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NOTICE OF INVITATION TO 2020 ANNUAL GENERAL MEETING OF SHAREHOLDERS

To Be Held On June 11, 2020

Please read the "Important Notice Regarding COVID 19 (Coronavirus) in Switzerland" on page 6 of this notice.

Dear Shareholders:

You are cordially invited to attend the 2020 annual general meeting of shareholders, or the 2020 Annual General Meeting of CRISPR Therapeutics AG, or the Company, to be held on June 11, 2020 at 8:00 a.m. Central European Summer Time (2:00 a.m. Eastern Daylight Time) at the offices of Walder Wyss Ltd., Seefeldstrasse 123, 8008 Zurich, Switzerland. At the 2020 Annual General Meeting, the Company's board of directors, or the Board of Directors, will ask the Company's shareholders to consider and vote on the following matters:

1. The approval of the annual report, the consolidated financial statements and the statutory financial statements of the Company for the year ended December 31, 2019.

The Board of Directors proposes to approve the annual report, the consolidated financial statements and the statutory financial statements of the Company for the year ended December 31, 2019 and to take note of the reports of the auditors. Copies of these documents are available for download at www.proxydocs.com/CRSP.

2. The approval of the appropriation of financial results.

The Board of Directors proposes to carry forward the net income resulting from the appropriation of financial results as follows:

Proposed Appropriation of Net Income: in Swiss Francs (CHF)

Balance brought forward from previous years	CHF	(264,902,686)
Net income for the period (on a stand-alone unconsolidated basis):	CHF	8,323,716
Total accumulated net loss:	CHF	(256,578,970)

Resolution proposed by the Board of Directors:

- RESOLVED, that the net income for the period of CHF 8,323,716 shall be carried forward.

3. The discharge of the members of the Board of Directors and Executive Committee.

The Board of Directors proposes that the members of the Board of Directors and the Executive Committee of the Company be discharged from personal liability for the business year ended December 31, 2019.

4. The election and re-election of the members to the Board of Directors.

The Board of Directors proposes that Rodger Novak, M.D. be re-elected as member of the Board of Directors and Chairman of the Board of Directors and that each of Samarth Kulkarni, Ph.D., Bradley Bolzon, Ph.D., Ali Behbahani, M.D., Simeon J. George, M.D., John T. Greene, Katherine A. High, M.D., and Douglas A. Treco, Ph.D. be elected or re-elected, as appropriate, as directors, each for a term extending until completion of the 2021 annual general meeting of shareholders.

4.a Re-election of Rodger Novak, M.D., as member and Chairman

4.b Re-election of Samarth Kulkarni, Ph.D.

4.c Re-election of Ali Behbahani, M.D.

4.d Re-election of Bradley Bolzon, Ph.D.

4.e Re-election of Simeon J. George, M.D.

4.f Re-election of John T. Greene

4.g Re-election of Katherine A. High, M.D.

4.h Election of Douglas A. Treco, Ph.D.

5. The election and re-election of the members of the Compensation Committee.

The Board of Directors proposes to elect or re-elect, as appropriate, each of Ali Behbahani, M.D., Simeon J. George, M.D., and John T. Greene as members of the Compensation Committee of the Board of Directors, each for a term extending until completion of the 2021 annual general meeting of the shareholders.

5.a Election of Ali Behbahani, M.D.

5.b Re-election of Simeon J. George, M.D.

5.c Re-election of John T. Greene

6. The approval of the compensation for the Board of Directors and the Executive Committee.

The Board of Directors proposes to hold the following separate votes on the non-performance-related and the variable compensation of the Board of Directors and the Executive Committee:

6.a Binding vote on total non-performance-related compensation for members of the Board of Directors from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders.

The Board of Directors proposes that shareholders approve the total maximum amount of non-performance-related compensation for the members of the Board of Directors covering the period from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders, i.e., USD \$320,000 (cash base compensation plus social security costs).

6.b Binding vote on equity for members of the Board of Directors from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders.

The Board of Directors proposes that shareholders approve the maximum grant of equity or equity linked instruments for the members of the Board of Directors covering the period from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders with maximum value of USD \$5,911,650 (equity grant date value plus social security costs).

6.c Binding vote on total non-performance-related compensation for members of the Executive Committee from July 1, 2020 to June 30, 2021.

The Board of Directors proposes that shareholders approve the total maximum amount of non-performance-related cash compensation for the members of the Executive Committee covering the period from July 1, 2020 to June 30, 2021, i.e., USD \$3,393,795 (cash base compensation plus social security costs).

