

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.

(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: _____
 - (2) Form, Schedule or Registration Statement No.: _____
 - (3) Filing Party: _____
 - (4) Date Filed: _____
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CATABASIS PHARMACEUTICALS, INC.

**One Kendall Square
Building 1400E, Suite B14202
Cambridge, MA 02139**

NOTICE OF 2018 ANNUAL MEETING OF STOCKHOLDERS

To be held on June 7, 2018

You are cordially invited to attend the 2018 Annual Meeting of Stockholders (the "Annual Meeting") of Catabasis Pharmaceuticals, Inc., which is scheduled to be held on Thursday, June 7, 2018 at 10:00 a.m. Eastern Time, at the offices of WilmerHale located at 60 State Street, Boston, Massachusetts 02109.

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

1. Election of two Class III Directors to our Board of Directors, to serve until the 2021 annual meeting of stockholders;
2. Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2018; and
3. 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 and two 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 12, 2018, 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

Cambridge, Massachusetts
April 26, 2018

**Catabasis Pharmaceuticals, Inc.
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CATABASIS PHARMACEUTICALS, INC.

One Kendall Square
Building 1400E, Suite B14202
Cambridge, MA 02139
617-349-1971

PROXY STATEMENT

**FOR THE 2018 ANNUAL MEETING OF STOCKHOLDERS
to be held on June 7, 2018**

This proxy statement and the proxy card contain information about the 2018 Annual Meeting of Stockholders of Catabasis Pharmaceuticals, Inc. (the "Annual Meeting") to be held on Thursday, June 7, 2018 at 10:00 a.m. Eastern Time, at the offices of WilmerHale located at 60 State Street, Boston, Massachusetts 02109. 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," "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, 2017 and this proxy statement and proxy card are first being made available to stockholders on or about April 26, 2018.

**Important Notice Regarding the Availability of Proxy Materials for
the Annual Meeting of Stockholders to be Held on June 7, 2018:**

**This proxy statement and our 2017 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, 2017, 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: Secretary, One Kendall Square, Building 1400E, Suite B14202, Cambridge, MA 02139. This proxy statement and our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 are also available on the SEC's website at <http://www.sec.gov> and our website at www.catabasis.com.

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 two Class III directors to our Board of Directors, to serve until the 2021 annual meeting of stockholders;
2. Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2018; and
3. 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 III Directors on our Board of Directors for a three-year term; 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, 2018.

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 2017 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 12, 2018 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 12, 2018, there were 29,035,502 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.

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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 6, 2018, and mailed proxy cards must be received by June 6, 2018 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.

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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 ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for 2018 (Proposal No. 2) 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. 2.

Votes Required to Elect Directors 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 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. 2).

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., Stamford, CT 06902 to aid us in the solicitation of proxies for a fee of \$6,500 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 III 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 six. 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 Jill C. Milne and Michael D. Kishbauch, and their term will expire at the annual meeting of stockholders to be held in 2019;
- the Class II directors are Kenneth Bate and Jean George, and their term will expire at the annual meeting of stockholders to be held in 2020; and
- the Class III directors are Michael Ross and Burt Adelman, and their term expires at the Annual Meeting.

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 Michael Ross and Burt Adelman for re-election as Class III directors at the Annual Meeting. Each Class III 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 2021.

If no contrary indication is made, proxies in the accompanying form are to be voted for Dr. Ross and Dr. Adelman 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
2021 Annual Meeting of Stockholders (Class III)**

<u>Name</u>	<u>Age</u>	<u>Present Position with Catabasis Pharmaceuticals, Inc.</u>
Michael Ross, Ph. D.	68	Director, Co-Chairman of the Board of Directors
Burt Adelman, M.D.	66	Director

