

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

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

Genocea Biosciences, 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:
 - (2) Aggregate number of securities to which transaction applies:
 - Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
 - (3) Proposed maximum aggregate value of transaction:
 - (4) Total fee paid:
- Fee paid previously with preliminary materials.
 - Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
- (1) Amount Previously Paid:
 - (2) Form, Schedule or Registration Statement No.:
 - (3) Filing Party:
 - (4) Date Filed:

Genocea Biosciences, Inc.
100 Acorn Park Drive,
Cambridge, MA 02140

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

The 2021 Annual Meeting of Stockholders of Genocea Biosciences, Inc. (the "Company" or "Genocea") will be held on June 24, 2021 at 9:00 a.m. ET. We have adopted a virtual format for our Annual Meeting to provide a consistent experience to all stockholders regardless of location. We will provide a live webcast of the Annual Meeting at www.virtualshareholdermeeting.com/GNCA2021. The meeting will be held for the following purposes:

1. To elect Mr. Kenneth Bate and Dr. Ali Behbahani as Class I directors, each for a three-year term;
2. To approve, on an advisory basis, the compensation paid to our named executive officers;
3. To approve an amendment to Genocea's restated certificate of incorporation to provide that the courts located within the state of Delaware will serve as the exclusive forum for the adjudication of certain legal disputes;
4. To approve an amendment to Genocea's restated certificate of incorporation to provide for an increase in the total number of shares of common stock that the Company is authorized to issue from 170,000,000 shares to 225,000,000 shares;
5. To ratify the appointment of Ernst & Young LLP as the independent registered public accounting firm for the Company for the fiscal year ending December 31, 2021; and
6. To consider and act upon any other matters that properly come before the Annual Meeting or any adjournment or postponement thereof.

Each outstanding share of the Company's common stock (Nasdaq: GNCA) entitles the holder of record at the close of business on April 27, 2021, to receive notice of and to vote at the Annual Meeting or any adjournment or postponement of the Annual Meeting.

Due to the ongoing public health impact of the coronavirus outbreak (COVID-19) and to support the health and well-being of our directors, employees and stockholders, our Annual Meeting will be a completely virtual meeting of stockholders, which will be conducted via live webcast. You will be able to attend the Annual Meeting online and submit your questions during the meeting by visiting www.virtualshareholdermeeting.com/GNCA2021. You will also be able to vote your shares electronically at the Annual Meeting. Details regarding how to attend the meeting online are more fully described in the proxy statement.

WHETHER OR NOT YOU EXPECT TO ATTEND THE ANNUAL MEETING, WE URGE YOU TO VOTE YOUR SHARES BY FOLLOWING THE INSTRUCTIONS TO THE IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS THAT YOU PREVIOUSLY RECEIVED AND SUBMIT YOUR PROXY BY INTERNET, TELEPHONE, OR BY SIGNING, DATING AND RETURNING THE PROXY CARD INCLUDED IN THESE MATERIALS. IF YOU CHOOSE TO ATTEND THE ANNUAL MEETING, YOU MAY STILL VOTE YOUR SHARES, EVEN THOUGH YOU HAVE PREVIOUSLY VOTED OR RETURNED YOUR PROXY BY ANY OF THE METHODS DESCRIBED IN OUR PROXY STATEMENT. IF YOUR SHARES ARE HELD IN A BANK OR BROKERAGE ACCOUNT, PLEASE REFER TO THE MATERIALS PROVIDED BY YOUR BANK, BROKER OR OTHER NOMINEE FOR VOTING INSTRUCTIONS.

ALL STOCKHOLDERS ARE EXTENDED AN INVITATION TO ATTEND THE ANNUAL MEETING.

By Order of the Board of Directors



William Clark
President and Chief Executive Officer
April 29, 2021

Genocea Biosciences, Inc.
100 Acorn Park Drive,
Cambridge, MA 02140

PROXY STATEMENT FOR ANNUAL MEETING OF STOCKHOLDERS
To Be Held On June 24, 2021 at 9:00 a.m. ET

This proxy statement (the “Proxy Statement”), along with the accompanying Notice of 2021 Annual Meeting of Stockholders, contains information about the Annual Meeting, including any adjournments or postponements of the Annual Meeting. We are holding the Annual Meeting as a virtual meeting at 9:00 a.m. ET, at www.virtualshareholdermeeting.com/GNCA2021.

On or about April 29, 2021, we made available this Proxy Statement and the attached Notice of 2021 Annual Meeting of Stockholders to all stockholders entitled to vote at the Annual Meeting, and we began sending the proxy card and the Important Notice Regarding the Availability of Proxy Materials to all stockholders entitled to vote at the Annual Meeting. Although not part of this Proxy Statement, we have also made available with this Proxy Statement our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 (the “Annual Report”), which includes our financial statements for the fiscal year ended December 31, 2020.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDER MEETING TO BE HELD ON JUNE 24, 2021

This Proxy Statement and our Annual Report are available for viewing, printing and downloading at www.proxyvote.com. To view these materials, please have your 16-digit control number(s) available that appears on your proxy card.

Additionally, you can find a copy of our Annual Report on the website of the Securities and Exchange Commission (“SEC”) at www.sec.gov, or in the “Financials & Filings - Annual Reports and Proxies” tab of the “Investors” section of our website at www.genocea.com. You may also obtain a printed copy of our Annual Report, free of charge, by sending a written request to: Genocea Biosciences, Inc., 100 Acorn Park Drive, Cambridge, Massachusetts 02140, Attention: Secretary. Exhibits, if any, will be provided upon written request and payment of an appropriate processing fee.

GENERAL INFORMATION

When are this Proxy Statement and the accompanying material scheduled to be sent to stockholders?

On or about April 29, 2021, we began sending the Important Notice Regarding the Availability of Proxy Materials to all stockholders entitled to vote at the Annual Meeting.

Who is soliciting my vote?

The Board of Directors of the Company is soliciting your vote for the 2021 Annual Meeting of Stockholders.

When is the record date for the Annual Meeting?

The Company's Board of Directors has fixed the record date for the Annual Meeting as of the close of business on April 27, 2021.

Meeting Information

We will hold the Annual Meeting exclusively online via a live audio webcast at www.virtualshareholdermeeting.com/GNCA2021 at 9:00 a.m. ET on June 24, 2021, unless adjourned or postponed. There is no physical location for the Annual Meeting. Directions for accessing the virtual Annual Meeting can be found under the Investors section of our website at www.genocea.com.

Why a virtual Annual Meeting?

Due to the ongoing public health impact of the coronavirus outbreak (COVID-19) and to support the health and well-being of our directors, employees and stockholders, we are relying on the latest technology to host a virtual Annual Meeting. Stockholders will be able to attend the Annual Meeting online and submit questions by visiting www.virtualshareholdermeeting.com/GNCA2021. Stockholders will also be able to vote their shares electronically during the Annual Meeting.

How do I attend the Annual Meeting?

Our Annual Meeting will begin promptly at 9:00 a.m. ET in a virtual meeting format at www.virtualshareholdermeeting.com/GNCA2021. To participate in the Annual Meeting, you will need the 16-digit control number included in your Notice or on the instructions that accompanied your proxy materials. The meeting webcast will begin promptly at 9:00 a.m. ET. We encourage you to access the meeting prior to the start time. Online check-in will start shortly before the meeting, and you should allow ample time for the check-in procedures. Instructions should also be provided on the voting instruction card provided by your bank, broker or other nominee. If you lose your 16-digit control number, you may join the Annual Meeting as a “Guest,” but you will not be able to vote, ask questions or access the list of stockholders as of the Record Date.

What if During the Check-In Time or During the Annual Meeting I have Technical Difficulties or Trouble Accessing the Virtual Meeting Website?

We will have technicians ready to assist you with any technical difficulties you may have accessing the virtual meeting website. If you encounter any difficulties accessing the virtual meeting website during the check-in or meeting time, please call the technical support number that will be posted on the Annual Meeting log-in page.

How many votes can be cast by all stockholders?

A total of 54,434,839 shares of common stock of the Company were outstanding on April 27, 2021 and are entitled to be voted at the Annual Meeting. Each share of common stock is entitled to one vote on each matter.

How do I vote?

If you are a stockholder of record and your shares are registered directly in your name, you may vote:

- **By Internet.** Access the website at www.proxyvote.com and follow the instructions provided on the Important Notice Regarding Availability of Proxy Materials on the proxy card. Your shares will be voted in accordance with your instructions. You must specify how you want your shares voted, or your Internet vote cannot be completed and you will receive an error message.
- **By Telephone.** Call 1-800-690-6903 toll-free and follow the instructions on the enclosed proxy card. Your shares will be voted in accordance with your instructions. You must specify how you want your shares voted, or your telephone vote cannot be completed.
- **By Mail.** Complete and mail the enclosed proxy card to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717 in the enclosed postage prepaid envelope. Your proxy will be voted in accordance with your instructions. If you sign and return the enclosed proxy but do not specify how you want your shares voted, they will be voted (i) **FOR** the election as directors of the nominees named herein to the Company's Board of Directors, (ii) **FOR** approval of the advisory vote on the compensation paid to our named executive officers; (iii) **FOR** approval of the amendment to Genocera's restated certificate of incorporation to provide that the courts located within the state of Delaware will serve as the exclusive forum for the adjudication of certain legal disputes, (iv) **FOR** approval of the amendment to our restated certificate of incorporation to increase the number of shares of common stock authorized for issuance from 170,000,000 shares to 225,000,000 shares; (v) **FOR** the ratification of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2021, and (vi) will be voted according to the discretion of the proxy holder named in the proxy card upon any other business that may properly be brought before the Annual Meeting and at all adjournments and postponements thereof.
- **At the Annual Meeting.** The Annual Meeting will be held entirely online. To participate in the Annual Meeting, you will need the 16-digit control number included in your Notice or on the instructions that accompanied your proxy materials. The meeting webcast will begin promptly at 9:00 a.m. ET. We encourage you to access the meeting prior to the start time. Online check-in will start shortly before the meeting, and you should allow ample time for the check-in procedures. Instructions should also be provided on the voting instruction form provided by your bank, broker or other nominee. If you lose your 16-digit control number, you may join the Annual Meeting as a "Guest," but you will not be able to vote, ask questions or access the list of stockholders as of the Record Date.

If your shares of common stock are held in street name (held for your account by a bank, broker or other nominee):

- **By Internet or By Telephone.** You will receive instructions from your bank, broker or other nominee if you are permitted to vote by Internet or telephone.
- **By Mail.** You will receive instructions from your bank, broker or other nominee explaining how to vote your shares.
- **At the Annual Meeting.** The Annual Meeting will be held entirely online. To participate in the Annual Meeting, you will need the 16-digit control number included in your Notice or on the instructions that accompanied your proxy materials. The meeting webcast will begin promptly at 9:00 a.m. ET. We encourage you to access the meeting prior to the start time. Online check-in will start shortly before the meeting, and you should allow ample time for the check-in procedures. Instructions should also be provided on the voting instruction form provided by your bank, broker or other nominee. If you lose your 16-digit control number, you may join the Annual Meeting as a "Guest," but you will not be able to vote, ask questions or access the list of stockholders as of the Record Date.

Management, members of our board and representatives of Ernst & Young LLP are expected to attend the Annual Meeting and be available to respond to questions from shareholders.

What are the Board's recommendations on how to vote my shares?

The Board of Directors recommends a vote:

Proposal 1: FOR electing the two nominees for Class I directors.

Proposal 2: FOR approving, on an advisory basis, the compensation paid to our named executive officers.

Proposal 3: FOR approving the amendment to Genoece's restated certificate of incorporation to provide that the courts located within the state of Delaware will serve as the exclusive forum for the adjudication of certain legal disputes.

Proposal 4: FOR approving the amendment to Genoece's restated certificate of incorporation to provide for an increase in the total number of shares of common stock that the Company is authorized to issue from 170,000,000 shares to 225,000,000 shares.

Proposal 5: FOR ratification of the appointment of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year 2021.

Who pays the cost for soliciting proxies?

Genoece will bear the cost of solicitation of proxies. This includes the charges and expenses of brokerage firms and others for forwarding solicitation material to beneficial owners of our outstanding common stock as well as support for hosting of the virtual Annual Meeting. Genoece may solicit proxies by mail, personal interview, telephone, or via the Internet through its officers, directors and other management employees, who will receive no additional compensation for their services.

Can I change my vote?

You may revoke your proxy at any time before it is voted by notifying the Secretary in writing, by returning a signed proxy with a later date, by transmitting a subsequent vote over the Internet or by telephone prior to the close of the Internet voting facility or the telephone voting facility, or by attending the Annual Meeting online. If your stock is held in street name, you must contact your bank, broker or other nominee for instructions as to how to change your vote.

How is a quorum reached?

The presence, online or by proxy, of holders of at least a majority of the total number of outstanding shares entitled to vote is necessary to constitute a quorum for the transaction of business at the Annual Meeting. Abstentions and "broker non-votes" (i.e., shares represented at the Annual Meeting held by banks, brokers or other nominees as to which instructions have not been received from the beneficial owners or persons entitled to vote such shares and, with respect to one or more but not all issues, such banks, brokers or other nominees do not have discretionary voting power to vote such shares), if any, will be counted for purposes of determining whether a quorum is present for the transaction of business at the Annual Meeting.

What vote is required to approve each item?

Proposal 1: Directors are elected by a plurality of votes cast. A "withhold" vote with respect to the election of one or more directors will have no effect on the outcome of Proposal 1. Broker non-votes will have no effect on the outcome of Proposal 1.

Proposal 2: Because approval of the compensation paid to our named executive officers is an advisory vote there is no "required" vote. We will consider a majority of votes cast to be approval for Proposal 2. Abstentions and broker non-votes will have no effect on the outcome of Proposal 2.