6.d Binding vote on total variable compensation for members of the Executive Committee for the current year ending December 31, 2020.

The Board of Directors proposes that shareholders approve the total maximum amount of variable compensation for the members of the Executive Committee for the current year ending December 31, 2020, i.e., USD \$2,379,619 (cash compensation plus social security costs).

6.e Binding vote on equity for members of the Executive Committee from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders.

The Board of Directors proposes that shareholders approve the maximum of equity or equity linked instruments for the members of the Executive Committee covering the period from the 2020 Annual General Meeting of shareholders to the 2021 annual general meeting of shareholders with maximum value of USD \$53,069,700 (equity grant date value plus social security costs).

7. The approval of an increase in the Conditional Share Capital for Employee Benefit Plans.

The Board of Directors proposes to increase the Company's conditional share capital for employee benefit plans by CHF 150,000 to CHF 710'947.11 for the issuance of up to 23'698'237 Common Shares and amend art. 3c para. 1 of the Articles of Association as follows:

Art. 3c Conditional Share Capital for Employee Benefit Plans

The share capital of the Company shall be increased by an amount not exceeding CHF 710'947.11 through the issue of a maximum of 23'698'237 registered shares, payable in full, each with a nominal value of CHF 0.03, in connection with the exercise of option rights granted to any employee of the Company or a subsidiary, and any consultant, members of the Board of Directors, or other person providing services to the Company or a subsidiary.

Art. 3c Bedingtes Aktienkapital für Mitarbeiterbeteiligungspläne

Das Aktienkapital kann durch die Ausgabe von höchstens 23'698'237 voll zu liberierenden Namenaktien im Nennwert von je CHF 0.03 um höchstens CHF 710'947.11 durch Ausübung von Optionsrechten erhöht werden, welche Mitarbeitenden der Gesellschaft oder ihrer Tochtergesellschaften, Personen in vergleichbaren Positionen, Beratern, Verwaltungsratsmitgliedern oder anderen Personen, welche Dienstleistungen zu Gunsten der Gesellschaft erbringen, gewährt wurden.

8. The approval of an Amendment to the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan.

The Board of Directors proposes to amend the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan, or the 2018 Plan, to (a) increase the total number of common shares which may be issued pursuant to the 2018 Plan by 5,000,000 common shares, increasing the total number of common shares issuable under the 2018 Plan to 13,000,000 common shares, plus the number of shares that were available for issuance under the CRISPR Therapeutics AG Amended and Restated 2016 Stock Option and Incentive Plan, or the 2016 Plan, on the original effective date of the 2018 Plan, plus any common shares underlying any awards that are forfeited, canceled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without any issuance of common shares, expired or are otherwise terminated, other than by exercise, under the 2018 Plan, the 2016 Plan and the CRISPR Therapeutics AG 2015 Stock Option and Grant Plan; and (b) increase the number of shares that may be issued under the 2018 Plan in the form of incentive stock options by 5,000,000 common shares.

9. The approval of increasing the maximum number of authorized share capital and extending the date by which the Board of Directors may increase the share capital.

The Board of Directors proposes to increase the authorized share capital to 30,518,283 shares, to extend the date by which the Board of Directors may increase the share capital to June 10, 2022, and to amend art. 3a para 1 of the Articles of Association to reflect the foregoing as follows:

Art. 3a Authorized Share Capital

The Board of Directors is authorized to increase the share capital, in one or several steps until 10 June 2022, by a maximum amount of CHF 915'548.49 by issuing a maximum of 30'518'283 registered shares with a par value of CHF 0.03 each, to be fully paid up. An increase of the share capital (i) by means of an offering underwritten by a financial institution, a syndicate or another third party or third parties, followed by an offer to the then-existing shareholders of the Company and (ii) in partial amounts shall also be permissible.

Art. 3a Genehmigtes Kapital

Der Verwaltungsrat ist ermächtigt, jederzeit bis zum 10. Juni 2022, das Aktienkapital im Maximalbetrag von CHF 915'548.49 durch Ausgabe von höchstens 30'518'283 vollständig zu liberierende Namenaktien mit einem Nennwert von je CHF 0.03 zu erhöhen. Eine Erhöhung des Aktienkapitals (i) durch die Zeichnung von Aktien aufgrund eines von einem Finanzinstitut, eines Verbandes, einer anderen Drittpartei oder Drittparteien unterzeichneten Angebots, gefolgt von einem Angebot gegenüber den zu diesem Zeitpunkt bestehenden Aktionären der Gesellschaft sowie (ii) in Teilbeträgen ist zulässig.