Michael Ross, Ph.D., has served as a member of our Board of Directors since April 2010, and as Co-Chairman since February 2016. He previously served as our Chairman from October 2010 until February 2016. Since 2002, Dr. Ross has served as a Managing Partner at SV Health Investors (formerly SV Life Sciences Advisers), a venture capital firm that he joined as a venture partner in 2001. Previously, Dr. Ross served as the Chief Executive Officer of CyThera Pharmaceuticals, Carta Proteomics, MetaXen and Arris Pharmaceutical. Earlier in his career, Dr. Ross was employed at Genentech, Inc., serving in several roles, including Vice President of Development and later Vice President of Medicinal and Biomolecular Chemistry. Dr. Ross currently serves on the board of directors of Ophthotech, a biopharmaceutical company, and on the Board of Overseers of the Thayer School of Engineering at Dartmouth College. Dr. Ross received a Ph.D. in chemistry from the California Institute of Technology and completed post doctorate training in molecular biology at Harvard University and received an A.B. from Dartmouth College. We believe that Dr. Ross is qualified to serve on our Board of Directors because of his extensive executive leadership experience and knowledge of the life sciences industry and his service on the board of directors of other life sciences companies.

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. Since 1998, Dr. Adelman has 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.

Recommendation of the Board of Directors

OUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE ELECTION OF MICHAEL ROSS AND BURT ADELMAN.

**Members of the Board of Directors Continuing in Office
Term Expiring at the
2019 Annual Meeting of Stockholders (Class I)**

Name	Age	Present Position with Catabasis Pharmaceuticals, Inc.
Jill C. Milne, Ph.D.	50	President, Chief Executive Officer and Director
Michael D. Kishbauch	69	Director

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 Sirtis 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 Pfunder 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.

Michael D. Kishbauch has served as a member of our Board of Directors since April 2016. Mr. Kishbauch has also served as a director of Progenics Pharmaceuticals, Inc., a biopharmaceutical company, since September 2013 and of Achillion Pharmaceuticals, Inc., a biotechnology company, since July 2004. Mr. Kishbauch previously served as President and Chief Executive Officer of Achillion Pharmaceuticals 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 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.

**Members of the Board of Directors Continuing in Office
Term Expiring at the
2020 Annual Meeting of Stockholders (Class II)**

Name	Age	Present Position with Catabasis Pharmaceuticals, Inc.
Kenneth Bate	67	Director, Co-Chairman of the Board of Directors
Jean George	60	Director

Kenneth Bate has served as a member of our Board of Directors since January 2014, and as Co-Chairman since February 2016. From May 2009 until January 2012, Mr. Bate was the President and Chief Executive Officer of Archemix, a privately held biotechnology company. From January 2007 to April 2009, Mr. Bate was President and Chief Executive Officer of NitroMed, a public pharmaceutical company. From March 2006 until January 2007, Mr. Bate was Chief Operating Officer and Chief Financial Officer of NitroMed. From January 2005 to March 2006, Mr. Bate was employed at JSB-Partners, a banking and advisory services firm for biopharmaceutical and life sciences companies that he co-founded. From 2002 to January 2005, Mr. Bate was head of commercial operations and

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Chief Financial Officer at Millennium Pharmaceuticals. Mr. Bate served as a member of the board of directors of Cubist Pharmaceuticals, a public biopharmaceutical company, from June 2003 to January 2015 and was its non-executive Chair from March 2011 to January 2015. Mr. Bate is a director of five other public biopharmaceutical companies, AVEO Pharmaceuticals, Genocera Biosciences, Epizyme Pharmaceuticals, Vanda Pharmaceuticals and Madrigal Pharmaceuticals. During the last five years, Mr. Bate also served as a director of NitroMed and Coley Pharmaceutical Group. 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.

Jean George has served as a member of our Board of Directors since October 2013. Since February 2002, she has been a Managing Director at Advanced Technology Ventures, a venture capital fund, where she currently serves as the East Coast lead partner for healthcare investments. Since March 2012, Ms. George has served as Managing Director at Lightstone Ventures, a venture capital firm. Ms. George currently serves as a member of the board of directors of the public companies Acceleron Pharma and Calithera Biosciences, and previously served as a member of the board of directors of Portola Pharmaceuticals from 2005 to 2013 and of Zeltiq Aesthetics from 2005 to 2015. Ms. George holds an M.B.A. from Simmons College Graduate School of Management and a B.S. in biology from the University of Maine. Because of Ms. George's extensive investment and financial experience, we believe she is able to add valuable expertise in guiding the strategic direction of our Board of Directors.