Proposal 3: The holders of a majority of the Company's outstanding shares of common stock must approve of the amendment to the Company's restated certificate of incorporation to provide that the courts located within the state of Delaware will serve as the exclusive forum for the adjudication of certain legal disputes. Accordingly, abstentions and broker non-votes will have the same effect as an "against" vote on Proposal 3.

Proposal 4: The affirmative vote of a majority of the shares of common stock outstanding is required for the approval of the amendment to the Company's restated certificate of incorporation to provide for an increase in the total number of shares of common stock that the Company is authorized to issue from 170,000,000 shares to 225,000,000 shares. Accordingly, abstentions and broker non-votes will have the same effect as an "against" vote. The Company expects that brokers, banks and other nominees will have discretionary authority to vote on Proposal 4, so the Company does not expect broker non-votes on this proposal.

Proposal 5: A majority of votes cast is necessary for ratification of the selection of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2021. A vote to abstain will have no direct effect on the outcome. The Company expects that brokers, banks and other nominees will have discretionary authority to vote on Proposal 5, so the Company does not expect broker non-votes on this proposal.

If there are insufficient votes to approve these proposals, your proxy may be voted by the persons named in the proxy card to adjourn the Annual Meeting in order to solicit additional proxies in favor of the approval of such proposals. If the Annual Meeting is adjourned or postponed for any purpose, at any subsequent reconvening of the Annual Meeting, your proxy will be voted in the same manner as it would have been voted at the original convening of the Annual Meeting unless you withdraw or revoke your proxy.

What are “broker non-votes” and how do they affect the proposals?

A broker non-vote occurs when a broker, bank or other nominee holding shares for a beneficial owner does not vote the shares on a proposal because the nominee does not have discretionary voting power for a particular item and has not received instructions from the beneficial owner regarding voting. Brokers, banks and other nominees who hold shares for the accounts of their clients have discretionary authority to vote shares if specific instructions are not given with respect to routine matters. Although the determination of whether a nominee will have discretionary voting power for a particular item is typically determined only after proxy materials are filed with the SEC, we expect that the proposal to amend the Company’s restated certificate of incorporation to provide for an increase in the total number of shares of common stock that the Company is authorized to issue from 170,000,000 shares to 225,000,000 shares (Proposal 4) and the proposal on ratification of the appointment of our independent registered public accounting firm (Proposal 5) will be routine matters and that the other proposals (Proposals 1, 2 and 3) will be non-routine matters. Accordingly, if your shares are held by a broker, bank or other nominee on your behalf and you do not instruct the broker, bank or other nominee as to how to vote your shares, your broker will be entitled to exercise discretion to vote your shares only on Proposals 4 and 5, but your broker, bank or other nominee may not exercise discretion to vote on the other proposals.

Could other matters be decided at the Annual Meeting?

Genocea does not know of any other matters that may be presented for action at the Annual Meeting. Should any other business come before the Annual Meeting, the persons named on the enclosed proxy will have discretionary authority to vote the shares represented by such proxies in accordance with their best judgment. If you hold shares through a broker, bank or other nominee as described above, they will not be able to vote your shares on any other business that comes before the Annual Meeting unless they receive instructions from you with respect to such matter.

What happens if the Annual Meeting is postponed or adjourned?

Your proxy may be voted at the postponed or adjourned Annual Meeting. You will still be able to change your proxy until it is voted.

What does it mean if I receive more than one proxy card or voting instruction form?

It means that you have multiple accounts at the transfer agent or with brokers. Please complete and return all proxy cards or voting instruction forms to ensure that all of your shares are voted.

Who should I call if I have any additional questions?

If you hold your shares directly, please call Diantha Duvall, Secretary, at 617-876-8191. If your shares are held in street name, please contact the telephone number provided on your voting instruction form or contact your bank, broker or other nominee holder directly.

PROPOSAL NO. 1—ELECTION OF DIRECTORS

In accordance with the Company's restated certificate of incorporation and amended and restated bylaws, the Board of Directors is divided into three classes of approximately equal size. The members of each class are elected to serve a three-year term with the term of office of each class ending in successive years. Kenneth Bate and Ali Behbahani are the Class I directors whose terms expire at the Annual Meeting. Mr. Bate and Dr. Behbahani have each been nominated for and have agreed to stand for re-election to the Board of Directors to serve as a Class I director of the Company until the 2024 annual meeting of stockholders and until his successor is duly elected.

It is intended that, unless you give contrary instructions, shares represented by proxies will be voted for the election of the two nominees listed above as director nominees. Genocera has no reason to believe that any nominee will be unable to serve. In the event that one or more nominees is unexpectedly not available to serve, proxies may be voted for another person nominated as a substitute by the Board of Directors, or the Board of Directors may reduce the number of directors to be elected at the Annual Meeting. Information relating to each nominee for election as director and for each continuing director, including his or her period of service as a director of Genocera, principal occupation and other biographical material, is shown below.

Vote Required

Directors are elected by a plurality of votes cast. A withhold vote with respect to the election of one or more directors will have no effect on the outcome of this proposal. Broker non-votes will have no effect on the outcome of this proposal.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE
FOR
ALL OF THESE NOMINEES FOR CLASS I DIRECTOR
(PROPOSAL 1 ON YOUR PROXY CARD)**

DIRECTOR BIOGRAPHIES

Below sets forth information concerning our directors as of April 1, 2021. The biographical description of each director includes the specific experience, qualifications, attributes and skills that the Board of Directors would expect to consider if it were making a conclusion currently as to whether such person should serve as a director.

CLASS III DIRECTOR NOMINEES

Kenneth Bate, age 70, is a Class I director who has served as a member of our Board of Directors since September 2014 and our chair since December 2018. Mr. Bate has served as an independent consultant in the biotechnology field since 2012. From 2009 to 2012, Mr. Bate served as President and Chief Executive Officer of Archemix, Inc., a privately-held biotechnology company. From 2006 to 2009, Mr. Bate served in various positions at NitroMed, Inc., a pharmaceutical company, most recently as President and Chief Executive Officer. From 2002 to 2005, Mr. Bate served as Chief Financial Officer of Millennium Pharmaceuticals Inc., where he headed the commercial organization. Prior to joining Millennium Pharmaceuticals Inc., Mr. Bate co-founded JSB Partners, LLC, a banking and advisory services firm for biopharmaceutical and life sciences companies. From 1990 to 1996, he was with Biogen Inc., a biotechnology company, first as their Chief Financial Officer, and then as head of the commercial organization responsible for launching the multiple sclerosis business. Mr. Bate is currently a director of AVEO Pharmaceuticals Inc., Catabasis Pharmaceuticals Inc., Epizyme Inc., and Madrigal Pharmaceuticals Inc. He holds a B.A. from Williams College and an M.B.A. from The Wharton School of the University of Pennsylvania. We believe that Mr. Bate's experience as a chief executive officer of multiple biotechnology companies, as well as his experience as a director of other companies, qualifies him to serve as a member of our Board of Directors.

Ali Behbahani, M.D., age 44, is a Class I director who has served as a member of our Board of Directors since February 2018. Since 2007, Dr. Behbahani has served in various positions on the healthcare team at New Enterprise Associates, most recently as General Partner. The healthcare team specializes in investments in the biopharmaceutical and medical device sectors. He is also currently a member of the board of directors of CRISPR Therapeutics AG, Adaptimmune Therapeutics plc, NKarta, Inc., Black Diamond Therapeutics, Inc. and Oyster Point Pharma, Inc. He has previously worked as a consultant in business development at The Medicines Company and held positions as a Venture Associate at Morgan Stanley Venture Partners from 2000 to 2002 and as a Healthcare Investment Banking Analyst at Lehman Brothers from 1998 to 2000. Dr. Behbahani conducted basic science research in the fields of viral fusion inhibition and structural proteomics at the National Institutes of Health and at Duke University. He holds an M.D. degree from the University of Pennsylvania School of Medicine and an M.B.A. from The Wharton School of the University of Pennsylvania. We believe Dr. Behbahani's experience in the biopharmaceutical industry, as well as his experience as a member on the boards of directors of multiple companies in the industry, qualifies him to serve as a member of our Board of Directors.

DIRECTORS NOT STANDING FOR ELECTION AT THE ANNUAL MEETING

Katrine Bosley, age 52, is a Class II director who has served as a member of our Board of Directors since March 2013 and as our chair from August 2013 until December 2018. Ms. Bosley served as the Chief Executive Officer of Editas Medicine Inc. ("Editas") from June 2014 through February 2019. Prior to Editas, Ms. Bosley was the Entrepreneur-in-Residence at The Broad Institute from September 2013 to May 2014. She served as Chief Executive Officer of Avila Therapeutics Inc. ("Avila"), from May 2009 to March 2012, when Avila was acquired by Celgene Corporation. Before Avila, she was Vice President, Strategic Operations at Adnexus Therapeutics Inc. ("Adnexus"), a subsidiary of Bristol Meyers Squibb Company ("BMS"), and was Vice President, Business Development at Adnexus before that. She joined Adnexus from Biogen Idec Inc. where she held roles in business development, commercial operations, and portfolio strategy in the United States and Europe. In addition to serving as a director of our Company, Ms. Bosley currently serves as Chairman of the Board of Arrakis Therapeutics, Inc., and as a director of Galapagos NV and Massachusetts Eye and Ear. She was also a member of the Biotechnology Innovation Organization Governing Board and Chair of the Emerging Companies Section of the Board. Ms. Bosley graduated from Cornell University with a B.A. in Biology. We believe that Ms. Bosley's experience as a chief executive officer of a biotechnology company and her breadth of experience in creating strategic and business development value qualifies her to serve as a member of our Board of Directors.

William "Chip" Clark, age 52, is a Class III director who has served on our Board of Directors and as our President and Chief Executive Officer since February 2011. Previously, he served as our Chief Business Officer from August 2010 to February 2011. Mr. Clark has served on our Board of Directors since February 2011. Prior to joining our Company, he served as Chief Business Officer at Vanda Pharmaceuticals, Inc. ("Vanda"), a biopharmaceutical company that he co-founded in 2004. While at Vanda, he led the company's strategic and business development activities, and played a central role in multiple public and private financings. Prior to Vanda, Mr. Clark was a principal at Care Capital, LLC, a venture capital firm investing in biopharmaceutical companies, after serving in a variety of strategic and commercial roles at SmithKline Beecham Ltd. (now GlaxoSmithKline plc). Mr. Clark holds a B.A. from Harvard University and an M.B.A. from The Wharton School of the University of Pennsylvania. We believe that Mr. Clark's operational and historical experience with our Company gained from serving as our President and Chief Executive Officer, and as a member of our Board of Directors, combined with his prior experience at Vanda and in the venture capital industry focusing on biopharmaceutical companies, qualifies him to serve as a member of our Board of Directors.

Ronald Cooper, age 58, is a Class III director who has served as a member of our Board of Directors since June 2016. Mr. Cooper is President and CEO of Albireo Pharma ("Albireo"), a position that he was appointed to in June 2015. Mr. Cooper is a life sciences leader with a track record of growing and rejuvenating businesses in the U.S. and Europe, ranging from entrepreneurial and resource-constrained organizations to large multinationals. Prior to Albireo, Mr. Cooper was with BMS for over 25 years working in five different countries and holding positions of increasing responsibility in sales, marketing and general management, culminating in his role as President of Europe. As President of Europe, Mr. Cooper was responsible for operations in over 30 countries with sales in the region exceeding \$4.5 billion. While at BMS, Mr. Cooper was directly associated with several product successes, including Abilify®, Avapro®, Atripla®, Eliquis®, Orenicia®, Pravachol®, Plavix®, Reyataz®, Sustiva®, Sprycel® and Yervoy®. Mr. Cooper has successfully completed over a dozen business development deals including the creation of the first single tablet HIV/AIDS regimen partnership. Mr. Cooper is a graduate of St. Francis Xavier University. We believe that Mr. Cooper's experience in the pharmaceutical industry, along with his background as an executive officer of a public company, qualifies him to serve as a member of our Board of Directors. On April 12, 2021, Mr. Cooper notified the Company of his desire to resign from our Board of Directors, effective April 12, 2021. Mr. Cooper's resignation was not a result of or caused by any disagreement with the Company.

Michael Higgins, age 58, is a Class II director who has served as a member of our Board of Directors since February 2015. Mr. Higgins is a serial entrepreneur who has helped launch six companies since 2015. Mr. Higgins served as Entrepreneur-in-Residence at Polaris Partners from 2015 - 2020. From 2003 - 2014 he was Senior Vice President, Chief Operating Officer of Ironwood Pharmaceuticals Inc. At Ironwood, Mr. Higgins led the company's finance, operations, and strategy efforts, through its initial public offering and the launch of its first commercial product. Prior to 2003, Mr. Higgins spent seven years and held a variety of senior business positions at Genzyme Corporation, including Vice President of Corporate Finance and Vice President of Business Development. Prior to joining Genzyme Corporation, Mr. Higgins led Procept, Inc.'s financial team from founding through its initial public offering. He is currently the chairman of the board of both Pulmatrix, Inc and Voyager Therapeutics, Inc. In addition, he is a board member at Nocion Therapeutics, Inc., Camp4 Therapeutics Corporation and Sea Pharmaceuticals LLC. Mr. Higgins earned his B.S. from Cornell University and holds an M.B.A. from the Amos Tuck School of Business at Dartmouth College. We believe that Mr. Higgins' financial and business expertise, including his diversified background as an executive officer in public pharmaceutical companies, qualifies him to serve as a member of our Board of Directors.