10. The re-election of the independent voting rights representative.

The Board of Directors proposes the re-election of lic. iur. Marius Meier, Attorney at Law, Lautengartenstrasse 7, CH-4052 Basel, as the independent voting rights representative until the closing of the 2021 annual general meeting of shareholders.

11. The re-election of the auditors.

The Board of Directors proposes to re-elect Ernst & Young AG as the Company's statutory auditor for the term of office of one year and the re-election of Ernst & Young LLP as the Company's independent registered public accounting firm for the year ending December 31, 2020.

12. The transaction of any other business that may properly come before the 2020 Annual General Meeting or any adjournment or postponement thereof.

In light of the global spread of the SARS-CoV-2 virus (coronavirus) and the COVID-19 pandemic and the uncertainty whether our chairman or any member of the Board of Directors will be able to personally attend the 2020 Annual General Meeting, the Board of Directors may make an ad hoc proposal for the election of an ad hoc chairperson of the 2020 Annual General Meeting. **Please read the "Important Notice Regarding COVID-19 (Coronavirus) in Switzerland" below.**

The foregoing items of business are more fully described in the attached proxy statement, which forms a part of this notice and is incorporated herein by reference. Shareholders of record at the close of business on April 13, 2020 will be entitled to notice of and to vote at the 2020 Annual General Meeting or any adjournment or postponement thereof.

We have elected to provide access to our proxy materials over the Internet under the Securities and Exchange Commission's "notice and access" rules. We believe that providing our proxy materials over the Internet expedites shareholders' receipt of proxy materials, lowers costs and reduces the environmental impact of our annual general meeting.

Due to the current spread of the SARS-CoV-2 virus (coronavirus) and the COVID-19 pandemic in Switzerland and globally, we strongly encourage all shareholders to exercise their rights through the independent voting rights representative instead of attending the 2020 Annual General Meeting in person. Furthermore, in accordance with the Ordinance on Measures to Combat the Coronavirus (COVID-19), enacted by the Swiss Federal Council on March 13, 2020, as amended from time to time, the Board of Directors may be compelled to curtail or prohibit the right of in-person attendance of shareholders at the 2020 Annual General Meeting and ask shareholders to exercise their rights at the 2020 Annual General Meeting through the independent voting rights representative. **Please read the "Important Notice Regarding COVID-19 (Coronavirus) in Switzerland" on page 6 of this Notice of Invitation to 2020 Annual General Meeting of Shareholders.** However, whether or not you plan to attend the 2020 Annual General Meeting in person, we encourage you to read this proxy statement and submit your proxy or voting instructions as soon as possible. Please review the instructions on each of your voting options described in the proxy statement.

Thank you for your ongoing support and continued interest in CRISPR Therapeutics AG.

By Order of the Board of Directors,



Rodger Novak, M.D.
Chairman of the Board of Directors

Zug, Switzerland

April 24, 2020

Important Notice Regarding Internet Availability of Proxy Materials: This proxy statement and our 2020 annual report to shareholders, or the Annual Report, which includes our Annual Report on Form 10-K for the year ended December 31, 2019, are available at www.proxydocs.com/CRSP. These documents are also available to any shareholder who wishes to receive a paper copy by calling (866) 648-8133, by emailing paper@investorelections.com or by submitting a request over the Internet at www.investorelections.com/CRSP.

Important Notice Regarding COVID-19 (Coronavirus) in Switzerland: We are actively monitoring the global spread of the SARS-CoV-2 virus (coronavirus) and the COVID-19 pandemic and are sensitive to the public health and travel concerns our shareholders may have and the protocols that international, federal, state, and local governments have imposed to date and may continue to impose.

In order for the Company to comply with laws, rules, regulations and restrictions imposed by applicable Swiss and other governmental authorities in connection with the global spread of the SARS-CoV-2 virus (coronavirus) and the COVID-19 pandemic (any such laws, rules, regulation and restrictions, including the Ordinance (as defined below), the “COVID-19 Regime”), the following may occur in connection with the 2020 Annual General Meeting: (i) while our practice is to have the members of the Board of Directors and the management present at the 2020 Annual General Meeting, we may be unable to do so in light of the foregoing; (ii) the Board may need to dramatically curtail attendance in person at the 2020 Annual General Meeting to comply with the foregoing, or attendance in person by shareholders and other third-party attendees may be prohibited at all, and (iii) questions, requests for information, proposals for motions, ad hoc proposals (including the election of an ad hoc chairperson for the 2020 Annual General Meeting) and statements made for the record by shareholders may only be submitted in writing or electronically in advance to the 2020 Annual General Meeting. Shareholders and other third-party attendees of the 2020 Annual General Meeting are advised that changes to those applicable laws, rules, regulations and restrictions imposed by applicable Swiss and other governmental authorities may be made with little or no advance notice.