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., One Kendall Square, Building 1400E, Suite B14202, Cambridge, MA 02139, 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

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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. Bate, Dr. Ross and Mr. Kishbauch, who comprise our audit committee, and Mr. Kishbauch, Mr. Bate and Ms. George, who comprise our compensation committee, satisfy the independence standards for such committees 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, and to have Co-Chairmen of the Board of Directors. Our Board of Directors is currently co-chaired by Mr. Bate and Dr. Ross, who both possess an in-depth knowledge of the issues, opportunities and challenges we face. We believe they are the persons best positioned to ensure our Board of Directors' time and attention is focused on the most critical matters. We currently separate the roles of Co-Chairmen 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 and Dr. Ross.

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 ten times during 2017. 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 Dr. Ross, Mr. Bate and Mr. Kishbauch. Mr. Bate is the chair of the audit committee. Our Board of Directors has determined that each of Mr. Bate and Mr. Kishbauch 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 five times during 2017. 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 internal auditing staff, 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, Dr. Ross and Mr. Kishbauch 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 Mr. Kishbauch as the chair of the compensation committee, Mr. Bate and Ms. George. 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 five times during 2017. 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;

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- reviewing and making recommendations to our Board of Directors with respect to director compensation;
- reviewing and making recommendations to the Board of Directors relating to management succession planning; 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 Mr. Bate, Mr. Kishbauch and Ms. George 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, 2017. 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, 2017. In evaluating the total compensation of our executive officers, the compensation committee, with the assistance of Radford, established a peer group of 19 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.

The peer group for our executive benchmarking as approved by the compensation committee for 2017 was comprised of the following companies:

Akebia Therapeutics, Inc.	Fate Therapeutics, Inc.	Proteon Therapeutics, Inc.
aTyr Pharma, Inc.	Genocea Biosciences, Inc.	Regulus Therapeutics Inc.
Capricor Therapeutics, Inc.	GlycoMimetics, Inc.	Stemline Therapeutics, Inc.
Cellular Biomedicine Group, Inc.	Immune Design Corp.	Trevena, Inc.
ChemoCentryx, Inc.	Kura Oncology, Inc.	Vital Therapies, Inc.
Concert Pharmaceuticals, Inc.	Matinas BioPharma Holdings, Inc.	
Endocyte, Inc.	Mirati Therapeutics, Inc.	

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, 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 Ms. George and Dr. Ross. Dr. Ross is the chair of the nominating and corporate governance committee. The

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nominating and corporate governance committee met five times during 2017. 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;
- 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 Ms. George and Dr. Ross 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. Ross. Dr. Adelman is the chair of the science and technology committee. The science and technology committee met five times during 2017. 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.

Compensation Committee Interlocks and Insider Participation

During 2017, the members of our compensation committee were Mr. Bate and Dr. Nicholas Galakatos through June 7, 2017, and Mr. Kishbauch, Mr. Bate and Ms. George thereafter, each of whom is an independent director or, in the case of Dr. Galakatos, was an independent director prior to his departure from our Board. None of our executive officers served as a director or a member of a compensation committee (or other committee serving an equivalent function) of any other entity, one of whose executive officers served as a director or member of our compensation committee during the fiscal year ended December 31, 2017.

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.

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

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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 has utilize a third-party search firm to identify board of director candidates in the past and may in the future 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 and do not have a formal policy regarding consideration of such recommendations. However, any recommendations received from stockholders will be evaluated in the same manner that potential nominees suggested by members of our Board of Directors, management or other parties are evaluated. We do not intend to treat stockholder recommendations in any manner different from other recommendations.

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 2019 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 2017 annual meeting of stockholders, except for Dr. Ross and Dr. Galakatos.

Communications with Our Board of Directors

Stockholders seeking to communicate with our Board of Directors should submit their written comments to Catabasis Pharmaceuticals, Inc., One Kendall Square, Building 1400E, Suite B14202, Cambridge, MA 02139, 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—2017 Summary Compensation Table."