Gisela Schwab, M.D., age 64, is a Class II director who was appointed to serve as a member of our Board of Directors in February 2020. Dr. Schwab has served as President, Product Development and Medical Affairs and Chief Medical Officer of Exelixis, Inc. (“Exelixis”) since February 2016. Previously, she served as Executive Vice President and Chief Medical Officer of Exelixis from January 2008 to February 2016 and as Senior Vice President and Chief Medical Officer of Exelixis from September 2006 to January 2008. From 2002 to 2006, she held the position of Senior Vice President and Chief Medical Officer at Abgenix, Inc. (“Abgenix”), a human antibody-based drug development company. She also served as Vice President, Clinical Development, at Abgenix from 1999 to 2001. Prior to working at Abgenix, from 1992 to 1999, she held positions of increasing responsibility at Amgen Inc., most recently as Director of Clinical Research and Hematology/Oncology Therapeutic Area Team Leader. From August 2011 through July 2014, Dr. Schwab served as a member of the board of directors of Topotarget A/S, a publicly-held biopharmaceutical company. Since June 2012 she has served as a member of the board of directors of Cellarent Therapeutics, Inc. a privately-held biopharmaceutical company and from March 2015 through June 2020, she served as a member of the board of directors of Nordic Nanovector A.S., a Norwegian biotechnology company. She received her Doctor of Medicine degree from the University of Heidelberg, trained at the University of Erlangen-Nuremberg and the National Cancer Institute and is board certified in internal medicine and hematology and oncology. We believe that Dr. Schwab’s scientific expertise, which includes advancing product candidates through development and regulatory approval to commercial launch, qualifies her to serve as a member of our Board of Directors.

George Siber, M.D., age 76, is a Class III director who has served as a member of our Board of Directors since 2007. From 1996 to 2007, Dr. Siber served as Executive Vice President and Chief Scientific Officer of Wyeth Vaccines (“Wyeth”). While at Wyeth, Dr. Siber oversaw the development and approval of multiple widely-used childhood vaccines, including: Prevnar®, a pneumococcal vaccine which has achieved multibillion dollar revenues; Acel-Imune, an acellular pertussis vaccine; Meningitec, a meningococcal meningitis vaccine; and FluMist®, a nasal influenza vaccine. Prior to Wyeth, Dr. Siber was Director of the Massachusetts Public Health Biologic Laboratories and a Harvard Medical School Associate Professor of Medicine at Dana Farber Cancer Institute. During this time, Dr. Siber led the research and manufacturing of multiple vaccines and immune globulins including Respigam, a human immune globulin against respiratory syncytial virus. Dr. Siber has served on the boards of directors of several vaccine companies, including Crucell N.V., Selecta Biosciences, Inc., Vedantra Pharmaceuticals, Inc. and Affinivax, Inc., and as a consultant or scientific advisory board member to Advaccine Biopharmaceuticals Suzhou Co., Ltd., Cansino Biologics, Inc., Sichuan Clover Biopharmaceuticals, Inc., CureVac N.V., COVAXX (a division of United Biomedical, Inc.), ILiAD Biotechnologies, LLC, Valneva SE, Vaxess Technologies, Inc., the Bill & Melinda Gates Foundation, PATH, the Wellcome Trust, the European Commission and the National Institutes of Health. Dr. Siber serves as a member of the Board of Trustees of the International Vaccine Institute. Dr. Siber holds an M.D. degree from McGill University, received post-doctoral training in Internal Medicine at Rush-Presbyterian Hospital and Beth Israel Hospital and Infectious Disease and vaccinology training at Children’s Hospital and Beth Israel Hospital, Harvard Medical School. We believe that Dr. Siber’s experience in life sciences, vaccine industries and his experience overseeing the development of multiple vaccines qualifies him to serve as a member of our Board of Directors.

BOARD OF DIRECTORS AND ITS COMMITTEES

The following table describes which directors serve on each of the committees of the Board of Directors as of April 14, 2021.

Director Name	Committee		
	Audit	Compensation	Nominating and Governance
Kenneth Bate, Chairman of the Board	W	V	
Ali Behbahani, M.D.		W	
Katrine Bosley	W		V
William Clark, CEO			
Michael Higgins	V		
Gisela Schwab, M.D.		W	
George Siber, M.D.			W

W Member

V Committee chair

THE BOARD OF DIRECTORS AND ITS COMMITTEES

Director Independence

As required by the listing standards of The Nasdaq Capital Market ("Nasdaq"), the Board of Directors has affirmatively determined, upon the recommendation of the Nominating and Corporate Governance Committee, that each of our directors (other than William Clark, our President and Chief Executive Officer) is independent. To make this determination, our Board of Directors reviews all relevant transactions or relationships between each director and Genocoe, its senior management and its independent registered public accounting firm. During this review, the Board of Directors considers whether there are any transactions or relationships between directors or any member of their immediate family (or any entity of which a director or an immediate family member is an executive officer, general partner or significant equity holder) and members of our senior management or their affiliates. The Board of Directors consults with Genocoe's outside corporate counsel to ensure that the Board of Directors' determinations are consistent with all relevant securities and other laws and regulations regarding the definition of "independent," including those set forth in pertinent Nasdaq listing standards, as in effect from time to time.

Board Meetings and Attendance

The Board of Directors held five meetings during the year ended December 31, 2020. All of our directors, except for Katrine Bosley (who attended 71% of the meetings), attended at least 75% of the meetings of the Board of Directors and the committees of the Board of Directors on which he or she served during the year ended December 31, 2020 (in each case, which were held during the period for which he or she was a director and/or a member of the applicable committee). Although the Company does not have a formal policy with regard to director attendance at its annual meetings of stockholders, each director who is up for election at an annual meeting of stockholders or who has a term that continues after such annual meeting is expected to attend the Annual Meeting. All but one of our then existing directors on the Board of Directors attended our 2020 annual meeting.

Board Committees

The Board of Directors has standing Audit, Compensation and Nominating and Corporate Governance Committees, each of which is comprised solely of independent directors, and is described more fully below. The charters for the Audit, Compensation and Nominating and Corporate Governance Committees are all available on our website (<https://ir.genocoe.com/>) under "Investors" at "Governance".

Audit Committee

Our Audit Committee is composed of Mr. Bate, Ms. Bosley, and Mr. Higgins, with Mr. Higgins serving as chair of the committee. Our Board of Directors has determined, upon the recommendation of the Nominating and Corporate Governance Committee, that each member of the Audit Committee meets the independence requirements of Rule 10A-3 under the Exchange Act of 1934, as amended (the "Exchange Act") and the applicable listing standards of Nasdaq. Our Board of Directors has determined that each of Mr. Bate and Mr. Higgins is an "audit committee financial expert" within the meaning of the SEC regulations and applicable listing standards of Nasdaq. Our Audit Committee operates pursuant to a written charter, and it reviews and assesses the adequacy of its charter annually.

The Audit Committee's responsibilities include:

- appointing, approving the compensation of, and assessing the qualifications, performance and independence of our independent registered public accounting firm by considering (i) evaluations of our independent registered public accounting firm by our management and internal auditors, as applicable, (ii) our independent registered public accounting firm's effectiveness of communications and working with the Audit Committee and our management and internal auditors, as applicable, (iii) the length of time our independent registered public accounting firm has served as our independent auditors, (iv) the quality and depth of our independent registered public accounting firm's expertise and experience in the biotech and life sciences industries in light of the breadth, complexity and reach of our business and (v) the advisability and potential impact of selecting a different independent registered public accounting firm;
- pre-approving audit and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- overseeing the Company's internal audit coverage, including determining when an internal audit function should be adopted;
- reviewing and discussing with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending, based upon the Audit Committee's review and discussions with management and the Company's independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report;
- monitoring our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;

- preparing the Audit Committee report required by the rules of the SEC to be included in our annual proxy statement;
- viewing all related party transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing and discussing with management and our independent registered public accounting firm our earnings releases and scripts.

All audit and non-audit services to be provided to us by our independent registered public accounting firm must be approved in advance by the Audit Committee. During the year ended December 31, 2020, the Audit Committee met four times. The report of the Audit Committee is included in this Proxy Statement under "Audit Committee Report".

Compensation Committee

Our Compensation Committee is composed of Mr. Bate, Dr. Behbahani, and Dr. Schwab, with Mr. Bate serving as chair of the committee. The Board of Directors has determined, upon the recommendation of the Nominating and Corporate Governance Committee, that each member of the Compensation Committee is "independent" within the meaning of the rules and regulations of Nasdaq and the SEC. In addition, each member is a "non-employee director" within the meaning of the SEC rules. Our Compensation Committee operates pursuant to a written charter, and it reviews and assesses the adequacy of its charter periodically.

The Compensation Committee's responsibilities include:

- annually reviewing and recommending to the Board of Directors for approval the corporate performance goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate performance goals and objectives and recommending to the Board of Directors for approval the compensation of our Chief Executive Officer;
- reviewing and approving or recommending to the Board of Directors for approval the compensation of our other executive officers;
- appointing, compensating and overseeing the work of any compensation consultant, legal counsel or other advisor retained by the Compensation Committee;
- conducting the independence assessment outlined in Nasdaq rules with respect to any compensation consultant, legal counsel or other advisor retained by the Compensation Committee;
- annually reviewing and reassessing the adequacy of the committee charter in accordance with the listing requirements of Nasdaq;
- reviewing and establishing our overall management compensation philosophy and policy;
- overseeing and administering our equity compensation and other incentive compensation programs;
- reviewing and approving our equity and incentive policies and procedures for the grant of equity-based awards and approving the grant of such equity-based awards;
- reviewing and making recommendations to the Board of Directors with respect to director compensation; and
- if applicable, producing the compensation committee report to be included in our annual proxy statement and/or Annual Report.

During the year ended December 31, 2020, the Compensation Committee met four times.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee is composed of Ms. Bosley and Dr. Siber, with Ms. Bosley serving as chair of the committee. Our Board of Directors has determined that each member of the Nominating and Corporate Governance Committee is "independent" within the meaning of the rules and regulations of Nasdaq. Our Nominating and Corporate Governance Committee operates pursuant to a written charter, and it reviews and assesses the adequacy of its charter periodically.

The Nominating and Corporate Governance Committee's responsibilities include:

- developing and recommending to the Board of Directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating Board of Director candidates, including nominees recommended by stockholders;
- identifying individuals qualified to become members of the Board of Directors;
- recommending to the Board of Directors the persons to be nominated for election as directors and to each of the committees of the Board of Directors;
- developing and recommending to the Board of Directors a set of corporate governance principles;

- articulating to each director what is expected, including reference to the corporate governance principles and directors' duties and responsibilities;
- reviewing and recommending to the Board of Directors practices and policies with respect to directors;
- reviewing and recommending to the Board of Directors the functions, duties and compositions of the committees of the Board of Directors;
- reviewing and assessing the adequacy of the committee charter and submitting any changes to the Board of Directors for approval;
- considering and reporting to the Board of Directors any questions of possible conflicts of interest of Board of Directors members;
- providing for new director orientation and continuing education for existing directors on a periodic basis;
- performing an evaluation of the performance of the committee; and
- overseeing the evaluation of the Board of Directors and management.

The Nominating and Corporate Governance Committee does not set specific, minimum qualifications that nominees must meet in order to be recommended to the Board of Directors, but rather believes that each nominee should be evaluated based on his or her individual merits, taking into account the needs of Genocera and the composition of the Board of Directors. Additionally, neither the Nominating and Corporate Governance Committee nor the Board of Directors has a specific policy with regard to the consideration of diversity in identifying director nominees; however, both may consider the diversity of background and experience of a director nominee in the context of the overall composition of the Board of Directors at that time, such as diversity of knowledge, skills, experience, geographic location, age, gender, and ethnicity. Members of the Nominating and Corporate Governance Committee discuss and evaluate possible candidates in detail and suggest individuals to explore in more depth.

The Nominating and Corporate Governance Committee will consider Director candidates recommended by stockholders for inclusion on the slate of Directors recommended to the Board, provided that such recommendations are delivered to the Nominating and Corporate Governance Committee in the manner described below under "Stockholder Proposals and Nominations". At the time the stockholder submits the recommendation, the stockholder must provide the following:

- All information about the candidate that Genocera would be required to disclose in a proxy statement in accordance with Securities and Exchange Act rules or as required by the Company's bylaws.
- Consent of the candidate to serve on the Board of Directors, if nominated and elected.
- Agreement of the candidate to complete, upon request, questionnaire(s) customary for Genocera's Directors and to comply with applicable Company policies.

The Nominating and Corporate Governance Committee will consider nominations to the Board from stockholders who comply with the foregoing procedures using the same criteria that it applies to evaluate nominees recommended by other sources.

During the year ended December 31, 2020, the Nominating and Corporate Governance Committee met four times.

Board of Directors Performance Reviews

Our Corporate Governance Guidelines provide that the Nominating and Corporate Governance Committee is responsible for, at least annually, conducting a self-evaluation of the Board as a whole and for each Board committee. In addition, the written charters of the Audit Committee, Nominating and Governance Committee, and the Compensation Committee provide that each such committee will evaluate its performance annually using criteria that it has developed and will report to the Board on its findings. Such evaluations were conducted in 2020 by the Board and each of the committees.

Board of Directors Leadership Structure

Mr. Bate has served as the chair of our Board of Directors since December 2018. The independent members of the Board of Directors have periodically reviewed the Board of Directors' leadership structure and have determined that Genocera and our stockholders are well served with this structure.

The chair of the Board of Directors provides leadership to the Board of Directors and works with the Board of Directors to define its activities and the calendar for fulfillment of its responsibilities. The chair of the Board of Directors approves the meeting agendas after input from the Board of Directors and management, facilitates communication among directors and presides at meetings of our Board of Directors and stockholders.

The Board of Directors' Role in Risk Oversight

The Board of Directors plays an important role in risk oversight through direct decision-making authority with respect to significant matters as well as through the oversight of management by the Board of Directors and its committees. In particular, the Board of Directors administers its risk oversight function through (1) the review and discussion of regular periodic reports by the Board of Directors and its committees on topics relating to the risks that we face, (2) the required approval by the Board of Directors (or a committee of the Board of Directors) of significant transactions and other decisions, (3) the direct oversight of specific areas of our business by the Audit, Compensation, and Nominating and Corporate Governance Committees, and (4) regular periodic reports from our independent registered public accounting firm and other outside consultants regarding various areas of potential risk, including, among others, those relating to our internal control over financial reporting and executive compensation. The Board of Directors also relies on management to bring significant matters impacting our Company to the attention of the Board of Directors.