In this context, the Swiss Federal Council has enacted, on 13 March 2020, the Ordinance on Measures to Combat the Coronavirus (COVID-19), as amended from time to time, or the Ordinance. The Ordinance prohibits, among other things, the in-person attendance of shareholders at shareholders’ meetings in Switzerland. The Ordinance remains in force until 10 May 2020. Depending on the spread of the SARS-CoV-2 virus (coronavirus) and the COVID-19 pandemic over the course of the next weeks, the validity period of the Ordinance might be further extended by the Swiss Federal Council, including to a date after the 2020 Annual General Meeting, and thus affect the 2020 Annual General Meeting.

Important Notice Regarding COVID-19 (Coronavirus) (continued)

Pursuant to the Ordinance, the Company may issue an order to the shareholders and request shareholders to exercise their rights (including the right to ask questions and present ad hoc proposals and motions) through the independent voting rights representative. Such order would have to be communicated to the shareholders with a notice period of at least four days prior to the 2020 Annual General Meeting being held. Consequently, we may issue an order prohibiting the presence of shareholders at the 2020 Annual General Meeting on short notice and ask you to exercise your rights exclusively through the independent voting rights representative. In case that we issue such an order, an ad hoc proposal may have to be presented at the 2020 Annual General Meeting for the election of an ad hoc chairperson for the 2020 Annual General Meeting, as in light of the global spread of the SARS-CoV-2 virus (coronavirus) and the COVID-19 pandemic, neither our chairman nor any other member of the Board of Directors may be able to preside at the 2020 Annual General Meeting.

Based on the foregoing, we strongly encourage you once again to grant a power to the independent voting rights representative for the exercise of your voting rights.

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PROXY STATEMENT

2020 ANNUAL GENERAL MEETING OF SHAREHOLDERS
To Be Held on June 11, 2020

INFORMATION CONCERNING SOLICITATION AND VOTING

This proxy statement and the enclosed proxy card are being furnished in connection with the solicitation of proxies by the board of directors, or the Board of Directors, of CRISPR Therapeutics AG, or the “Company, for use at the 2020 annual general meeting of shareholders, or the 2020 Annual General Meeting, to be held on June 11, 2020 at 8:00 a.m. Central European Summer Time (2:00 a.m. Eastern Daylight Time) at the offices of Walder Wyss Ltd., Seefeldstrasse 123, 8008 Zurich, Switzerland, and at any adjournment thereof. **(Please read the “Important Notice Regarding COVID-19 (Coronavirus) in Switzerland” on page 6 of the Notice of Invitation to 2020 Annual General Meeting of Shareholders).**

Unless otherwise stated, all references to “us,” “our,” “CRISPR,” “CRISPR Therapeutics,” “we,” the “Company” and similar designations refer to CRISPR Therapeutics AG and its consolidated subsidiaries. References to our website are inactive textual references only, and the contents of our website are not incorporated by reference into this proxy statement.

This proxy statement summarizes information about the proposals to be considered at the meeting and other information you may find useful in determining how to vote. The proxy card is the means by which you actually authorize another person to vote your shares in accordance with your instructions. We are making this proxy statement, the related proxy card and our annual report to shareholders for the year ended December 31, 2019, or the Annual Report, available to shareholders for the first time on or about April 27, 2020.

A copy of our Annual Report on Form 10-K for the year ended December 31, 2019, as filed with the United States Securities and Exchange Commission, or the SEC, except for exhibits, will be furnished without charge to any shareholder upon written or oral request to CRISPR Therapeutics, Inc., 610 Main Street, Cambridge, Massachusetts 02139, on the internet at www.proxydocs.com/CRSP, by calling (866) 648-8133, by emailing paper@investorelections.com or by submitting a request over the Internet at www.investorelections.com/CRSP. This proxy statement and our Annual Report on Form 10-K for the year ended December 31, 2019 are also available on the SEC’s website at www.sec.gov.