In February 2016, our Board of Directors adopted an amended director compensation program, which became effective as of January 1, 2016. Under this 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 Co-Chairmen 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 2018, our Board of Directors adopted an amended non-employee director equity compensation program, effective as of January 1, 2018. 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 28,000 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 14,000 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.

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The following table sets forth information regarding compensation earned by our non-employee directors during 2017. Dr. Galakatos' term as a Class II director expired at our 2017 annual meeting of stockholders in June 2017, and he did not stand for reelection.

Name	Fees Earned or Paid In Cash (S)	Option Awards (S)(I)	Total (S)
Michael Ross, Ph.D.	72,500	5,622	78,122
Nicholas Galakatos, Ph.D.	35,015	—	35,015
Jean George	40,160	5,622	45,783
Kenneth Bate	77,500	5,622	83,122
Burt Adelman, M.D.	45,000	5,622	50,622
Michael Kishbauch	45,318	5,622	50,940

- (1) The amounts included in the "Option Awards" column reflect the aggregate grant date fair value of awards granted during 2017 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 13 to the consolidated financial statements included in our Annual Report on Form 10-K previously filed with the SEC. As of December 31, 2017:
- Dr. Ross held stock options to purchase an aggregate of 24,094 shares of common stock, 13,896 shares of which were vested as of December 31, 2017; 3,698 of the shares are scheduled to vest on June 30, 2018, and 6,500 of the shares are scheduled to vest on June 7, 2018;
 - Ms. George held stock options to purchase an aggregate of 24,094 shares of common stock, 13,896 shares of which were vested as of December 31, 2016; 3,698 of the shares are scheduled to vest on June 30, 2018, and 6,500 of the shares are scheduled to vest on June 7, 2018;
 - Mr. Bate held stock options to purchase an aggregate of 33,977 shares of common stock, 23,573 shares of which were vested as of December 31, 2017; 206 of the shares vested on January 1, 2018; 3,698 shares are scheduled to vest on June 30, 2018; and 6,500 of the shares are scheduled to vest on June 7, 2018;
 - Dr. Adelman held stock options to purchase an aggregate of 19,500 shares of common stock, 4,333 of which were vested as of December 31, 2017; 4,333 of the shares vested on April 5, 2018; 6,500 of the shares are scheduled to vest on June 7, 2018; and 4,334 of the shares are scheduled to vest on April 5, 2019.
 - Mr. Kishbauch held stock options to purchase an aggregate of 19,500 shares of common stock, 4,333 of which were vested as of December 31, 2017; 4,333 of the shares vested on April 5, 2018; 6,500 of the shares are scheduled to vest on June 7, 2018; and 4,334 of the shares are scheduled to vest on April 5, 2019.

EXECUTIVE OFFICERS

The following table sets forth information regarding our executive officers as of April 21, 2018:

Name	Age	Position(s)
Jill C. Milne, Ph. D.	50	President and Chief Executive Officer, Director
Joanne Donovan, M.D., Ph. D.	61	Chief Medical Officer
Andrew Nichols, Ph. D.	57	Chief Scientific Officer
Deirdre A. Cunnane	53	Chief Legal Officer and Treasurer

The biography of Dr. Milne can be found under "Proposal 1—Election of Class III Directors—Members of the Board of Directors Continuing in Office."

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.

Deirdre A. Cunnane has served as our Chief Legal Officer since February 2018 and as our Treasurer since April 2016. Previously, she served as our Senior Vice President and General Counsel from November 2015 to February 2018. Prior to joining Catabasis, Ms. Cunnane served as General Counsel at Advanced Technology Ventures, or ATV, from January 2006 to October 2015, and at Lightstone Ventures, or Lightstone, from its founding in January 2012 until October 2015. Prior to ATV and Lightstone, Ms. Cunnane was an investment officer at BancBoston Ventures and Deputy General Counsel at BancBoston Capital. Ms. Cunnane started her law career with, and later became a Partner in, Goodwin Procter's corporate department. Ms. Cunnane holds a J.D. from Boston College Law School and a B.S. in Finance from the Boston College School of Management.

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 2017 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.

2017 Summary Compensation Table

The following table sets forth information regarding compensation earned in 2017 and 2016 by our NEOs.