Pursuant to the Audit Committee's charter, the Audit Committee is responsible for reviewing and discussing with management and the independent registered public accounting firm our system of internal controls, our critical accounting practices, and policies relating to risk assessment and management. As part of this process, the Audit Committee discusses our major financial risk exposures and steps that management has taken to monitor and control such exposure. In addition, the Audit Committee has established procedures for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters, and the confidential, anonymous submissions by employees of concerns regarding questionable accounting or accounting matters.

Because of the role of the Board of Directors and the Audit Committee in risk oversight, the Board of Directors believes that any leadership structure that it adopts must allow it to effectively oversee the management of the risks relating to our operations. The Board of Directors acknowledges that there are different leadership structures that could allow it to effectively oversee the management of the risks relating to the Company's operations and believes its current leadership structure enables it to effectively provide oversight with respect to such risks.

Compensation Consultant

As a part of determining compensation for our named executive officers, the Compensation Committee engaged Pay Governance LLC ("Pay Governance") as its independent compensation consultant for 2020. As its independent compensation consultant, Pay Governance provided analysis and recommendations to the Compensation Committee regarding:

- trends with respect to executive and director compensation;
- the development of a peer group used for compensation-related purposes;
- forms and levels of compensation for executive officers and directors;
- stock utilization and related metrics;
- employment and separation agreements with our executive officers; and
- the risk profile of our compensation programs.

When requested, consultants from Pay Governance attended meetings of the Compensation Committee, including executive sessions in which executive compensation matters were discussed. During 2020, Pay Governance reported to the Compensation Committee and not to management, although Pay Governance met with management for purposes of gathering information for its analyses and recommendations.

Although the Board of Directors and the Compensation Committee considers the advice and recommendations of Pay Governance (or any other compensation consultant it might engage in the future) as related to our executive compensation program, the Board of Directors and the Compensation Committee ultimately make their own decisions about the compensation arrangements for our executive officers.

In determining whether to engage Pay Governance, the Compensation Committee considered the independence of Pay Governance, taking into consideration relevant factors, including the absence of other services provided to the Company by Pay Governance, the amount of fees the Company paid to Pay Governance as a percentage of Pay Governance's total revenues, the policies and procedures of Pay Governance that are designed to prevent conflicts of interest, any business or personal relationship of the individual compensation advisors employed by Pay Governance with any executive officer of the Company, any business or personal relationship of the individual compensation advisors employed by Pay Governance with any member of the Compensation Committee, and any stock of the Company owned by Pay Governance or the individual compensation advisors employed by Pay Governance (the "Independence Factors"). The Compensation Committee has determined, based on its analysis in light of all relevant factors, including the Independence Factors listed above, that the work of Pay Governance and the individual compensation advisors employed by Pay Governance as compensation consultants to the Compensation Committee did not create any conflicts of interest, and that Pay Governance was independent under the independence standards set forth in the Nasdaq listing standards promulgated pursuant to Section 10C of the Exchange Act.

Non-Employee Director Compensation Policy

Our Board of Directors adopted a non-employee director compensation policy that is designed to enable us to attract and retain, on a long-term basis, highly-qualified non-employee directors. Under the policy, as it may be amended from time to time, all non-employee directors will be paid cash compensation as set forth in the table below. Cash fees are prorated for partial years of service. In addition, we reimburse our non-employee directors for reasonable travel expenses in connection with their service.

Cash compensation for our non-employee directors consists of the following components:

	Annual Cash Fees
Board of Directors:	
All non-employee members	\$ 35,000
Additional retainer for chair	\$ 40,000
Audit Committee:	
Members	\$ 7,500
Additional retainer for chair	\$ 7,500
Compensation Committee:	
Members	\$ 5,000
Additional retainer for chair	\$ 5,000
Nominating and Corporate Governance Committee:	
Members	\$ 3,500
Additional retainer for chair	\$ 3,500

Under our non-employee director compensation policy, which was updated in March 2020 as described below, each non-employee director who is initially appointed or elected to our Board of Directors is eligible to be granted options to purchase 30,000 shares of our common stock under the Genocera Biosciences Inc. Amended and Restated 2014 Equity Incentive Plan ("2014 Equity Plan") at the time of his or her initial appointment or election to our Board of Directors. These options vest annually in equal installments over a three-year period, generally subject to the non-employee director's continued service. In addition, each continuing non-employee director is eligible to be granted options to purchase 15,000 shares of our common stock under our 2014 Equity Plan on an annual basis, which vest in full on the first anniversary of the grant date, generally subject to the non-employee director's continued service through such date. These annual option grants are made on the date of the Company's annual meeting of stockholders for the relevant year or as soon thereafter as is reasonably practicable. In 2019, the Company effected a reverse stock split of its common stock at a ratio of one-for-eight which also reduced the initial and annual option grants to non-employee directors by the same ratio. In March 2020, following consultation with Pay Governance and a review of non-employee director compensation programs at companies in our peer group described below in the "Executive Compensation" section, our Compensation Committee recommended, and our Board of Directors approved, an update to our non-employee director compensation policy, which increased the number of shares subject to the initial option to be granted to non-employee directors from 9,375 shares to 30,000 shares and increased the number of shares subject to annual options to be granted to non-employee directors from 5,625 shares to 15,000 shares. Our Compensation Committee and Board of Directors believe that these increases more closely align the equity compensation component of our non-employee director compensation program with the market and will help us attract and retain talented individuals to serve on our Board of Directors.

Director Compensation

All of our non-employee directors were compensated for service on our Board of Directors under our non-employee director compensation policy described above. Mr. Clark receives no additional compensation for his service as a director, and, consequently, is not included in this table. The compensation received by Mr. Clark as our President and Chief Executive Officer for 2020 is set forth in the "Summary Compensation Table" under the section "Executive Compensation".

The following table sets forth information concerning the compensation earned by our non-employee directors during 2020.

Name	Fees earned or paid in cash (\$) ⁽¹⁾	Option awards (\$) ⁽²⁾⁽³⁾	Total (\$)
Kenneth Bate	93,787	26,474	120,261
Ali Behbahani, M.D.	40,763	26,474	67,237
Katrine Bosley	42,000	26,474	68,474
Ronald Cooper	46,000	26,474	72,474
Michael Higgins	50,000	26,474	76,474
Howard Mayer, M.D. ⁽⁴⁾	23,274	26,474	49,748
Gisela Schwab, M.D.	36,356	16,066	52,422
George Siber, M.D.	39,240	26,474	65,714

- (1) Amounts represent annual director fees for services rendered, as described above. All director fees were paid quarterly in arrears.
- (2) As of December 31, 2020, our directors held the following aggregate number of options to purchase shares of our common stock: Mr. Bate held options to purchase 31,892 shares of our common stock, Dr. Behbahani held options to purchase 30,000 shares of our common stock, Ms. Bosley held options to purchase 35,252 shares of our common stock, Mr. Cooper held options to purchase 31,250 shares of our common stock, Mr. Higgins held options to purchase 31,261 shares of our common stock, Dr. Schwab held options to purchase 9,375 shares of our common stock, and Dr. Siber held options to purchase 39,293 shares of our common stock.
- (3) Amounts in the table represent the aggregate grant date fair value of options to purchase shares of our common stock granted during 2020, computed in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 718, excluding the effect of estimated forfeitures. Assumptions used in the calculation of these amounts are included in Note 11 to our consolidated financial statements included in our Annual Report. Dr. Schwab was granted options to purchase 9,375 shares of our common stock in 2020, which vest annually in equal installments over a three-year period, generally subject to her continued service. All of other our non-employee directors were granted options to purchase 15,000 shares of our common stock in 2020, which options will vest in full on the one-year anniversary of their respective date of grant, generally subject to their continued service.
- (4) Dr. Mayer resigned from the Board of Directors effective August 3, 2020.

AUDIT COMMITTEE REPORT

The Audit Committee reviewed the Company's audited financial statements for the year ended December 31, 2020 and discussed these statements with management and Ernst & Young LLP ("EY"), the Company's independent registered public accounting firm. Genocoe's management is responsible for the preparation of the Company's financial statements and for maintaining an adequate system of disclosure controls and procedures and internal control over financial reporting for that purpose. EY is responsible for expressing an opinion on the conformity of the audited financial statements with generally accepted accounting principles, discussing their judgments as to the quality, not just the acceptability, of the Company's accounting principles and such other matters as are required to be discussed with the Audit Committee under generally accepted auditing standards. The Audit Committee is responsible for providing independent, objective oversight of the Company's accounting functions and internal controls.

The Audit Committee also discussed with EY all matters required to be communicated under the standards of the Public Company Accounting Oversight Board (the "PCAOB") and the SEC.

EY also provided the Audit Committee with the written disclosures and the letter required under the PCAOB's ethics and independence rule, which requires that independent registered public accounting firms annually disclose in writing all relationships that in their professional opinion may reasonably be thought to bear on independence, to confirm their perceived independence and engage in a discussion of independence. The Audit Committee reviewed this disclosure and discussed with EY their independence from Genocoe.

Based on its discussions with management and our independent registered public accounting firm, and its review of the representations and information provided by management and our independent registered public accounting firm, the Audit Committee recommended to the Board of Directors that the audited financial statements be included in Genocoe's Annual Report on Form 10-K for the year ended December 31, 2020, for filing with the SEC.

Respectfully submitted by the
Audit Committee,

Michael Higgins, Chair
Kenneth Bate
Katrine Bosley

PROPOSAL NO. 2—TO APPROVE, ON AN ADVISORY BASIS, OF THE COMPENSATION PAID TO OUR NAMED EXECUTIVE OFFICERS

We are seeking your advisory vote, as required by Section 14A of the Exchange Act, to approve the compensation paid to our named executive officers for 2020, as described in the “Executive Compensation” section of this proxy statement. Because your vote is advisory, it will not be binding on our Compensation Committee or our Board of Directors. However, our Compensation Committee and our Board of Directors will review the voting results and take them into consideration when making future decisions regarding executive compensation.

The Board of Directors unanimously recommends that stockholders vote in favor of the following resolution:

“RESOLVED, that the compensation paid to the named executive officers of Genocea Biosciences, Inc., as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Summary Compensation Table and the related narrative disclosure included the “Executive Compensation” section of this proxy statement, is hereby APPROVED.”

Vote Required

Although the vote we are asking you to cast is non-binding, our Compensation Committee and our Board of Directors value the views of our stockholders and will consider the outcome of the vote when determining future compensation arrangements for our named executive officers. The resolution will be approved, on an advisory basis, if the votes cast FOR exceed the votes cast AGAINST the proposal. Abstentions and broker non-votes will have no effect on the voting of this proposal. We expect to hold an advisory vote to approve the compensation of our named executive officers annually until the next vote on the advisory frequency of such advisory votes, which will occur no later than our 2026 annual meeting of stockholders.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE
FOR
THE APPROVAL, ON AN ADVISORY BASIS, OF THE COMPENSATION PAID TO OUR NAMED EXECUTIVE OFFICERS
(PROPOSAL 2 ON YOUR PROXY CARD)**

EXECUTIVE COMPENSATION

This section describes the compensation awarded or paid to, or earned by, our named executive officers for 2020. Our named executive officers for 2020 are:

- William Clark, our President and Chief Executive Officer;
- Girish Aakalu, Ph.D., our Chief Business Officer; and
- Thomas Davis, M.D., our Chief Medical Officer.

Compensation Philosophy and Objectives

Our executive compensation program is designed to:

- attract, motivate and retain qualified and talented executives;
- be fair, reasonable and market-competitive;
- reward strong performance by linking performance and pay;
- be flexible to support our long-term growth strategy;
- align the incentives of our executive officers with our corporate strategies and business objectives and the long-term interests of our stockholders; and
- promote long-term equity ownership by our executives.

To achieve these objectives, each year, our Compensation Committee considers a variety of factors in assessing the competitiveness of our executive compensation program and the individual compensation of each of our executive officers, including our named executive officers. These factors include the executive officer's experience and individual performance, the Company's performance as a whole, and data from compensation surveys, as well as compensation paid at companies in our peer group, as described below, cost of living increases and general industry conditions. Our Compensation Committee does not assign any specific weighting to any one factor when making compensation decisions. In furtherance of our pay-for-performance philosophy, actual compensation paid to our executive officers is correlated to the achievement of corporate performance goals, our stock price and individual performance.

Market Benchmarks and Competitive Analysis

In making compensation decisions, our Compensation Committee reviews publicly available compensation data and survey data provided by its compensation consultant, Pay Governance, from a group of publicly traded, national and regional companies in the biopharmaceutical and biotechnology industries. Our Compensation Committee establishes our peer group, based on the recommendation of its compensation consultant and the following criteria:

- companies whose scientific stage of development (R&D expense) and market capitalization are similar, though not necessarily identical, to ours;
- companies with similar executive positions to ours;
- companies against which we believe we compete for executive talent; and
- public companies based in the United States whose compensation and financial data are available in proxy statements or through widely available compensation surveys.

Our Compensation Committee, working with its compensation consultant, reviews the companies in our peer group annually, based on agreed criteria regarding which companies should be included in the peer group, and makes adjustments as necessary to ensure the peer group continues to properly reflect the market in which we compete for talented executives.

The peer group consisted of the following companies from November 2019 until November 2020. This peer group was used for purposes of 2020 compensation decisions.

Advaxis, Inc.	Infinity Pharmaceuticals, Inc.
aTyrPharma, Inc.	Jounce Therapeutics, Inc.
Calithera Biosciences, Inc.	Leap Therapeutics, Inc.
Catabasis Pharmaceuticals, Inc.	Mersana Therapeutics, Inc.
Celldex Therapeutics, Inc.	Neon Therapeutics, Inc.
Cidara Therapeutics, Inc.	OncoSec Medical Incorporated
Cue Biopharma, Inc.	Pieris Pharmaceuticals, Inc.
Gritstone Oncology, Inc.	Spring Bank Pharmaceuticals
Idera Pharmaceuticals, Inc.	Surface Oncology, Inc.

