or (4) take any other action under the Plan that constitutes a "repricing" within the meaning of the rules of NASDAQ.

(f) No Dividend Equivalents. No SAR shall provide for the payment or accrual of dividend equivalents.

7. Restricted Stock; Restricted Stock Units

(a) General. The Board may grant Awards entitling recipients to acquire shares of Common Stock ("**Restricted Stock**"), subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award. The Board may also grant Awards entitling the recipient to receive shares of Common Stock or cash to be delivered at the time such Award vests ("**Restricted Stock Units**") (Restricted Stock and Restricted Stock Units are each referred to herein as a "**Restricted Stock Award**").

(b) Terms and Conditions for All Restricted Stock Awards. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for vesting and repurchase (or forfeiture) and the issue price, if any.

(c) Additional Provisions Relating to Restricted Stock

(1) Dividends. Any dividends (whether paid in cash, stock or property) declared and paid by the Company with respect to shares of Restricted Stock ("**Accrued Dividends**") shall be paid to the Participant only if and when such shares become free from the restrictions on transferability and forfeitability that apply to such shares. Each payment of Accrued Dividends will be made no later than the end of the calendar year in which the dividends are paid to stockholders of that class of stock or, if later, the 15th day of the third month following the lapsing of the restrictions on transferability and the forfeitability provisions applicable to the underlying shares of Restricted Stock.

(2) Stock Certificates. The Company may require that any stock certificates issued in respect of shares of Restricted Stock, as well as dividends or distributions paid on such Restricted Stock, shall be deposited in escrow by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods,

the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to his or her Designated Beneficiary. " **Designated Beneficiary** " means (i) the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death or (ii) in the absence of an effective designation by a Participant, the Participant's estate.

(d) Additional Provisions Relating to Restricted Stock Units.

(1) Settlement. Upon the vesting of and/or lapsing of any other restrictions (i.e., settlement) with respect to each Restricted Stock Unit, the Participant shall be entitled to receive from the Company such number of shares of Common Stock or (if so provided in the applicable Award agreement) an amount of cash equal to the Fair Market Value of such number of shares of Common Stock as are set forth in the applicable Restricted Stock Unit agreement. The Board may, in its discretion, provide that settlement of Restricted Stock Units shall be deferred, on a mandatory basis or at the election of the Participant in a manner that complies with Section 409A of the Code.

(2) Voting Rights. A Participant shall have no voting rights with respect to any Restricted Stock Units.

(3) Dividend Equivalents. The Award agreement for Restricted Stock Units may provide Participants with the right to receive an amount equal to any dividends or other distributions declared and paid on an equal number of outstanding shares of Common Stock (" **Dividend Equivalents** "). Dividend Equivalents may be settled in cash and/or shares of Common Stock and shall be subject to the same restrictions on transfer and forfeitability as, and the payment of such Dividend Equivalents shall be subject to the vesting of, the Restricted Stock Units with respect to which paid.

8. Other Stock-Based Awards

(a) General. Other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property, may be granted hereunder to Participants (" **Other Stock-Based-Awards** "). Such Other Stock-Based Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock-Based Awards may be paid in shares of Common Stock or cash, as the Board shall determine. Any Dividend Equivalents awarded with respect to Other Stock-Based Awards shall be subject to the same restrictions on transfer and forfeitability as, and the payment of such Dividend Equivalents shall be subject to the vesting of, the Award with respect to which granted.

(b) Terms and Conditions. Subject to the provisions of the Plan, the Board shall determine the terms and conditions of each Other Stock-Based Award, including any purchase price applicable thereto.

9. Adjustments for Changes in Common Stock and Certain Other Events

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under the Plan, (ii) the share counting rules set forth in Section 4(a), (iii) the number and class of securities and exercise price per share of each outstanding Option, (iv) the share and per-share provisions and the measurement price of each outstanding SAR, (v) the number of shares subject to and the repurchase price per share subject to each outstanding Restricted Stock Award and (vi) the share and per-share-related provisions

and the purchase price, if any, of each outstanding Other Stock-Based Award, shall be equitably adjusted by the Company (or substituted Awards may be made, if applicable) in the manner determined by the Board. Without limiting the generality of the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to an outstanding Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(b) Reorganization Events.

(1) Definition. A "**Reorganization Event**" shall mean: (a) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (b) any transfer or disposition of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange or other transaction or (c) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock.