IMPORTANT INFORMATION ABOUT THE ANNUAL GENERAL MEETING AND VOTING

Q. Why did I receive these proxy materials?

- A. Our Board of Directors has made these materials available to you on the Internet in connection with the solicitation of proxies for use at our 2020 Annual General Meeting to be held on June 11, 2020 at 8:00 a.m. Central European Summer Time (2:00 a.m. Eastern Daylight Time) at the offices of Walder Wyss Ltd., Seefeldstrasse 123, 8008 Zurich, Switzerland. As a holder of common shares, you are (subject to restrictions imposed by Swiss authorities due to the spread SARS-CoV-2 virus (coronavirus) and the COVID-19 epidemic) invited to attend the 2020 Annual General Meeting and are requested to vote on the items of business described in this proxy statement. Please read the “Important Notice Regarding the Spread of the COVID-19 (Coronavirus) in Switzerland” on page 6 of this Notice of Invitation to 2020 Annual General Meeting of Shareholders. This proxy statement includes information that is designed to assist you in voting your shares and that we are required to provide to you under SEC rules and applicable Swiss laws.

Q. Why did I receive a notice in the mail regarding the Internet availability of proxy materials instead of a full set of proxy materials?

- A. In accordance with the SEC rules, we may furnish proxy materials, including this proxy statement and our Annual Report, to our shareholders by providing access to such documents on the Internet instead of mailing printed copies. If you would like to receive a paper copy of our proxy materials, you should follow the instructions for requesting such materials in the notice.

Q. What is the purpose of the 2020 Annual General Meeting?

- A. At the 2020 Annual General Meeting, shareholders will consider and vote on the following matters:
1. The approval of the Annual Report, the consolidated financial statements and the statutory financial statements of the Company for the year ended December 31, 2019 (Proposal 1);
 2. The approval of the appropriation of financial results (Proposal 2);
 3. The discharge of the members of the Board of Directors and the Executive Committee (Proposal 3);
 4. The election and re-election of eight directors to our Board of Directors, including the chairman of the Board of Directors, each for a term extending until the completion of the 2021 annual general meeting of shareholders (Proposals 4.a-4.h);
 5. The election and re-election of the members of the Compensation Committee of the Board of Directors (Proposals 5.a-5.c);
 6. The approval of the compensation for the Board of Directors and the members of the Executive Committee (Proposals 6.a-6.e);
 7. The approval of an increase in the Conditional Share Capital for Employee Benefit Plans (Proposal 7);
 8. The approval of an amendment to the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan (Proposal 8);
 9. The approval of increasing the maximum number of authorized share capital and extending the date by which the Board of Directors may increase the share capital (Proposal 9);
 10. The re-election of the independent voting rights representative (Proposal 10);
 11. The re-election of Ernst & Young AG as our statutory auditor for the term of office of one year and the re-election of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2020 (Proposal 11); and

12. The transaction of any other business that may properly come before the 2020 Annual General Meeting or any adjournment or postponement thereof (Proposal 12).

Q. Who can vote at the 2020 Annual General Meeting?

- A. To be entitled to vote, you must have been a shareholder of record at the close of business on April 13, 2020, the record date for our 2020 Annual General Meeting. As of the record date, there were 61,011,445 common shares outstanding and entitled to vote at the 2020 Annual General Meeting. Members of our Board of Directors and our Executive Committee are not allowed to vote on the proposal to discharge the members of the Board of Directors and the Executive Committee from personal liability for the business year ended December 31, 2019.

Q. How many votes do I have?

- A. Each common share that you own as of the record date will entitle you to one vote on each matter considered at the 2020 Annual General Meeting. There is no cumulative voting in the election of directors.