Name and Principal Position	Year	Salary (\$)	Bonus \$(1)	Option Awards \$(2)	All Other Compensation \$(3)	Total (\$)
Jill C. Milne, Ph.D.	2017	462,264	—	168,710	1,645	632,619
<i>President and Chief Executive Officer</i>	2016	453,200	163,152	431,230	1,822	1,049,404
Joanne M. Donovan, M.D., Ph.D.	2017	389,621	—	84,355	1,645	475,621
<i>Chief Medical Officer</i>	2016	381,982	130,256	321,806	1,822	835,866
Andrew Nichols, Ph.D.	2017	346,800	—	84,355	1,645	432,800
<i>Chief Scientific Officer</i>	2016	316,750	118,627	238,744	1,822	675,943

- (1) The amounts reported in the "Bonus" column represent discretionary annual 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 13 to the consolidated financial statements included in our Annual Report on Form 10-K 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 applicable members of management 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

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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 2017, 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 2017, we paid annual base salaries to Dr. Milne, Dr. Donovan and Dr. Nichols in the amounts of \$462,264, \$389,621, and \$346,800, respectively. These 2017 annual base salaries reflected a market-based merit increase from 2016 of 2%. 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.

Annual bonus. 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 2017 were 50%, 40% and 35% 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 2017, we did not award or pay bonuses to Drs. Milne, Donovan or Nichols, as our Board of Directors, upon the recommendation of the compensation committee, determined to grant increased equity incentive compensation to our executive officers in lieu of cash bonuses as a means of reducing our cash expenditures.

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 2017, our Board of Directors granted options to purchase 200,000, 100,000 and 100,000 shares of our common stock to Dr. Milne, Dr. Donovan and Dr. Nichols, respectively, as part of a review of their overall 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

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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 2017 Fiscal Year End Table

The following table sets forth information regarding outstanding stock options held by our NEOs as of December 31, 2017.

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.	84,276	—	\$ 1.67	2/28/2021
	22,292	—	\$ 2.31	12/17/2022
	32,477	—	\$ 2.31	12/17/2022
	28,605	—	\$ 2.31	4/16/2023
	57,149	1,216(1)	\$ 6.81	3/18/2024
	6,420	2,918(2)	\$ 11.05	3/25/2025
	96,667	63,333(3)	\$ 14.05	7/16/2025
	47,208	55,792(4)	\$ 4.57	2/10/2026
	14,063	30,937(5)	\$ 4.31	9/7/2026
	—	200,000(6)	\$ 1.24	2/8/2027
Joanne M. Donovan, M.D., Ph.D.	27,237	—	\$ 1.93	9/6/2021
	7,204	—	\$ 2.31	12/17/2022
	10,496	—	\$ 2.31	12/17/2022
	24,584	—	\$ 2.31	12/17/2022
	14,305	—	\$ 2.31	4/16/2023
	24,764	527(1)	\$ 6.81	3/18/2024
	3,210	1,459(2)	\$ 11.05	3/25/2025
	30,250	35,750(4)	\$ 4.57	2/10/2026
	14,063	30,937(5)	\$ 4.31	9/7/2026
	—	100,000(6)	\$ 1.24	2/8/2027
Andrew Nichols, Ph.D.	55,933	2,432(7)	\$ 6.81	3/18/2024
	1,872	851(2)	\$ 11.05	3/25/2025
	4,864	2,918(8)	\$ 11.05	4/29/2025
	11,917	14,083(4)	\$ 4.57	2/10/2026
	12,500	27,500(5)	\$ 4.31	9/7/2026
	3,792	9,208(9)	\$ 5.79	10/2/2026
	—	100,000(6)	\$ 1.24	2/8/2027

- (1) Became fully vested on January 1, 2018.
- (2) The unvested awards are scheduled to vest in equal monthly installments through March 26, 2019.
- (3) The unvested awards are scheduled to vest in equal monthly installments through July 8, 2019.
- (4) The unvested awards are scheduled to vest in equal monthly installments through February 11, 2020.
- (5) The unvested awards are scheduled to vest in equal monthly installments through September 8, 2020
- (6) 25% of the unvested awards vested on February 9, 2018. The remaining unvested awards are scheduled to vest in equal monthly installments through February 9, 2021.