(A) In connection with a Reorganization Event, the Board may take any one or more of the following actions as to all or any (or any portion of) outstanding Awards other than Restricted Stock on such terms as the Board determines (except to the extent specifically provided otherwise in an applicable Award agreement or another agreement between the Company and the Participant): (i) provide that such Awards shall be assumed, or substantially equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (ii) upon written notice to a Participant, provide that all of the Participant's unexercised Awards will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant (to the extent then exercisable) within a specified period following the date of such notice, (iii) provide that outstanding Awards shall become exercisable, realizable, or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Reorganization Event, (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Reorganization Event (the "**Acquisition Price**"), make or provide for a cash payment to Participants with respect to each Award held by a Participant equal to (A) the number of shares of Common Stock subject to the vested portion of the Award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such Reorganization Event) multiplied by (B) the excess, if any, of (I) the Acquisition Price over (II) the exercise, measurement or purchase price of such Award and any applicable tax withholdings, in exchange for the termination of such Award, (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings) and (vi) any combination of the foregoing. In taking any of the actions permitted under this Section 9(b)(2), the Board shall not be obligated by the Plan to treat all Awards, all Awards held by a Participant, or all Awards of the same type, identically.

(B) Notwithstanding the terms of Section 9(b)(2)(A), in the case of outstanding Restricted Stock Units that are subject to Section 409A of the Code: (i) if the applicable Restricted Stock Unit agreement provides that the Restricted Stock Units shall be settled upon a "change in control event" within the meaning of Treasury Regulation

Section 1.409A-3(i)(5)(i), and the Reorganization Event constitutes such a "change in control event", then no assumption or substitution shall be permitted pursuant to Section 9(b)(2)(A)(i) and the Restricted Stock Units shall instead be settled in accordance with the terms of the applicable Restricted Stock Unit agreement; and (ii) the Board may only undertake the actions set forth in clauses (iii), (iv) or (v) of Section 9(b)(2)(A) if the Reorganization Event constitutes a "change in control event" as defined under Treasury Regulation Section 1.409A-3(i)(5)(i) and such action is permitted or required by Section 409A of the Code; if the Reorganization Event is not a "change in control event" as so defined or such action is not permitted or required by Section 409A of the Code, and the acquiring or succeeding corporation does not assume or substitute the Restricted Stock Units pursuant to clause (i) of Section 9(b)(2)(A), then the unvested Restricted Stock Units shall terminate immediately prior to the consummation of the Reorganization Event without any payment in exchange therefor.

(C) For purposes of Section 9(b)(2)(A)(i), an Award (other than Restricted Stock) shall be considered assumed if, following consummation of the Reorganization Event, such Award confers the right to purchase or receive pursuant to the terms of such Award, for each share of Common Stock subject to the Award immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); *provided, however*, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise or settlement of the Award to consist solely of such number of shares of common stock of the acquiring or succeeding corporation (or an affiliate thereof) that the Board determined to be equivalent in value (as of the date of such determination or another date specified by the Board) to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event.

(3) Consequences of a Reorganization Event on Restricted Stock. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company with respect to outstanding Restricted Stock shall inure to the benefit of the Company's successor and shall, unless the Board determines otherwise, apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Reorganization Event in the same manner and to the same extent as they applied to such Restricted Stock; *provided, however*, that the Board may provide for termination or deemed satisfaction of such repurchase or other rights under the instrument evidencing any Restricted Stock or any other agreement between a Participant and the Company, either initially or by amendment. Upon the occurrence of a Reorganization Event involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock then outstanding shall automatically be deemed terminated or satisfied.

10. General Provisions Applicable to Awards

(a) Transferability of Awards. Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an Incentive Stock Option, pursuant to a qualified domestic relations order, and, during the life of the Participant,

shall be exercisable only by the Participant; *provided, however*, that the Board may permit or provide in an Award for the gratuitous transfer of the Award by the Participant to or for the benefit of any immediate family member, family trust or other entity established for the benefit of the Participant and/or an immediate family member thereof if the Company would be eligible to use a Form S-8 under the Securities Act for the registration of the sale of the Common Stock subject to such Award to such proposed transferee; *provided further*, that the Company shall not be required to recognize any such permitted transfer until such time as such permitted transferee shall, as a condition to such transfer, deliver to the Company a written instrument in form and substance satisfactory to the Company confirming that such transferee shall be bound by all of the terms and conditions of the Award. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees. For the avoidance of doubt, nothing contained in this Section 10(a) shall be deemed to restrict a transfer to the Company.