Q. How do I vote?

- A. **If you are the “record holder” of your shares**, meaning that your shares are registered in your name in the records of our transfer agent, American Stock Transfer & Trust Company, LLC, and not through a bank, brokerage firm or other nominee, you may vote your shares at the meeting in person or by proxy as follows:
 1. **Over the Internet:** To vote over the Internet, please go to the following website: www.proxypush.com/crsp, and follow the instructions on that website for submitting your proxy electronically. If you vote over the Internet, you do not need to complete and mail your proxy card or vote your proxy by telephone. You must specify how you want your shares voted, or your Internet vote cannot be completed and you will receive an error message. You must submit your Internet proxy before 11:59 p.m., Central European Summer Time (5:59 p.m. Eastern Daylight Time), on June 10, 2020, the day before the 2020 Annual General Meeting, for your proxy to be valid and your vote to count.
 2. **By Telephone:** To vote by telephone, please call 866-286-3217, and follow the instructions provided on the proxy card. If you vote by telephone, you do not need to complete and mail your proxy card or vote your proxy over the Internet. You must specify how you want your shares voted and confirm your vote at the end of the call, or your telephone vote cannot be completed. You must submit your telephonic proxy before 11:59 p.m., Central European Summer Time (5:59 p.m. Eastern Daylight Time), on June 10, 2020, the day before the 2020 Annual General Meeting, for your proxy to be valid and your vote to count.
 3. **By Mail:** To vote by mail, you must mark, sign and date the proxy card and then mail the proxy card in accordance with the instructions on the proxy card. If you vote by mail, you do not need to vote over the Internet or by telephone. Broadridge Financial Solutions, Inc. must receive the proxy card not later than June 10, 2020, the day before the 2020 Annual General Meeting, for your proxy to be valid and your vote to count. If you return your proxy card but do not specify how you want your shares voted on any particular matter, they will be voted in accordance with the recommendations of our Board of Directors.
 4. **In Person at the Meeting:** Due to the current spread of the SARS-CoV-2 virus (coronavirus) and the COVID-19 pandemic in Switzerland and globally, we strongly encourage all shareholders to vote by proxy instead of attending the 2020 Annual General Meeting in person, as the Board of Directors may be compelled to curtail or even prohibit the in-person attendance of shareholders at the 2020 Annual General Meeting. Please read the “Important Notice Regarding COVID-19 (Coronavirus) in Switzerland on page 6 of this Notice of Invitation to 2020 Annual General Meeting of Shareholders. If you attend the 2020 Annual General Meeting, you may deliver your completed proxy card in person or you may vote by completing a ballot, which we will provide to you at the meeting.

If your shares are held in “street name,” meaning they are held for your account by an intermediary, such as a broker, then you are deemed to be the beneficial owner of your shares, and the broker that actually holds the shares for you is the record holder and is required to vote the shares it holds on your behalf according to your instructions. The proxy materials, as well as voting and revocation instructions, should have been forwarded to you by the broker that holds your shares. In order to vote your shares, you will need to follow the instructions that your broker provides you. Many brokers solicit voting instructions over the Internet or by telephone.

If you do not give instructions to your broker, your broker will still be able to vote your shares with respect to certain “routine” items. The following proposals are considered routine items:

- Proposal No. 1 (approval of the annual report, the consolidated financial statements and statutory financial statements for the year ended December 31, 2019);
- Proposal No. 10 (re-election of the independent voting rights representative); and
- Proposal No. 11 (election of Ernst & Young AG as our statutory auditor and election of Ernst & Young LLP as our independent registered public accounting firm).

Accordingly, your broker may vote your shares in its discretion with respect to these proposals even if you do not give voting instructions.

Although brokers have discretionary authority to vote shares on “routine” matters, they do not have authority to vote shares on “non-routine” matters under applicable stock exchange rules. We believe that the following proposals to be voted on at the 2020 Annual General Meeting will be considered to be “non-routine” under the applicable stock exchange rules and, if you do not give your broker voting instructions on such proposals, your broker may not vote your shares with respect to these matters and your shares will be counted as “broker non-votes” with respect to the proposal. A “broker non-vote” occurs when shares held by a broker are not voted with respect to a particular proposal because the broker does not have or did not exercise discretionary authority to vote on the matter and has not received voting instructions from its clients. As a result, a broker non-vote is neither a vote cast nor a vote represented, respectively, in person or by proxy.

- Proposal No. 2 (approval of the appropriation of financial results);
- Proposal No. 3 (discharge of the members of the Board of Directors and Executive Committee);
- Proposal Nos. 4.a-4.h (election and re-election of eight directors and the chairman to our Board of Directors);
- Proposal Nos. 5.a-5.c (election and re-election of the members of the Compensation Committee);
- Proposal Nos. 6.a-6.e (compensation for the Board of Directors and the members of the Executive Committee);
- Proposal No. 7 (approval of an increase in the conditional capital for employee benefit plans);
- Proposal No. 8 (approval of an amendment to the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan);
- Proposal No. 9 (approval of increasing the maximum number of authorized share capital and extending the date by which the Board of Directors may increase the share capital);

You may not vote shares held in street name in person at the meeting, however, unless you obtain a legal proxy, executed in your favor, from the holder of record (i.e., your broker). A legal proxy is *not* the form of proxy included with this proxy statement. You will not be able to vote shares you hold in street name in person at the meeting unless you have a legal proxy from your broker or other nominee issued in your name giving you the right to vote your shares.