Based on the criteria listed above, in November 2020, our Compensation Committee approved an updated peer group for purposes of 2021 compensation decisions consisting of the following companies:

Calithera Biosciences, Inc.	Jounce Therapeutics, Inc.
Catabasis Pharmaceuticals, Inc.	Kezar Life Sciences, Inc.
Celldex Therapeutics, Inc.	Leap Therapeutics, Inc.
Cidara Therapeutics, Inc.	Marker Therapeutics, Inc.
Cue Biopharma, Inc.	Mersana Therapeutics, Inc.
Gritstone Oncology, Inc.	OncoSec Medical Incorporated
Harpoon Therapeutics, Inc.	Pieris Pharmaceuticals, Inc.
Idera Pharmaceuticals, Inc.	Spring Bank Pharmaceuticals
Infinity Pharmaceuticals, Inc.	Surface Oncology, Inc.

Certain companies were added to or removed from our peer group in November 2020 based on the criteria listed above or due to acquisitions.

We believe that the data from our peer group provides us with appropriate compensation benchmarks for evaluating the compensation of our executive officers. Notwithstanding the similarities of the companies in our Peer Group to us, due to the nature of our business, we compete for executive talent with many public companies that are larger and more established than we are, or that possess greater resources than we do, and with smaller private companies that may be able to offer greater equity compensation potential, as well as with prestigious academic and non-profit institutions. Our Compensation Committee takes these factors into account in assessing executive compensation and also reviews survey data to form a broader market perspective on compensation in the market.

Our Compensation Committee evaluates our executive compensation program with the goal of setting total compensation at levels that align with a total rewards strategy appropriate for our size and stage of development and achieve the objectives of our executive compensation program, as described above. Our Compensation Committee generally targets base salaries, annual bonuses, and annual equity awards for our executive officers around the market median for our peer group, with variability in actual payments based on corporate and individual performance. Our Compensation Committee may consider other factors, including market factors; the experience level of the executive; his or her total responsibilities; the executive's contributions in helping to achieve established corporate performance goals; and overall contributions and performance, in determining variations to this general practice in making recommendations to our Board of Directors.

Key Performance Factors in Determining Executive Compensation

Because the biopharmaceutical industry is characterized by a very long product development cycle, including a lengthy R&D period and a rigorous regulatory approval process, including the requirements for multiple phases of human testing and the need to meet a significant number of other government requirements, many of the traditional financial performance metrics, such as product sales, revenues and profits, used to evaluate successful performance are inappropriate for a biopharmaceutical company with a continued development focus, such as Genocera. Instead, the specific performance our Compensation Committee considers when evaluating the compensation of our named executive officers include:

- key R&D achievements
- initiation and progress of clinical trials for our product candidates;
- expansion of our manufacturing and other operating capabilities;
- achievement of regulatory milestones;

- new business initiatives including financings; and
- our progress in building out key functions and managing our growth while maintaining a high-performing organization and culture.

Annual corporate performance goals are proposed by our senior leadership team at the beginning of each year and approved by our Board of Directors. During the first quarter of each year, our Compensation Committee, with the input of the senior leadership team, evaluates our corporate performance for the prior year against the corporate performance goals set for that year, and, taking into account other corporate achievements and developments, recommends a corporate performance rating to be approved by our Board of Directors. For 2020, our Compensation Committee approved a corporate performance rating of 95% based on our corporate performance, as further described below under "Elements of Executive Compensation - Annual Cash Bonuses". Our Compensation Committee, with the input of our Chief Executive Officer, also evaluates the individual performance of our executive officers (other than our Chief Executive Officer) against their individual goals for the year. For 2020, the Compensation Committee approved individual performance ratings ranging from 90% to 115% for our executive officers. Our Compensation Committee and our Board of Directors also evaluate the performance of our Chief Executive Officer each year, although 100% of his annual bonus is based on the achievement of our corporate performance goals.

During or before the first quarter of each year, our Compensation Committee typically evaluates compensation levels for such year for our executive officers, including the amount of each executive officer's base salary, target annual bonus and annual equity awards, taking into consideration the compensation paid by members of our peer group, our prior year's overall corporate performance against the established corporate performance goals, as well as each individual executive officer's contributions to achievement of such corporate performance goals, individual performance and the other factors described above, in making compensation recommendations to our Board of Directors. Our Board of Directors considers these recommendations in determining the compensation for our executive officers for the applicable year.

Elements of Executive Compensation

The compensation of our named executive officers consists of base salary, annual cash bonuses and equity awards, as well as employee benefits that are made available to our salaried employees generally. Our named executives are also entitled to compensation and benefits upon termination of employment in certain circumstances, including following a change of control transaction, as described under "Employment Letter Agreements" below.

Base Salaries. Base salaries for our named executive officers are reviewed annually by our Compensation Committee and are set by our Board of Directors. When making its base salary recommendations to our Board of Directors, our Compensation Committee takes the factors described above into account, but does not assign any specific weighting to any one factor. Our Board of Directors determines each named executive officer's base salary after reviewing the Compensation Committee's recommendation with respect to such salaries. In 2020, on the recommendation of our Compensation Committee, our Board of Directors approved an increase of 3.5% to the base salary of Mr. Clark (to \$554,360 per year), Dr. Davis (to \$455,275 per year) and Dr. Aakalu (to \$398,475 per year).

Annual Cash Bonuses. Our annual cash bonus program promotes and rewards the achievement of key strategic business goals and individual performance goals. For 2020, the target annual bonus as a percentage of annual base salary was 50% for Mr. Clark and 40% for each of Dr. Aakalu and Dr. Davis. In the case of Mr. Clark, 100% of his annual bonus was based on the achievement of pre-established corporate performance goals and, in the case of Dr. Aakalu and Dr. Davis, their respective annual bonuses were based on the achievement of pre-established corporate performance goals and pre-established individual performance goals.

At the beginning of 2020, our Compensation Committee established the corporate performance goals for 2020 and the weighting for each goal. These corporate performance goals included key strategic and financial goals related to business development collaborations and financings, cash management, the development and commencement of certain clinical and commercial programs, and other strategic objectives related to our clinical pipeline. Also, at the beginning of 2020, Mr. Clark, working with Dr. Aakalu and Dr. Davis, established individual performance goals for each of Dr. Aakalu and Dr. Davis and their weightings. These goals included, to the extent applicable to the executive, objectives related to oversight of clinical activities for compliance with laws, developing and conducting clinical programs and studies, research and development, managing studies according to schedule and within budgets, business and corporate development and demonstrating leadership with respect to direct reports.

In February 2021, our Compensation Committee met to review and consider the level of corporate and individual performance goals that were achieved for purposes of making its recommendation to our Board of Directors regarding the amount of the annual cash bonus earned by our named executive officers for 2020. The Compensation Committee reviewed and evaluated our corporate performance against the pre-established corporate performance goals for 2020, taking into consideration Mr. Clark's evaluation of our performance. With respect to the individual performance goals applicable to Dr. Aakalu and Dr. Davis, our Compensation Committee also considered Mr. Clark's determination that Dr. Aakalu had achieved 90% and Dr. Davis had achieved 100% of such individual performance goals. After reviewing the achievement of our 2020 corporate performance goals, and after considering Mr. Clark's determination regarding the level of achievement of the individual performance goals for Dr. Aakalu and Dr. Davis, our Compensation Committee recommended, and our Board of Directors approved, a 95% level of achievement of corporate performance goals, a 90% level of achievement by Dr. Aakalu of his individual performance goals and a 100% level of achievement by Dr. Davis of his individual performance goals. As a result, our Board of Directors approved an annual cash bonus of \$263,321 for Mr. Clark, \$136,278 for Dr. Aakalu, and \$173,005 for Dr. Davis for 2020.

Equity Awards. Our named executive officers have each been granted stock options, including options intended to qualify as incentive stock options. Stock option awards serve to align the interests of our named executive officers with our stockholders because no value is created unless the value of our common stock appreciates after grant. Stock option awards also encourage retention through the use of time-based vesting conditions. In addition, in 2020, we granted each of our named executive officers restricted stock units ("RSUs"), which also encourage retention, build stock ownership and further serve to align the interests of our named executive officers with our shareholders because the ultimate value of the RSUs depends on our common stock price performance. We have from time to time in the past also granted stock options that are subject to performance-based vesting conditions, thereby incentivizing the achievement of key strategic goals.

In 2020, Mr. Clark, Dr. Aakalu and Dr. Davis were each granted options to purchase 294,188, 71,251, and 71,251 shares, respectively, of our common stock under our 2014 Equity Plan. These stock options vest in equal monthly installments over the 48 months following the date of grant, generally subject to the executive's continued employment. In addition, Mr. Clark, Dr. Aakalu and Dr. Davis were each granted RSUs under our 2014 Equity Plan that represent the right to receive, at settlement, 78,127, 18,922, and 18,922 shares, respectively, of our common stock. These RSUs vest in equal annual installments over the 4 years following the date of grant, generally subject to the executive's continued employment. These stock options and RSUs were granted in two installments because, prior to the approval of an amendment to our 2014 Equity Plan to increase the number of shares available thereunder at our 2020 annual meeting, there were insufficient shares available under our 2014 Equity Plan for both awards to be granted. Pursuant to each named executive officer's employment letter agreement, stock options and RSUs held by the executive will vest automatically upon a termination of employment in certain circumstances following a change of control. See "Employment Letter Agreements" below for additional details about each individual's agreement.

Employment Letter Agreements. We have entered into employment letter agreements with Mr. Clark, Dr. Aakalu and Dr. Davis that include severance and change of control protections. Mr. Clark and Dr. Davis are also subject to restrictive covenants covering noncompetition, non-solicitation and confidentiality. See "Employment Letter Agreements" below for additional details about these agreements.

Summary Compensation Table

The following table sets forth information about compensation earned, awarded or paid to our named executive officers for 2020 and 2019.

Name and principal position	Year	Salary (\$)	Bonus (\$) ⁽¹⁾	Stock Awards (\$) ⁽²⁾	Option Awards (\$) ⁽³⁾	Nonequity incentive plan compensation (\$) ⁽⁴⁾	All other compensation (\$) ⁽⁵⁾	Total (\$)
William Clark, President and Chief Executive Officer	2020	551,235	—	158,675	481,254	263,321	6,836	1,461,321
	2019	532,594	—	—	282,272	241,695	6,435	1,062,996
Girish Aakalu, Ph.D., Chief Business Officer	2020	396,229	—	38,431	115,790	136,278	3,917	690,645
	2019	385,000	150,000	—	112,908	146,300	3,850	798,058
Thomas Davis, M.D., Chief Medical Officer	2020	452,708	—	38,431	115,790	173,005	6,007	785,941
	2019	437,396	—	—	112,908	167,153	32,201	749,658

(1) The amount shown reflects a signing bonus paid to Dr. Aakalu in 2019 in connection with his commencement of employment with us in December 2018.

(2) Amounts shown reflect the aggregate grant date fair value of RSUs granted in the applicable year, computed in accordance with FASB ASC Topic 718, excluding the effect of estimated forfeitures. The fair value of the RSUs is the closing market price of Genoccea's common stock on the grant date.

- (3) Amounts shown reflect the aggregate grant date fair value of stock options granted in the applicable year, computed in accordance with FASB ASC Topic 718, excluding the effect of estimated forfeitures. Assumptions used in the calculation of these amounts are included in Note 11 to our consolidated financial statements included in our Annual Report.
- (4) Amounts shown for Dr. Aakalu and Dr. Davis reflect the annual cash bonuses that were earned in the applicable year based on the achievement of corporate and individual performance goals, and, in the case of Mr. Clark, the amounts shown reflect the annual cash bonuses that were earned in the applicable year based solely on the achievement of corporate performance goals.
- (5) Amounts shown reflect employer matching contributions under our 401(k) plan for all of our named executive officers. For Dr. Davis, the 2019 amount shown also includes a 10-month housing reimbursement of \$26,430.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding option awards held by our named executive officers as of December 31, 2020.

Name	Option Awards			
	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option Exercise Price (\$) ⁽⁴⁾	Option Expiration Date ⁽⁵⁾
William Clark	42,571 ⁽¹⁾	—	16.16	2/17/2021
	10,209 ⁽²⁾	—	27.60	7/25/2023
	16,701 ⁽³⁾	—	27.60	7/25/2023
	17,250 ⁽¹⁾	—	72.64	2/26/2025
	36,000 ⁽¹⁾	—	24.72	2/2/2026
	34,500 ⁽¹⁾	1,500 ⁽¹⁾	37.36	2/28/2027
	76,489 ⁽¹⁾	31,511 ⁽¹⁾	7.84	2/8/2028
	41,091 ⁽¹⁾	50,784 ⁽¹⁾	4.32	2/7/2029
	31,248 ⁽¹⁾	156,252 ⁽¹⁾	1.66	4/2/2030
Tom Davis, M.D.	15,554 ⁽¹⁾	91,134 ⁽¹⁾	2.72	6/1/2030
	33,854 ⁽²⁾	28,646 ⁽²⁾	6.32	10/1/2028
	17,182 ⁽¹⁾	20,318 ⁽¹⁾	4.32	2/7/2029
	7,713 ⁽¹⁾	38,600 ⁽¹⁾	1.66	4/2/2030
Girish Aakalu, Ph.D.	3,633 ⁽¹⁾	21,305 ⁽¹⁾	2.72	6/1/2030
	40,624 ⁽²⁾	40,626 ⁽²⁾	4.48	12/13/2028
	17,182 ⁽¹⁾	20,318 ⁽¹⁾	4.32	2/7/2029
	7,713 ⁽¹⁾	38,600 ⁽¹⁾	1.66	4/2/2030
	3,633 ⁽¹⁾	21,305 ⁽¹⁾	2.72	6/1/2030

- (1) Reflects time-based options to purchase shares of our common stock that vest in 48 equal monthly installments following the date of grant, generally subject to the executive's continued employment.
- (2) Reflects time-based options to purchase shares of our common stock that vest as to 25% of the shares subject to the stock option on the vesting commencement date (approximately 12 months from the grant date) and thereafter vest in equal monthly installments over the following 36 months, generally subject to the executive's continued employment.
- (3) Reflects time-based options to purchase shares of our common stock that vested as to 1/8th of the shares subject to the stock option on the date of grant and that continue to vest in equal monthly installments over 42 months following the date of grant, generally subject to the executive's continued employment.
- (4) The exercise price of each option is not less than the fair market value of a share of our common stock on the date of grant, as determined by our Board of Directors. For stock options granted following our IPO, the exercise price is the closing price of a share of our common stock as reported on Nasdaq on the date of grant of the stock option.
- (5) All options have a 10-year term measured from the date of grant.