(b) Documentation. Each Award shall be evidenced in such form (written, electronic or otherwise) as the Board shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, termination or other cessation of employment, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. The Participant must satisfy all applicable federal, state, and local or other income and employment tax withholding obligations before the Company will deliver stock certificates or otherwise recognize ownership of Common Stock under an Award. The Company may decide to satisfy the withholding obligations through additional withholding on salary or wages. If the Company elects not to or cannot withhold from other compensation, the Participant must pay the Company the full amount, if any, required for withholding or have a broker tender to the Company cash equal to the withholding obligations. Payment of withholding obligations is due before the Company will issue any shares on exercise, vesting or release from forfeiture of an Award or at the same time as payment of the exercise or purchase price, unless the Company determines otherwise. If provided for in an Award or approved by the Board in its sole discretion, a Participant may satisfy such tax obligations in whole or in part by delivery (either by actual delivery or attestation) of shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value; *provided, however*, except as otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). Shares used to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements.

(f) Amendment of Award. Except as otherwise provided in Sections 5(g) and 6(e) with respect to repricings and Section 11(d) with respect to actions requiring stockholder approval, the Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonstatutory Stock Option. The Participant's consent to such action shall be required unless (i) the Board determines that the action, taking into account any related

action, does not materially and adversely affect the Participant's rights under the Plan or (ii) the change is permitted under Section 9.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously issued or delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and regulations and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(h) Acceleration. The Board may at any time provide that any Award shall become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

11. Miscellaneous

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award by virtue of the adoption of the Plan, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares.

(c) Effective Date and Term of Plan. The Plan shall become effective immediately prior to the effectiveness of the Company's initial public offering (the "**Effective Date**"). No Awards shall be granted under the Plan after the expiration of 10 years from the Effective Date, but Awards previously granted may extend beyond that date.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time provided that (i) to the extent required by Section 162(m) of the Code, no Award granted to a Participant that is intended to comply with Section 162(m) of the Code after the date of such amendment shall become exercisable, realizable or vested, as applicable to such Award, unless and until the Company's stockholders approve such amendment in the manner required by Section 162(m) of the Code; and (ii) no amendment that would require stockholder approval under the rules of NASDAQ may be made effective unless and until the Company's stockholders approve such amendment;. In addition, if at any time the approval of the Company's stockholders is required as to any other modification or amendment under Section 422 of the Code or any successor provision with respect to Incentive Stock Options, the Board may not effect such modification or amendment without such approval. Unless otherwise specified in the amendment, any amendment to the Plan adopted in accordance with this Section 11(d) shall apply to, and be binding on the holders of, all Awards outstanding under the Plan at the time the amendment is adopted, provided the Board determines that such amendment, taking into account any related action, does not materially and adversely affect the rights of Participants under the Plan. No Award shall be made that is conditioned upon stockholder approval of any amendment to the Plan unless the Award provides that (i) it will terminate or be forfeited if stockholder approval of such amendment is not obtained within no more than 12 months from the date of grant and (2) it may not be exercised or settled (or otherwise result in the issuance of Common Stock) prior to such stockholder approval.

(e) Authorization of Sub-Plans (including for Grants to non-U.S. Employees). The Board may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable securities, tax or other laws of various jurisdictions. The Board shall establish such sub-plans by adopting supplements to the Plan containing (i) such limitations on the Board's discretion under the Plan as the Board deems necessary or desirable or (ii) such additional terms and conditions not otherwise inconsistent with the Plan as the Board shall deem necessary or desirable. All supplements adopted by the Board shall be deemed to be part of the Plan, but each supplement shall apply only to Participants within the affected jurisdiction and the Company shall not be required to provide copies of any supplement to Participants in any jurisdiction which is not the subject of such supplement.

(f) Compliance with Section 409A of the Code. Except as provided in individual Award agreements initially or by amendment, if and to the extent (i) any portion of any payment, compensation or other benefit provided to a Participant pursuant to the Plan in connection with his or her employment termination constitutes "nonqualified deferred compensation" within the meaning of Section 409A of the Code and (ii) the Participant is a specified employee as defined in Section 409A(a)(2)(B)(i) of the Code, in each case as determined by the Company in accordance with its procedures, by which determinations the Participant (through accepting the Award) agrees that he or she is bound, such portion of the payment, compensation or other benefit shall not be paid before the day that is six months plus one day after the date of "separation from service" (as determined under Section 409A of the Code) (the "**New Payment Date**"), except as Section 409A of the Code may then permit. The aggregate of any payments that otherwise would have been paid to the Participant during the period between the date of separation from service and the New Payment Date shall be paid to the Participant in a lump sum on such New Payment Date, and any remaining payments will be paid on their original schedule.