Q. Can I change my vote?

A. **If your shares are registered directly in your name**, you may revoke your proxy and change your vote at any time before the vote is taken at the 2020 Annual General Meeting. To do so, you must do one of the following:

1. Vote over the Internet or by telephone as instructed above. Only your latest Internet or telephone vote is counted.
2. Sign and return a new proxy card. Only your latest dated and timely received proxy card will be counted.
3. Subject to any restrictions imposed by Swiss authorities in connection with the spread of the SARS-CoV-2 virus and the COVID-19 epidemic, attend the 2020 Annual General Meeting and vote in person as instructed above. Attending the meeting will not alone revoke your Internet vote, telephone vote or proxy card submitted by mail, as the case may be. Please read the “Important Notice Regarding the Spread of the COVID-19 (Coronavirus) in Switzerland” on page 6 of this Notice of Invitation to 2020 Annual General Meeting of Shareholders for more information on in-person attendance. 4. Give our corporate secretary written notice before or at the 2020 Annual General Meeting that you want to revoke your proxy.

If your shares are held in “street name,” you may submit new voting instructions by contacting your broker or other nominee. You may also vote in person at the 2020 Annual General Meeting if you obtain a legal proxy as described in the answer above.

Q. How many shares must be represented to have a quorum and hold the 2020 Annual General Meeting?

A. There is no quorum requirement for the meeting. Under Swiss law, public companies do not have specific quorum requirements for shareholder meetings, and our Articles of Association do not otherwise provide for a quorum requirement.

Q. What vote is required to approve each matter and how are votes counted?

A. Each proposal, except proposals 7 and 9, requires the affirmative vote of a majority of the share votes cast (in person or by proxy) at the 2020 Annual General Meeting, excluding unmarked, invalid and non-exercisable votes and abstentions.

Proposals 7 and 9 require the affirmative vote of at least two thirds of the represented share votes (in person or by proxy) at the 2020 Annual General Meeting.

Q. How does the Board of Directors recommend that I vote on the proposals?

A. Our Board of Directors recommends that you vote “**FOR**” each of the proposals.

Q. Are there other matters to be voted on at the 2020 Annual General Meeting?

- A. We do not know of any matters that may come before the 2020 Annual General Meeting other than the proposals set forth in this notice. If any other matters are properly presented at the annual general meeting, the persons named in the accompanying proxy intend to vote, or otherwise act, in accordance with their judgment on the matter.

Q. Where can I find the voting results?

- A. We plan to announce preliminary voting results at the 2020 Annual General Meeting and will report final voting results in a Current Report on Form 8-K filed with the SEC within four business days following the end of the meeting.

Q. What are the costs of soliciting these proxies?

- A. We will bear the cost of soliciting proxies. In addition to solicitation by mail, our directors, officers and employees may solicit proxies by telephone, e-mail, facsimile and in person without additional compensation. We may reimburse brokers or persons holding shares in their names, or in the names of their nominees, for their expenses in sending proxies and proxy material to beneficial owners. We have retained Georgeson LLC to assist in the solicitation of proxies for a fee of approximately \$22,500 plus customary costs and expenses for these services.

Q. Whom should I contact if I have any questions?

- A. If you have any questions about the 2020 Annual General Meeting or your ownership of our common shares, please contact Michael Esposito, our Executive Director, Controller. He may be contacted before June 10, 2020 at 610 Main Street, Cambridge, Massachusetts 02139; telephone: +1 617-315-4600. Alternatively, any questions may be directed by e-mail to: secretary@crisprtx.com.

BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Election of Directors

Our Board of Directors is comprised of one class, with members holding office for one year terms. There are currently seven directors on our Board of Directors (Rodger Novak, M.D., Samarth Kulkarni, Ph.D., Bradley Bolzon, Ph.D., Ali Behbahani, M.D., Simeon J. George, M.D., John T. Greene, Katherine A. High, M.D.), whose terms expire at the 2020 Annual General Meeting, subject to such director's earlier death, resignation or removal.