The following table sets forth information regarding outstanding stock awards held by our named executive officers as of December 31, 2020.

Name	Stock Awards	
	Number of shares or units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (\$) ⁽³⁾
William Clark	50,783 ⁽¹⁾	122,895
	27,344 ⁽²⁾	66,172
Tom Davis, M.D.	12,299 ⁽¹⁾	29,764
	6,623 ⁽²⁾	16,028
Girish Aakalu, Ph.D.	12,299 ⁽¹⁾	29,764
	6,623 ⁽²⁾	16,028

- (1) Reflects time-based RSUs granted on April 2, 2020 that vest in 4 equal annual installments following the date of grant, generally subject to the executive's continued employment.
- (2) Reflects time-based RSUs granted on June 1, 2020 that vest in 4 equal annual installments following the date of grant, generally subject to the executive's continued employment.
- (3) The value of unvested restricted stock units was calculated by multiplying the closing price of our common stock on December 31, 2020 (\$2.42) by the number of unvested restricted stock units.

Retirement Benefits

We do not maintain any qualified or non-qualified defined benefit plans or supplemental executive retirement plans. We offer a tax-qualified defined contribution retirement plan, which we refer to as our 401(k) plan, to eligible employees, including our named executive officers. Our 401(k) plan permits eligible employees to defer their annual eligible compensation subject to the limitations imposed by the Internal Revenue Service. We may, but are not required to, make discretionary profit-sharing contributions on behalf of eligible employees under this plan. In 2015, we commenced making an employer match of 50% for the first 6% of employee contributions and have continued to do so. Employer matching contributions vest over a four-year period starting with the employee's date of hire.

Employment Letter Agreements

We have entered into an employment letter agreement with each of Mr. Clark, which was amended and restated on January 16, 2014 and became effective prior to our IPO, Dr. Aakalu, which became effective on December 6, 2018, his date of hire, and Dr. Davis, which became effective on October 1, 2018, his date of hire. Each named executive officer's employment letter agreement provides for an initial base salary and target annual bonus as well as severance payments and benefits upon a termination of employment in certain circumstances, as described below. The terms "change of control," "cause," "good reason" and "disability" referred to below are defined in their employment letter agreements.

Termination of Employment without Cause or for Good Reason Following a Change of Control. If, within 12 months after a change of control, Mr. Clark, Dr. Aakalu or Dr. Davis' employment is terminated by us without cause or the executive terminates his employment for good reason, all stock options, RSUs and other equity awards then held by the executive will fully vest. In addition, Mr. Clark, Dr. Aakalu and Dr. Davis will be entitled to receive base salary and payment of COBRA premiums for 15 months (or 18 months, for Mr. Clark) following such termination of employment.

Termination of Employment without Cause or for Good Reason. If Mr. Clark, Dr. Aakalu or Dr. Davis' employment is terminated by us without cause or the executive terminates his employment for good reason other than within 12 months following a change of control as described above, the executive will be entitled to receive base salary and payment of COBRA premiums for 9 months, (or 12 months, for Mr. Clark) following such termination of employment.

Termination of Employment Due to Death or Disability. If Mr. Clark, Dr. Aakalu or Dr. Davis' employment is terminated by us due to disability or death, the executive (or, if applicable, his estate) will receive a portion of his target annual cash bonus for the year in which such termination of employment occurs, prorated based on the number of days that each individual was employed during such year prior to the date of such termination.

Severance Subject to Release of Claims. Our obligation to provide Mr. Clark, Dr. Aakalu and Dr. Davis with any severance payments or other benefits under their employment letter agreement is conditioned on each executive signing and not revoking an effective release of claims in our favor.

Other Termination of Employment. If Mr. Clark, Dr. Aakalu or Dr. Davis' employment is terminated for any reason other than by us without cause, by any of the executives for good reason, or due to the executive's death or disability, the executive will only be entitled to receive earned but unpaid base salary through the date of such termination of employment.

280G Better-of Provision. In the event of a change in ownership or control of our Company under Section 280G of the Internal Revenue Code of 1986, as amended (the "Code"), and the regulations thereunder, if any portion of the payments made pursuant to Mr. Clark, Dr. Aakalu or Dr. Davis' employment letter agreement (or otherwise) constitute an "excess parachute payment" within the meaning of Section 280G of the Code, each executive, as applicable, will be entitled to receive an amount of such payments reduced so that no portion of the payments would constitute an excess parachute payment, or the amount otherwise payable to the executive under the employment letter agreement (or otherwise) reduced by all applicable taxes, including the excise tax imposed under Section 4999 of the Code, whichever amount results in the greater amount payable to each individual on an after-tax basis.

As a condition to their employment with us, each of our named executive officers was required to sign and must comply with the terms of a Confidential Information and Invention Assignment Agreement, and in the case of Mr. Clark and Dr. Davis, an At-Will Employment and Non-Competition Agreement pursuant to which he has agreed not to compete with us for a period of 12 months following the termination of his employment and not to solicit our employees or independent contractors for a period of 36 months following the termination of his employment. Each executive has also agreed to covenants relating to the use and disclosure of confidential information and the assignment of inventions.

Hedging Policy. In accordance with the Company's Insider Trading Policy, the Company prohibits directors, officers, and employees of the Company from engaging in hedging transactions in the Company's securities, including equity swaps and collars, prepaid forward contracts, and similar devices.

PROPOSAL NO. 3—TO APPROVE THE AMENDMENT TO GENOCEA’S RESTATED CERTIFICATE OF INCORPORATION TO PROVIDE THAT THE COURTS LOCATED WITHIN THE STATE OF DELAWARE WILL SERVE AS THE EXCLUSIVE FORUM FOR THE ADJUDICATION OF CERTAIN LEGAL DISPUTES

Currently, our restated certificate of incorporation does not include a federal forum selection provision. In response to a decision of the Delaware Supreme Court validating federal forum selection provisions, our Board of Directors reviewed the current exclusive jurisdiction provision in the Company’s restated certificate of incorporation from a legal and policy perspective, and determined that it is in the best interests of Genoccea and its stockholders to include a federal forum selection provision in the Company’s restated certificate of incorporation.

The Company is seeking stockholder approval to amend its restated certificate of incorporation to provide that, unless the Company consents in writing to the selection of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any claim arising under the Securities Act of 1933, as amended.

Effect of the Amendment

Currently, stockholders may file claims against the Company arising under the Securities Act of 1933, as amended, in both state courts and federal district courts. If adopted, the proposed amendment to the restated certificate of incorporation would require stockholder plaintiffs asserting claims against the Company under the Securities Act of 1933, as amended, to file those claims in the federal district courts of the United States. It is the Company’s view that this proposed amendment would confer a number of benefits to the Company and its stockholders, including, without limitation (i) avoiding the possibility that the Company might have to simultaneously defend claims arising under the Securities Act of 1933 in multiple jurisdictions, which would create inefficiencies, excessive cost and the risk of inconsistent rulings between parallel litigations concerning the same claims and underlying subject matter; and (ii) ensuring that claims against the Company arising under the Securities Act of 1933 will be heard by courts with extensive experience adjudicating claims asserted under the United States securities laws.

Given these considerations, our Board of Directors has determined that it is in the best interests of the Company and its stockholders that our restated certificate of incorporation be amended to include a federal forum selection provision.

Language of the Propose Amendment

If approved, the amendment would enable us to amend Article IX of our restated certificate of incorporation to read as follows:

“ARTICLE IX – EXCLUSIVE JURISDICTION FOR CERTAIN ACTIONS

- (a) Exclusive Forum. Unless the Board of Directors otherwise approves, in accordance with Section 141 of the DGCL, this Certificate of Incorporation and the bylaws of the Corporation, the selection of an alternate forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the Superior Court of the State of Delaware or, if the Superior Court of the State of Delaware also does not have jurisdiction, the United States District Court for the District of Delaware) shall, to the fullest extent permitted by applicable law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation’s stockholders, (iii) any action asserting a claim against the Corporation arising pursuant to any provision of the DGCL, this Certificate of Incorporation or the bylaws of the Corporation, or (iv) any action asserting a claim against the Corporation governed by the internal affairs doctrine (each a “Covered Corporate Proceeding”). Unless the Board of Directors consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended (each a “Covered Securities Proceeding” and together with Covered Corporate Proceeding, the “Covered Proceeding”).
- (b) Personal Jurisdiction. If any action the subject matter of which is a Covered Corporate Proceeding is filed in a court other than the Court of Chancery of the State of Delaware, or, where permitted in accordance with paragraph (a) above, the Superior Court of the State of Delaware or the United States District Court for the District of Delaware (each, a “Foreign Corporate Action”), in the name of any person or entity (a “Claiming Party”) without the prior approval of the Board of Directors or one of its committees in the manner described in paragraph (a) above, such Claiming Party shall be deemed to have consented to (i) the personal jurisdiction of the Court of Chancery of the State of Delaware or, where applicable, the Superior Court of the State of Delaware and the United States District Court for the District of Delaware, in connection with any action brought in any such courts to enforce paragraph (a) above (an “Enforcement Action”) and (ii) having service of process made upon such Claiming Party in any such Enforcement Action by service upon such Claiming Party’s counsel in the Foreign Corporate Action as agent for such Claiming Party. If any action the subject matter of which is a Covered Securities Proceeding is filed in a court other than a federal district court of the United States of America (each, a “Foreign Securities Action”), in the name of a Claiming Party without the prior consent of the Board of Directors or one of its committees in the manner described in paragraph (a) above, such Claiming Party shall be deemed to have consented to (i) the personal jurisdiction of the federal district court of the United States of America, in connection with any Enforcement Action and (ii) having service of process made upon such Claiming Party in any such Enforcement Action by service upon such Claiming Party’s counsel in the Foreign Securities Action as agent for such Claiming Party.

(c) Notice and Consent. Any person or entity purchasing or otherwise acquiring any interest in the shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article IX and waived any argument relating to the inconvenience of the forums referenced above in connection with any Covered Proceeding.”

No Appraisal Rights

Under Delaware law, the Company’s stockholders are not entitled to appraisal rights with respect to the proposed amendment to the restated certificate of incorporation to add the exclusive forum provision, and the Company will not independently provide stockholders with any such rights.

Vote Required

The approval of the amendment designating the courts located within the state of Delaware, to the fullest extent permitted by applicable law, as the sole and exclusive forum for specified legal actions unless otherwise consented to by the Company, as reflected in the amendment, requires the affirmative vote of a majority of the outstanding shares of the common stock.

Abstentions and broker non-votes will have the same effect as a vote against this proposal.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE
FOR**

**THE AMENDMENT TO GENOCEA’S RESTATED CERTIFICATE OF INCORPORATION TO PROVIDE THAT THE COURTS LOCATED
WITHIN THE STATE OF DELAWARE WILL SERVE AS THE EXCLUSIVE FORUM FOR THE ADJUDICATION OF CERTAIN LEGAL
DISPUTES**

(PROPOSAL 3 ON YOUR PROXY CARD)

PROPOSAL NO. 4—TO APPROVE AN AMENDMENT TO OUR RESTATED CERTIFICATE OF INCORPORATION TO PROVIDE FOR AN INCREASE IN THE TOTAL NUMBER OF SHARES OF COMMON STOCK THAT THE COMPANY IS AUTHORIZED TO ISSUE FROM 170,000,000 SHARES TO 225,000,000 SHARES

General

Stockholders are being asked to approve an amendment to our restated certificate of incorporation to increase the number of authorized shares of common stock from one hundred seventy million (170,000,000) shares to two hundred twenty-five million (225,000,000) shares (the “Charter Amendment”). On April 27, 2021, the Board of Directors approved the Charter Amendment, subject to stockholder approval, and directed that the Charter Amendment be submitted to a vote of the Company’s stockholders at this Annual Meeting. The Board of Directors has determined that the Charter Amendment is in the best interests of the Company and its stockholders and recommends approval by the stockholders.

The current restated certificate of incorporation, as amended (the “Current Charter”) authorizes the issuance of up to 170,000,000 shares of common stock, par value of \$0.001 per share. As of the close of business on March 31, 2021, 54,368,582 shares of common stock were outstanding. In addition, as of the close of business on March 31, 2021, the Company had:

- 3,839,107 shares of common stock issuable upon exercise of stock options outstanding at a weighted-average exercise price of \$5.30 per share;
- 2,433,823 shares of common stock issuable upon vesting of restricted stock units outstanding;
- 51,001,641 shares of common stock issuable upon the exercise of warrants outstanding at a weighted-average exercise price of \$2.26 per share;
- 659,653 shares of common stock reserved for future issuance under our Amended and Restated 2014 Equity Incentive Plan; and
- 141,337 shares of common stock reserved for future issuance under our 2014 Employee Stock Purchase Plan.