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- (7) Became fully vested on February 16, 2018.
- (8) The unvested awards are scheduled to vest in equal monthly installments through June 1, 2019.
- (9) 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 Current 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 shall be subject to adjustment from time to time by the Board of Directors in its sole discretion. The Board of Directors has approved for 2018 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 2018 a target cash bonus of up to 40% of annual base salary for Dr. Donovan and up to 35% of annual base salary 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;

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- 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 shall 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, nonsolicitation, 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.

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The following table summarizes the schedule of severance payments our NEOs would receive, assuming a qualifying termination occurred on December 31, 2017.

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	462,264	53,592	22,890	—	538,746
Termination upon a change in control	693,396	53,592	34,336	50,000	831,324
<i>Joanne M. Donovan, M.D., Ph.D.</i>					
Termination without cause or upon resignation with good reason	389,621	—	22,890	—	412,511
Termination upon a change in control	389,621	—	22,890	25,000	437,511
<i>Andrew Nichols, Ph.D.</i>					
Termination without cause or upon resignation with good reason	346,800	—	22,890	—	369,690
Termination upon a change in control	346,800	—	22,890	25,000	394,690

- (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, 2017 (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 \$18,000 in 2017, 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 2017.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The following is a description of transactions since January 1, 2017 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.

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.

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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 general counsel 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—RATIFICATION OF THE APPOINTMENT OF ERNST & YOUNG LLP AS CATABASIS' INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2018

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, 2018. 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.

	Year Ended December 31,	
	2017	2016
Audit Fees(1)	\$ 438,478	\$ 382,383
Audit-Related Fees(2)	—	—
Tax Fees(3)	11,220	12,800
All Other Fees(4)	—	—
Total	<u>\$ 449,698</u>	<u>\$ 395,183</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 2017 or 2016.
- (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 2017 or 2016.

All such accountant services and fees for 2017 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 shall report to the audit committee regarding each service actually provided to us pursuant to such pre-approval.

During our 2017 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 April 21, 2018 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 April 21, 2018. 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 29,035,502 shares of common stock outstanding as of April 21, 2018. Except as otherwise indicated in the table below, addresses of named beneficial owners are in care of Catabasis Pharmaceuticals, Inc., One Kendall Square, Building 1400E, Suite B14202, Cambridge, MA 02139.

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 April 21, 2018. 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 SV Life Sciences(1)	2,857,667	9.8%
Affiliates of Clarus Lifesciences II, L.P.(2)	2,008,192	6.9%
Affiliates of Corriente Advisors, LLC(3)	1,692,899	5.8%
<i>NEOs and Directors</i>		
Jill C. Milne, Ph.D.(4)	759,138	2.6%
Joanne M. Donovan, Ph.D., M.D.(5)	204,743	*
Andrew Nichols, Ph.D.(6)	137,775	*
Burt Adelman, M.D.(7)	8,667	*
Kenneth Bate(8)	23,779	*
Jean George(9)	1,904,748	6.6%
Michael D. Kishbauch(10)	8,667	*
Michael Ross, Ph.D.(11)	2,871,563	9.9%
All current executive officers and directors and 5% shareholders as a group (11 persons)(12)	9,716,109	32.3%