The Company makes no representations or warranty and shall have no liability to the Participant or any other person if any provisions of or payments, compensation or other benefits under the Plan are determined to constitute nonqualified deferred compensation subject to Section 409A of the Code but do not to satisfy the conditions of that section.

(g) Limitations on Liability. Notwithstanding any other provisions of the Plan, no individual acting as a director, officer, employee or agent of the Company will be liable to any Participant, former Participant, spouse, beneficiary, or any other person for any claim, loss, liability, or expense incurred in connection with the Plan, nor will such individual be personally liable with respect to the Plan because of any contract or other instrument he or she executes in his or her capacity as a director, officer, employee or agent of the Company. The Company will indemnify and hold harmless each director, officer, employee or agent of the Company to whom any duty or power relating to the administration or interpretation of the Plan has been or will be delegated, against any cost or expense (including attorneys' fees) or liability (including any sum paid in settlement of a claim with the Board's approval) arising out of any act or omission to act concerning the Plan unless arising out of such person's own fraud or bad faith.

~~(h)~~ Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than the State of Delaware.

CATABASIS PHARMACEUTICALS, INC.
 100 HIGH STREET, 28th FLOOR
 BOSTON, MA 02110

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information. Vote by 11:59 P.M. ET on June 10, 2020. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions. Vote by 11:59 P.M. ET on June 10, 2020. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

KEEP THIS PORTION FOR YOUR RECORDS
 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

<p>The Board of Directors recommends you vote FOR the following:</p> <p>1. Election of Directors</p> <p>Nominees</p> <p>01) Kenneth Bate 02) Joanne T. Beck, Ph.D. 03) Hugh Cole</p>	<p>For All</p> <p>Withhold All</p> <p>For All Except</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.</p> <p>_____</p>
<p>The Board of Directors recommends you vote FOR proposals 2 and 3:</p>			
<p>2. To approve an amendment and restatement of our Amended and Restated 2015 Stock Incentive Plan to increase the number of shares available for issuance thereunder by 2,000,000 shares and to provide for certain other amendments.</p> <p>3. Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2020.</p>	<p>For</p> <p>Against</p> <p>Abstain</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	
<p>NOTE: The shares represented by this proxy when properly executed will be voted in the manner directed herein by the undersigned stockholder(s). If no direction is made, this proxy will be voted FOR the election of the nominees listed in item 1 and FOR items 2 and 3. If any other matters properly come before the meeting, the persons named in this proxy will vote in their discretion.</p>			
<p>Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.</p>			
<div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px;"></div> <p>Signature [PLEASE SIGN WITHIN BOX] Date</p>	<div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px;"></div> <p>Signature (Joint Owners) Date</p>		

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice and Proxy Statement and Annual Report are available at www.proxyvote.com

**THIS PROXY IS SOLICITED ON BEHALF OF
THE BOARD OF DIRECTORS OF CATABASIS
PHARMACEUTICALS, INC.
June 11, 2020 at 10:00 AM ET**

The stockholder(s) hereby appoint(s) Jill C. Milne, Ph. D., as proxy, with the power to appoint her substitute, and hereby authorize(s) her to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common Stock of Catabasis Pharmaceuticals, Inc. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders to be held at 10:00 a.m., Eastern Time, on June 11, 2020, at 100 High Street, Boston, MA 02110, and any adjournment or postponement thereof.

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED BY THE STOCKHOLDER(S). IF NO SUCH DIRECTIONS ARE MADE, THIS PROXY WILL BE VOTED FOR THE ELECTION OF THE NOMINEES LISTED ON THE REVERSE SIDE FOR THE BOARD OF DIRECTORS, AND FOR PROPOSALS 2 AND 3. IN THEIR DISCRETION, THE PROXIES ARE AUTHORIZED TO VOTE UPON SUCH OTHER BUSINESS AS MAY PROPERLY COME BEFORE THE MEETING OR ANY POSTPONEMENT OR ADJOURNMENT THEREOF.

PLEASE MARK, SIGN, DATE AND RETURN THIS PROXY CARD PROMPTLY USING THE ENCLOSED REPLY ENVELOPE.

Continued and to be signed on reverse side