This means that as of March 31, 2021, the Company had just 57,555,857 shares of common stock available for corporate purposes, including, among other things, the issuance of stock options and stock splits by way of dividend. The Current Charter also authorizes the issuance of 25,000,000 shares of preferred stock, with no shares of preferred stock issued and outstanding as of March 31, 2021. The Charter Amendment will not increase or otherwise affect the Company’s authorized preferred stock or otherwise affect any other provisions of the Current Charter.

Purpose of the Charter Amendment

The Board of Directors believes it is in the best interest of the Company to increase the number of authorized shares of common stock in order to give the Company greater flexibility in considering and planning for future potential business needs.

With the exception of the Company’s routine practice of granting stock options and restricted stock units to employees and directors, the Company has no current specific plan, commitment, arrangement, understanding, or agreement regarding the issuance of the additional shares of common stock resulting from the proposed increase in authorized shares. The additional shares of common stock will be available for issuance by the Board of Directors for various corporate purposes, including but not limited to, grants under employee stock plans, financings, potential strategic transactions, including mergers, acquisitions, strategic partnerships, joint ventures, divestitures, business combinations, stock splits, stock dividends, as well as other general corporate transactions.

Having this additional authorized common stock available for future use will allow the Company to issue additional shares of common stock without the expense and delay of arranging a special meeting of stockholders.

Possible Effects of the Charter Amendment and Additional Anti-takeover Consideration

If the Charter Amendment is approved, the additional authorized shares would be available for issuance at the discretion of the Board of Directors and without further stockholder approval, except as may be required by law or the rules of Nasdaq. The additional shares of authorized common stock would have the same rights and privileges as the shares of common stock currently issued and outstanding. The adoption of the Charter Amendment would not have any immediate dilutive effect on the proportionate voting power or other rights of existing stockholders. Shares of common stock issued otherwise than for a stock split may decrease existing stockholders’ percentage equity ownership and, depending on the price at which they are issued, could be dilutive to the voting rights of existing stockholders and have a negative effect on the market price of the common stock. The common stock carries no preemptive rights to purchase additional shares of common stock.

The Company cannot provide assurances that any such transactions will be consummated on favorable terms or at all, that they will enhance stockholder value or that they will not adversely affect the Company’s business or the trading price of our stock.

The Company has not proposed the increase in the number of authorized shares of common stock with the intention of using the additional authorized shares for anti-takeover purposes, but the Company would be able to use the additional shares to oppose a hostile takeover attempt or delay or prevent changes in control or management of the Company. For example, without further stockholder approval, the Board of Directors could sell shares of common stock in a private transaction to purchasers who would oppose a takeover or favor the current Board of Directors. Although this proposal to increase the authorized number of shares of common stock has been prompted by business and financial considerations and not by the threat of any known or threatened hostile takeover attempt, stockholders should be aware that approval of this proposal could facilitate future efforts by the Company to oppose changes in control of the Company and perpetuate the Company's management, including transactions in which the stockholders might otherwise receive a premium for their shares over then current market prices.

If the Company's stockholders approve the Charter Amendment, the Board of directors will have authority to file with the Secretary of State of Delaware the Charter Amendment. The Charter Amendment will become effective on the date it is filed. The Board of Directors reserves the right to abandon or delay the filing of the Charter Amendment even if it is approved by our stockholders.

Neither Delaware law, the Current Charter, nor the Company's amended and restated bylaws provides for appraisal or other similar rights for dissenting stockholders in connection with this proposal. Accordingly, the Company's stockholders will have no right to dissent and obtain payment for their shares.

Vote Required

The affirmative vote of a majority of the outstanding shares of common stock is required to approve the Amended Charter. Accordingly, abstentions and broker non-votes will have the effect of a vote against this proposal. The Company expects that brokers, banks and other nominees will have discretionary authority to vote on this proposal, so the Company does not expect broker non-votes on this proposal.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE
FOR**

**THE APPROVAL OF THE AMENDMENT TO OUR RESTATED CERTIFICATE OF INCORPORATION TO PROVIDE FOR AN INCREASE
IN THE TOTAL NUMBER OF SHARES OF COMMON STOCK THAT THE COMPANY IS AUTHORIZED TO ISSUE FROM 170,000,000
SHARES TO 225,000,000 SHARES**

(PROPOSAL 4 ON YOUR PROXY CARD)

**PROPOSAL NO. 5—RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED
PUBLIC ACCOUNTING FIRM**

The Audit Committee and the Board of Directors believe that the continued retention of Ernst & Young LLP as our independent registered public accounting firm is in the best interest of the Company and our stockholders, and we are asking our stockholders to ratify the Audit Committee's selection of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2021. Although ratification is not required by our amended and restated bylaws or otherwise, the Board of Directors is submitting the selection of Ernst & Young LLP to our stockholders for ratification as a matter of good corporate practice. If the selection is not ratified, the Audit Committee will consider whether it is appropriate to select another independent registered public accounting firm. Even if the selection is ratified, the Audit Committee in its discretion may select a different registered public accounting firm at any time during the year if the committee determines that such a change would be in the best interests of the Company and our stockholders.

The Board of Directors first approved Ernst & Young LLP as our independent registered public accounting firm in 2009, and Ernst & Young LLP has audited our consolidated financial statements at December 31, 2020 and 2019, and for the years ended December 31, 2020 and 2019. Representatives of Ernst & Young LLP are expected to be present at the Annual Meeting. They will be given an opportunity to make a statement at the Annual Meeting if they desire to do so, and they will be available to respond to appropriate questions.

The Audit Committee pre-approves all audit and permitted non-audit services (including the fees and terms thereof) to be performed by Ernst & Young LLP, subject to the de minimis exception for non-audit services that are approved by the Audit Committee prior to the completion of an audit. The Audit Committee may delegate pre-approval authority to one or more members of the Audit Committee consistent with applicable law and listing standards, provided that the decisions of such Audit Committee member or members must be presented to the full Audit Committee at its next scheduled meeting. All of the services described in the following fee table were approved in conformity with the Audit Committee's pre-approval process.

Principal Accountant Fees and Services

We regularly review the services and fees of our independent registered public accounting firm. These services and fees are also reviewed by the Audit Committee on an annual basis. The aggregate fees billed for the fiscal years ended December 31, 2020 and 2019 for each of the following categories of services are as follows:

Fee Category	2020	2019
Audit Fees	\$ 598,905	\$ 606,313
Audit-Related Fees	—	—
Tax Fees	—	—
All Other Fees	—	—
Total Fees	\$ 598,905	\$ 606,313

Audit Fees. Consists of fees billed for professional services rendered for the audit of our annual financial statements, the review of interim financial statements and services provided in connection with our registration statements on Form S-1, Form S-8 and Form S-3.

Audit-Related Fees. Consist of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements and are not reported under Audit Fees.

Tax Fees. Consists of fees billed for tax compliance, tax advice and tax planning and includes fees for tax return preparation.

All Other Fees. Consists of all other fees billed other than those described above under Audit Fees, Audit-Related Fees and Tax Fees.

All of the services under the captions "Audit Fees" were pre-approved by our Audit Committee.

Pre-Approval Policies and Procedures

Our Audit Committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by our registered public accounting firm. This policy generally provides that we will not engage our registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by our Audit Committee or the engagement is entered into pursuant to one of the pre-approval procedures described below.

From time to time, our Audit Committee may pre-approve specified types of services that are expected to be provided to us by our registered public accounting firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

Vote Required

A majority of votes cast is necessary for ratification of the selection of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2021. A vote to abstain will have no direct effect on the outcome. The Company expects that brokers, banks and other nominees will have discretionary authority to vote on this proposal, so the Company does not expect broker non-votes on this proposal.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE
FOR
THE RATIFICATION OF THE APPOINTMENT OF ERNST & YOUNG LLP AS THE COMPANY'S
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM.**

(PROPOSAL 5 ON YOUR PROXY CARD)

BENEFICIAL OWNERSHIP OF COMMON STOCK

The following table sets forth information relating to the beneficial ownership of our common stock as of March 31, 2021, by: each person, or group of affiliated persons, known by us to beneficially own more than 5% of our outstanding shares of common stock; each of our directors; each of our named executive officers; and all directors and executive officers as a group.

The percentage of shares beneficially owned is computed on the basis of 54,368,582 shares of our common stock outstanding as of March 31, 2021. The number of shares beneficially owned by each entity, person, director or executive officer is determined in accordance with the rules of SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Shares of our common stock that a person has the right to acquire within 60 days of March 31, 2021 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated below, the address for each beneficial owner listed is c/o Genocoe Biosciences, Inc., Cambridge Discovery Park, 100 Acorn Park Drive, Cambridge, MA 02140.

Name	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
5% or greater stockholders:		
New Enterprise Associates 16, L.P. ⁽¹⁾ 1954 Greenspring Drive, Suite 600 Timonium, MD 21093	15,401,579	25.93 %
GSK Equity Investments, Ltd. ⁽²⁾ 980 Great West Road Brentford, Middlesex, TW8 9GS England	5,520,770	9.99 %
Avoro Capital Advisors LLC ⁽³⁾ 110 Greene Street, Suite 800 New York, NY 10012	5,469,960	9.99 %
BVF Partners L.P. ⁽⁴⁾ 44 Montgomery Street, 40th Floor San Francisco, CA 94104	5,285,549	8.95 %
Citadel Multi-Strategy Equities Master Fund Ltd. ⁽⁵⁾ 131 South Dearborn Street, 32nd Floor Chicago, IL 60603	3,587,076	6.40 %
Commodore Capital LP ⁽⁶⁾ 767 Fifth Avenue, Floor 12 New York, NY 10153	2,871,624	5.28 %
Directors and Named Executive Officers:		
William Clark ⁽⁶⁾	372,148	*
Girish Aakalu, Ph.D. ⁽⁷⁾	95,160	*
Tom Davis ⁽⁸⁾	83,292	*
Kenneth Bate ⁽⁹⁾	16,892	*
Ali Behbahani, M.D. ⁽¹⁰⁾	12,916	*
Katrine Bosley ⁽¹¹⁾	24,139	*
Ronald Cooper ⁽¹²⁾	16,250	*
Michael Higgins ⁽¹³⁾	16,261	*
Gisela Schwab, M.D. ⁽¹⁴⁾	3,125	*
George Siber, M.D. ⁽¹⁵⁾	44,492	*
All executive officers and directors as a group (14 persons) ⁽¹⁷⁾	886,410	1.61 %

* Represents beneficial ownership of less than one percent of our outstanding common stock.

- (1) Based on a Schedule 13D/A filed with the SEC on April 14, 2021, consisting of 10,376,936 shares of common stock and warrants to purchase 5,024,643 shares of common stock. NEA Partners 16, L.P. ("NEA Partners 16") is the sole general partner of New Enterprise Associates 16, L.P. ("NEA 16"). NEA 16 GP, LLC ("NEA 16 GP") is the sole general partner of NEA Partners 16. The individual managers of NEA 16 GP are Peter J. Barris, Forest Baskett, Ali Behbahani, Carmen Chang, Anthony A. Florence, Jr., Mohamad H. Makhzoumi, Joshua Makower, David M. Mott, Scott D. Sandell, Peter W. Sonsini and Paul Walker (collectively, the "Managers"). The Managers share voting and dispositive power with regard to these shares and warrants.
- (2) Based on a Schedule 13G/A filed with the SEC on February 12, 2021, consisting of 4,626,389 shares of common stock and 894,381 shares of common stock issuable upon the exercise of warrants. GSK Equity Investments, Ltd. is an indirect wholly-owned subsidiary of GlaxoSmithKline plc ("GSK"). Excludes 677,006 shares of common stock issuable upon the exercise of warrants, which are not exercisable within 60 days of March 31, 2021 by virtue of the beneficial ownership limitation described below. The number of shares of common stock into which the warrants are convertible is limited to that number of shares of common stock which would result in GSK, together with its affiliates, having an aggregate beneficial ownership of no more than 9.99% of the total issued and outstanding shares of common stock.
- (3) Based on a Schedule 13G filed with the SEC on February 12, 2021, consisting of 5,084,184 shares of common stock and 385,776 shares of common stock issuable upon the exercise of warrants. Avoro Capital Advisors LLC is an indirect wholly-owned subsidiary of Avoro Life Sciences LLC. Behzad Aghazadeh is the portfolio manager and controlling person of Avoro and, as such, holds voting and dispositive power with regard to these shares and warrants. Excludes 28,143,484 shares of common stock issuable upon the exercise of warrants, which are not exercisable within 60 days of March 31, 2021 by virtue of the beneficial ownership limitation described below. The number of shares of common stock into which the warrants are convertible is limited to that number of shares of common stock which would result in Dr. Aghazadeh, together with his affiliates, having an aggregate beneficial ownership of no more than 9.99% of the total issued and outstanding shares of common stock.
- (4) Based on a Schedule 13G/A filed with the SEC on February 12, 2021, consisting of 307,160 shares of common stock held of record by Biotechnology Value Fund, L.P., 156,227 shares of common stock held of record by Biotechnology Value Fund II, L.P., 30,419 shares of common stock held of record by Biotechnology Value Trading Fund OS LP, and 92,466 shares of common stock held of record by BVF Partners L.P. Managed Accounts, collectively the ("BVF entities"). Also includes 4,699,277 shares of common stock issuable upon exercise of warrants held by the BVF entities. The number of shares of common stock into which the warrants are convertible is limited to that number of shares of common stock which would result in the BVF entities, together with their affiliates, having an aggregate beneficial ownership of no more than 9.99% of the total issued and outstanding shares of common stock. This beneficial ownership limitation may be increased or decreased to an amount not to exceed 19.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon exercise of warrants.
- (5) Based on a Schedule 13G/A filed with the SEC on February 16, 2021, consisting of 1,906,391 shares of common stock and 1,680,685 shares of common stock issuable upon the exercise of warrants. Citadel Advisors LLC is the portfolio manager for Citadel Multi-Strategy Equities Master Fund Ltd. Citadel Advisors Holdings LP ("CAH") is the sole member of Citadel Advisors LLC. Citadel GP LLC ("CGP") is the general partner of CAH. CALC IV LP ("CALC4") is the non-member manager of Citadel Securities LLC. Citadel Securities GP LLC ("CGSP") is the general partner of CALC4. Kenneth Griffin is the President and Chief Executive Officer of CGP, and owns a controlling interest in CGP and CSGP and, as such, holds voting and dispositive power with regard to these shares and warrants.
- (6) Based on a Schedule 13G filed with the SEC on March 31, 2021, consisting of 2,871,624 shares of common stock. Commodore Capital LP ("Commodore Capital") is the investment manager to Commodore Capital Master LP ("Commodore Master"). Michael Kramarz and Robert Egen Atkinson are the managing partners of Commodore Capital and, as such, hold voting and dispositive power with regard to these shares.
- (7) Consisting of 63,750 shares of common stock and 12,695 shares of common stock that will be acquired upon the vest of RSUs and 295,703 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.
- (8) Consisting of 3,145 shares of common stock and 3,074 shares of common stock that will be acquired upon the vest of RSUs and 88,941 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.
- (9) Consisting of 3,074 shares of common stock that will be acquired upon the vest of RSUs and 80,218 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.
- (10) Consisting of 16,892 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.
- (11) Consisting of 12,916 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.
- (12) Consisting of 3,887 shares of common stock and 20,252 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.
- (13) Consisting of 16,250 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.
- (14) Consisting of 16,261 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.