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

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- (1) Consists of 2,798,528 shares of record held by SV Life Sciences Fund V, L.P. ("SVLS V LP") and 59,139 shares of record held by SV Life Sciences Fund V Strategic Partners, L.P. ("SVLS V SPP"). SV Life Sciences Fund V (GP), LP ("SVLS V GP") is the general partner of SVLS V LP and SVLS V SPP. The general partner of SVLS V GP is SVLSF V, LLC. The members of the investment committee of SVLSF V, LLC are Kate Bingham, James Garvey, Eugene D. Hill, III, David Milne and Michael Ross, a member of our Board of Directors. SVLS V LP, SVLS V SPP, SVLS GP, SVLSF V, LLC and each of the individuals comprising the SVLSF V, LLC investment committee may be deemed to share voting, dispositive and investment power over the shares held of record by SVLS V LP and SVLS V SPP. Each of SVLS V LP, SVLS V SPP, SVLS V GP, SVLSF V, LLC and the individual members of the SVLSF V, LLC investment committee disclaim beneficial ownership of the shares owned directly by SVLS V LP and SVLS V SPP except to the extent of any pecuniary interest therein. The address for each of the foregoing entities and individuals, with the exception of Kate Bingham, is One Boston Place, Suite 3900, 201 Washington Street, Boston, Massachusetts 02108. The address for Kate Bingham is 71 Kingsway, London WC2B 6ST, United Kingdom.
- (2) Consists of 2,008,192 shares held of record by Clarus Lifesciences II, L.P. ("Clarus" and such shares, the "Clarus Shares"). Clarus Ventures II GP, L.P. (the "GPLP"), as the sole general partner of Clarus, may be deemed to beneficially own the Clarus Shares. Clarus Ventures II, LLC (the "GPLLC"), as the sole general partner of the GPLP, may be deemed to beneficially own the Clarus Shares. Each of Nicholas Galakatos, Dennis Henner, Robert Liptak, Nicholas Simon and Kurt Wheeler, as individual Managing Directors of the GPLLC, may be deemed to beneficially own Clarus Shares. Each of the foregoing persons and entities disclaims beneficial ownership of the Clarus Shares, other than those shares which such person or entity owns of record. The address for each of the foregoing persons and entities is 101 Main Street, Suite 1210, Cambridge, MA 02142. The foregoing information is based, in part, on a Schedule 13D filed with the SEC on April 4, 2018 that reported beneficial ownership as of March 22, 2018.
- (3) Consists of 1,692,899 shares directly beneficially owned by Corriente Master Fund II, LP ("Corriente Master Fund II"). Corriente Advisors, LLC ("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 control Corriente Advisors and beneficially own securities owned by Corriente Advisors. The address for each of the foregoing persons and entities is 1401 Foch St., Suite 100, Fort Worth, TX 76107. The foregoing information is based on a Schedule 13G filed with the SEC on February 23, 2018 that reported beneficial ownership as of February 16, 2018.
- (4) Includes 496,513 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 21, 2018.
- (5) Includes 204,334 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 21, 2018.
- (6) Consists of 137,775 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 21, 2018.
- (7) Consists of 8,667 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 21, 2018.
- (8) Consists of 23,779 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 21, 2018.

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- (9) Includes 1,133,943 shares held by Advanced Technology Ventures VIII, L.P. ("ATV VIII"). ATV Associates VIII, L.L.C. ("ATV A VIII") is the General Partner of ATV VIII and exercises voting and dispositive authority over the shares held by ATV VIII. Voting and dispositive decisions of ATV A VIII are made collectively by Michael A. Carusi, Jean George, a member of our Board of Directors, Steven N. Baloff, Robert C. Hower and William C. Wiberg (collectively, the "ATV VIII Managing Directors"). ATV A VIII and the ATV VIII Managing Directors disclaim beneficial ownership of the shares held by ATV VIII except to the extent of their pecuniary interest therein. The address for each of the foregoing persons and entities is 500 Boylston Street, Suite 1380, Boston, MA 02116. The information about ATV VIII share ownership is based on a Schedule 13G filed with the SEC on February 14, 2018 that reported ownership as of December 31, 2017. Also includes 666,145 shares of common stock held by Lightstone Ventures, L.P. and 90,764 shares of common stock held by Lightstone Ventures (A), L.P. LSV Associates, LLC ("LSV GP") is the General Partner of Lightstone Ventures, L.P. and Lightstone Ventures (A), L.P. (collectively, "LSV") and exercises voting and dispositive authority over the shares held by LSV. Voting and dispositive decisions of LSV GP are made collectively by Michael A. Carusi, Jean George, a member of our Board of Directors, Ralph E. Christoffersen and Henry A. Plain, Jr. (collectively, the "LSV Managing Directors"). LSV GP and the LSV Managing Directors disclaim beneficial ownership of the shares held by LSV except to the extent of their pecuniary interest therein. Ms. George disclaims beneficial ownership of the shares held by ATV VIII and LSV except to the extent of any pecuniary interest therein. Ms. George's address and the address for the Lightstone Ventures members and entities is 500 Boylston Street, Suite 1380, Boston, MA 02116. Also includes 13,896 shares of common stock issuable upon the exercise of options held by Ms. George exercisable within 60 days after April 21, 2018.
- (10) Consists of 8,667 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 21, 2018.
- (11) Consists of the shares described in note (1) above and 13,896 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 21, 2018. Dr. Ross is a member of the investment committee of SVLSF V, LLC, which is the general partner of SV Life Sciences Fund V (GP), which is the general partner of SV Life Sciences Fund V, L.P. and SV Life Sciences Fund V Strategic Partners, L.P., and, as a result, Dr. Ross may be deemed to share voting, dispositive and investment power over the shares held of record by SV Life Sciences Fund V, L.P. and SV Life Sciences Fund V Strategic Partners L.P. Dr. Ross disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. Dr. Ross' address is One Boston Place, Suite 3900, Boston, Massachusetts 02108.
- (12) Includes 1,003,465 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 21, 2018.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our directors, executive officers, and persons holding more than 10% of Catabasis common stock to report their initial ownership of our common stock and other equity securities and any changes in that ownership in reports that must be filed with the SEC. The SEC has designated specific deadlines for these reports, and we must identify in this proxy statement those persons who did not file these reports when due.

Based solely on a review of reports furnished to us, or written representations from reporting persons, we believe all directors, executive officers, and 10% owners timely filed all reports regarding transactions in Catabasis' securities required to be filed for 2017 by Section 16(a) under the Exchange Act.

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, 2017. The audit committee also discussed with the independent registered public accounting firm the matters required to be discussed by the PCAOB's Auditing Standard No. 1301, *Communications with Audit Committees*. 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, 2017, that was filed with the SEC.

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

Kenneth Bate, Chairman
Michael Ross, Ph. D.
Michael Kishbauch

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., One Kendall Square, Building 1400E, Suite B14202, Cambridge, MA 02139, 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 considered for inclusion in our 2019 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 27, 2018, which is 120 days prior to the first anniversary of the mailing date of this proxy statement. However, if the date of the 2018 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 2019 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 2019 annual meeting of stockholders, the required notice must be received by our corporate secretary at our principal executive offices no earlier than February 7, 2019 and no later than March 9, 2019.

Stockholder proposals should be addressed to Catabasis Pharmaceuticals, Inc., One Kendall Square, Building 1400E, Suite B14202, Cambridge, MA 02139, Attention: Corporate Secretary.

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.
 One Kendall Square, Building 1400E
 Suite 814202
 Cambridge, MA 02139

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time on June 6, 2018. 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 up until 11:59 P.M. Eastern Time on June 6, 2018. 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 style="padding-left: 20px;">Nominees</p> <p>1a Michael Ross, Ph.D. 1b Burt Adelman, M.D.</p>	<p>For All</p> <p style="text-align: center;">○</p>	<p>Withhold All</p> <p style="text-align: center;">○</p>	<p>For All Except</p> <p style="text-align: center;">○</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 the following proposal:</p> <p>2. Ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2018.</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 item 2. If any other matters properly come before the meeting, the persons named in this proxy will vote in their discretion.</p>	<p>For</p> <p style="text-align: center;">○</p>	<p>Against</p> <p style="text-align: center;">○</p>	<p>Abstain</p> <p style="text-align: center;">○</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>				
Signature [PLEASE SIGN WITHIN BOX]				Signature (Joint Owners)
Date				Date

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

**THIS PROXY IS SOLICITED ON BEHALF OF
THE BOARD OF DIRECTORS OF CATABASIS
PHARMACEUTICALS, INC.
June 7, 2018 at 10:00 AM ET**

The stockholder(s) hereby appoint(s) Jill C. Milne, Ph. D., and Deirdre A. Cunnane, or either of them, as proxies, each with the power to appoint her substitute, and hereby authorize(s) them 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 7, 2018, at the offices of WilmerHale located at 60 State Street, Boston, MA 02109, 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 PROPOSAL 2. 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