- (15) Consisting of 3,125 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.
- (16) Consisting of 20,678 shares of common stock and 23,814 shares of common stock that can be acquired upon the exercise of options within 60 days of March 31, 2021.
- (17) Consisting of 106,559 shares of common stock and 25,801 shares of common stock that will be acquired upon the vest of RSUs and 754,050 shares of common stock that will be acquired upon the vest of RSUs or that can be acquired upon the exercise of options within 60 days of March 31, 2021.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The following is a description of transactions since January 2020, to which we have been a party, in which the amount involved exceeded or will exceed \$120,000, and in which any related person had a direct or indirect material interest.

Indemnification Agreements

We entered into indemnification agreements with each of our directors and executive officers. These agreements will require us to indemnify these individuals and, in certain cases, affiliates of such individuals, to the fullest extent permissible under Delaware law against liabilities that may arise by reason of their service to us or at our direction, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified.

Registration Rights Agreement

We are a party to a registration rights agreement with certain holders of common stock, including some of our directors, executive officers and 5% stockholders and their affiliates and entities affiliated with our directors. The registration rights agreement provides these holders the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing.

Transactions with Our Executive Officers, Directors and 5% Stockholders

New Enterprise Associates ("NEA") was a lead investor in equity financings in January 2018, February 2019 and June 2019 and beneficially owns 15,401,579 shares of our common stock as of March 31, 2021. In connection with our January 2018 equity financing, we agreed to elect one representative from NEA to serve as a member of our Board of Directors. In February 2018, the Board of Directors elected Ali Behbahani, a partner in the healthcare group at NEA, as a director of the Company. We do not have any obligation to continue to nominate NEA's representative on our Board of Directors.

Related Person Transactions Policy

Pursuant to our written related person transaction approval policy, if we want to enter into a transaction with a related person or an affiliate of a related person, our Chief Financial Officer will review the proposed transaction to determine, based on applicable Nasdaq and SEC rules, if such transaction requires pre-approval by the Audit Committee and/or Board of Directors. If pre-approval is required, such matters will be reviewed at the next regular or special Audit Committee and/or Board of Directors meeting. We may not enter into a related person transaction unless our Chief Financial Officer has either specifically confirmed in writing that no further reviews are necessary or that all requisite corporate reviews have been obtained.

Transactions with related persons

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a "related person transaction," the related person must report the proposed related person transaction to our Chief Financial Officer. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by our Audit Committee. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the Audit Committee will review, and, in its discretion, may ratify the related person transaction. The policy also permits the chair of the Audit Committee to review and, if deemed appropriate, approve proposed related person transactions, in which the amount involved does not exceed \$500,000, that arise between Audit Committee meetings, subject to ratification by the Audit Committee at its next meeting. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the Audit Committee after full disclosure of the related person's interest in the transaction.

In addition to the transactions that are excluded by the instructions to the SEC's related person transaction disclosure rule, our Board of Directors has determined that the following transactions are pre-approved by the Audit Committee even if the aggregate amount of such transaction exceeds \$120,000:

- employment of executive officers where the related compensation is required to be reported in a proxy statement (general applicable to "named executive officers") or the executive officer is not an immediate family member of another executive officer or director, the related compensation would be reported as compensation in a proxy statement and the Compensation Committee approved (or recommended that the Board of Directors approve) such compensation;
- any compensation paid to a director if the compensation is required to be reported in a proxy statement;
- any transaction with another company at which a related person's only relationship is an employee (other than an executive officer), director of beneficial owner of less than 10% of that company's shares, if the aggregate amount involved does not exceed the greater of \$1 million or 2% of that company's total annual revenues;
- any transaction where our Company is indebted to another company at which a related person's only relationship is an employee (other than an executive officer), director of beneficial owner of less than 10% of that company's shares, if the total amount of our Company's indebtedness to the other company at the end of that company's last completed fiscal year does not exceed 1% of that company's total consolidated assets;

- any transaction where the related person's interest arises solely from the ownership of our Company's common stock and all holders of our Company's common stock received the same benefit on a pro rata basis;
- any transaction involving a related person where the rates or charges involved are determined by competitive bids;
- any transaction with a related person involving the rendering of services as common or contract carrier, or public utility, at rates or charges fixed in conformity with law or governmental authority; or
- any transaction with a related person involving services as a bank depository of funds, transfer agent, registrar, trustee under a trust indenture, or similar services.

GENERAL MATTERS

Code of Business Conduct and Ethics and Corporate Governance Guidelines

We have adopted a Code of Business Conduct and Ethics for our directors, officers and employees. A copy of the Code of Business Conduct and Ethics may be accessed free of charge by visiting our website at <https://ir.genoccea.com/> and going to the "Investor Relations—Governance" section or by requesting a copy in writing from Diantha Duvall, Secretary, at our Cambridge, Massachusetts office. We intend to post on our website amendments to, or waivers under, a provision of the Code of Business Conduct and Ethics that apply to certain of our executive officers within four business days following the date of such amendment or waiver.

A copy of the Corporate Governance Guidelines may also be accessed free of charge by visiting the website at <https://ir.genoccea.com/> and going to the "Investors Relations—Governance" section or by requesting a copy in writing from Diantha Duvall, Secretary, at our Cambridge, Massachusetts office.

Availability of Certain Documents

A copy of our 2020 Annual Report has been posted on the Internet along with this Proxy Statement. We will mail without charge, upon written or oral request, a copy of our 2020 Annual Report excluding exhibits. Please contact our Corporate Secretary, at 617-876-8191 or send a written request to our Corporate Secretary at:

Genoccea Biosciences, Inc.
100 Acorn Park Drive
Cambridge, MA 02140
Attention: Secretary

Only one copy of this Proxy Statement is being delivered to multiple stockholders sharing an address, unless we have received contrary instructions from one or more of the stockholders. We will undertake to deliver promptly, upon written or oral request, a separate copy to a stockholder at a shared address to which a single copy of the Proxy Statement was delivered. You may make a written or oral request by sending a written notification to our Secretary at the address above, providing your name, your shared address, and the address to which we should direct the additional copy of the Proxy Statement. Multiple stockholders sharing an address who have received one copy of the Proxy Statement and would prefer us to mail each stockholder a separate copy of future mailings should contact us at our principal executive offices. Additionally, if current stockholders with a shared address received multiple copies of the Proxy Statement and would prefer us to mail one copy of future mailings to stockholders at the shared address, notification of that request may also be made through our principal executive offices.

Stockholder Proposals and Nominations

Requirements for Stockholder Proposals to be Considered for Inclusion in our Proxy Materials. To be considered for inclusion in next year's Proxy Statement, stockholder proposals pursuant to Rule 14a-8 under the Exchange Act must be received by our Secretary at Genoccea Biosciences, Inc., 100 Acorn Park Drive, Cambridge, MA 02140 no later than 120 days prior to April 29, 2022.

Requirements for Stockholder Proposals or Director Nominations to be Brought Before an Annual Meeting. Our amended and restated bylaws provide that, for stockholder nominations to the Board of Directors or other proposals to be considered at an annual meeting, the stockholder must have given timely notice thereof in writing to the Secretary at Genoccea Biosciences, Inc., 100 Acorn Park Drive, Cambridge, MA 02140. To be timely for the 2022 annual meeting, the stockholder's notice must be delivered to or mailed and received by us not more than 120 days, and not less than 90 days, before the anniversary date of the preceding annual meeting, except that if there was no annual meeting in the prior year or if the current year's annual meeting is more than 30 days before or after the anniversary date of the previous year's annual meeting, we must receive the notice not later than the close of business on the tenth day following the day on which we provide notice or public disclosure of the date of the meeting. Such notice must provide the information required by our bylaws with respect to each matter the stockholder proposes to bring before the 2022 annual meeting.

Communications with the Board of Directors

A stockholder may send general communications to our Board of Directors, any committee of our Board of Directors or any individual director by directing such communication to our Corporate Secretary at:

Genoccea Biosciences, Inc.
100 Acorn Park Drive
Cambridge, MA 02140
Attention: Secretary

The communication must prominently display the legend "BOARD COMMUNICATION" in order to indicate to the Secretary that it is a communication for the Board of Directors. Upon receiving such a communication, the Secretary will promptly forward the communication to the relevant individual or group to which it is addressed. Certain items that are unrelated to the Board of Directors' duties and responsibilities may be excluded, such as spam, junk mail and mass mailings, resumes and other forms of job inquiries, surveys and business solicitations or advertisements. The Secretary will not forward any communication determined in her good faith belief to be frivolous, unduly hostile, threatening, illegal or similarly unsuitable.

Other Matters

As of the date of this Proxy Statement, the Board of Directors does not intend to present any matters other than those described herein at the Annual Meeting and is unaware of any matters to be presented by other parties. If other matters are properly brought before the Annual Meeting for action by the stockholders, proxies will be voted in accordance with the recommendation of the Board of Directors or, in the absence of such a recommendation, in accordance with the judgment of the proxy holder.

By Order of the Board of Directors



William Clark
President and Chief Executive Officer
April 29, 2021



GENOCEA BIOSCIENCES, INC.
 ATTN: CORPORATE CONTROLLER
 100 ACORN PARK DRIVE, 5TH FLOOR
 CAMBRIDGE, MA 02140

VOTE BY INTERNET

Before The Meeting - Go to 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 the day before the cut-off date or meeting date. 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.

During The Meeting - Go to www.virtualshareholdermeeting.com/GNCA2021

You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

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 the day before the cut-off date or meeting date. 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:

D47442-P55686

KEEP THIS PORTION FOR YOUR RECORDS

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

DETACH AND RETURN THIS PORTION ONLY

GENOCEA BIOSCIENCES, INC.

The Board of Directors recommends you vote FOR the following:

1. Election of Directors

For All Withhold All For All Except

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.

Nominees:

- 01) Kenneth Bate
 02) Ali Behbahani

The Board of Directors recommends you vote FOR the following proposals:

2. To approve, on an advisory basis, the compensation paid to our named executive officers.
3. To approve an amendment to Genocea's restated certificate of incorporation to provide that the courts located within the state of Delaware will serve as the exclusive forum for the adjudication of certain legal disputes.
4. To approve an amendment to the Company's restated certificate of incorporation to provide for an increase in the total number of shares of common stock that the Company is authorized to issue from 170,000,000 shares to 225,000,000 shares.
5. To ratify the appointment of Ernst & Young LLP as the independent registered public accounting firm for the Company for the fiscal year ending December 31, 2021.

For Against Abstain

NOTE: Such other business as may properly come before the meeting or any adjournment thereof.

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.

Signature [PLEASE SIGN WITHIN BOX] _____ Date _____

Signature (Joint Owners) _____ Date _____

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:
The Notice and Proxy Statement and Form 10-K are available at www.proxyvote.com.

D47443-P55686

PROXY
THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
OF GENOCEA BIOSCIENCES, INC.

The undersigned hereby appoints William Clark as proxy and attorney-in-fact, with full power of substitution, and hereby authorizes him to represent and vote, as provided on the other side, all the shares of GENOCEA BIOSCIENCES, INC. common stock which the undersigned is entitled to vote and, in his discretion, to vote upon such other business as may properly come before the Annual Meeting of Stockholders of the Company to be held on Tuesday, June 24, 2021 at 9:00 A.M. EDT or any adjournment thereof, with all powers which the undersigned would possess if present at the Meeting.

THIS PROXY CARD, WHEN PROPERLY EXECUTED, WILL BE VOTED IN THE MANNER DIRECTED HEREIN BY THE UNDERSIGNED. IF NO DIRECTION IS MADE BUT THE CARD IS SIGNED, THIS PROXY CARD WILL BE VOTED (i) FOR the election as directors of the nominees named herein to the Company's Board of Directors, (ii) FOR approval of the advisory vote on the compensation paid to our named executive officers; (iii) FOR approval of the amendment to Genoceas's restated certificate of incorporation to provide that the courts located within the state of Delaware will serve as the exclusive forum for the adjudication of certain legal disputes, (iv) FOR approval of the amendment to our restated certificate of incorporation to increase the number of shares of common stock authorized for issuance from 170,000,000 shares to 225,000,000 shares; (v) FOR the ratification of Ernst & Young LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2021, and (vi) will be voted according to the discretion of the proxy holder named in the proxy card upon any other business that may properly be brought before the Annual Meeting and at all adjournments and postponements thereof.

Continued and to be signed on reverse side