Set forth below are the names and certain information for each member and nominee of the Board of Directors, as of March 15, 2020. The information presented includes each director and nominee's principal occupation and business experience for the past five years, and the names of other public companies of which he or she has served as a director during the past five years. The information presented below regarding the specific experience, qualifications, attributes and skills of each director and nominee led our nominating and corporate governance committee and our Board of Directors to conclude that he or she should serve as a director and be nominated for directorship at the 2020 Annual General Meeting. In addition, we believe that each director and nominee possesses the attributes or characteristics which the nominating and corporate governance committee expects of each director. These attributes and characteristics are further described in "—Corporate Governance Matters—Director Nomination Process." There are no family relationships among any of our directors or executive officers.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
Ali Behbahani, M.D. (1b)(2a)(2b)(3a)	43	Director
Bradley Bolzon, Ph.D. (2a)(2b)	60	Director
Simeon J. George, M.D. (1a)(1b)(3a)(3b)	43	Director
John T. Greene (1a)(1b)(3a)(3b)	54	Director
Katherine A. High, M.D. (2a)(2b)	68	Director
Samarth Kulkarni, Ph.D.	41	Chief Executive Officer
Rodger Novak, M.D.	52	Chairman and President
Douglas A. Treco, Ph.D. (3b)	62	Director nominee

(1a) Current member of the Compensation Committee.

(1b) Subject to and following the election of directors at the 2020 Annual General Meeting, will be a member of the Compensation Committee.

(2a) Current member of the Nominating and Corporate Governance Committee.

(2b) Subject to and following the election of directors at the 2020 Annual General Meeting, will be a member of the Nominating and Corporate Governance Committee.

(3a) Current member of the Audit Committee.

(3b) Subject to and following the election of directors at the 2020 Annual General Meeting, will be a member of the Audit Committee.

Nominee for Re-Election as Member and Chairman of the Board of Directors

Rodger Novak, M.D., Co-Founder, Chairman and President: Dr. Novak co-founded CRISPR Therapeutics AG in November 2013, has served as a director on our Board of Directors since inception, served as our Chief Executive Officer until December 1, 2017 and, since that date, has served as our President and since December 21, 2017 as our Chairman. Prior to joining our company, Dr. Novak served as Global Head Anti-infectives Research and Development at Sanofi, a pharmaceutical company. Prior to Sanofi, Dr. Novak co-founded Nabriva Therapeutics AG, a biopharmaceutical company, in January 2006, and served as its Chief Operating Officer from inception to May 2012. From March 2003 to January 2006, Dr. Novak served as the Deputy Head of the Antibiotic Research Institute at Sandoz GmbH. Dr. Novak was appointed as Professor for Microbiology at the Vienna Biocenter in March 2001. Dr. Novak received an M.D. from Philipps University of Marburg, Germany. He continued with post-doctoral work in New York City at The Rockefeller University, St. Jude Children's Research Hospital and the Skirball Institute of Biomolecular Medicine at NYU Langone Medical Center. Dr. Novak has authored numerous publications, including articles in Nature, Nature Medicine and Molecular Cell and is a co-inventor of five patents. We believe Dr. Novak's experience as our Chief Executive Officer, as well as his experience in the biopharmaceutical industry, qualifies him to serve on our Board of Directors.

Nominee for Election as Member

Douglas A. Treco, Ph.D.: Dr. Treco is a co-founder of Ra Pharmaceuticals, Inc. and has served as President and Chief Executive Officer and a member of its board of directors since its inception in 2008. Dr. Treco was an entrepreneur-in-residence with Morgenthaler Ventures between January 2008 and May 2014. In 1988, he co-founded Transkaryotic Therapies Inc., a multi-platform biopharmaceutical company that developed protein and gene therapy products, which was acquired in 2005 by Shire Pharmaceuticals Group plc. Dr. Treco was a visiting scientist in the Department of Molecular Biology at Massachusetts General Hospital and a lecturer in genetics at Harvard Medical School from 2004 to 2007. Dr. Treco received his Ph.D. in biochemistry and molecular biology from the State University of New York, Stony Brook, and performed postdoctoral studies at the Salk Institute for Biological Studies and Massachusetts General Hospital. We believe Dr. Treco's experience as an executive and scientific leader in the life sciences industry, in particular, his unique focus on rare disease, gene targeting, and gene therapy, qualifies him to serve on our Board of Directors.

Nominees for Re-Election as Member

Ali Behbahani, M.D., M.B.A., Director: Dr. Behbahani has served on our Board of Directors since April 2015. Dr. Behbahani joined New Enterprise Associates, Inc., or NEA, in 2007 and is a General Partner on the healthcare team. Dr. Behbahani has also served as a member of the board of directors of Adaptimmune Therapeutics plc, a biopharmaceutical company, since September 2014, Oyster Point Pharma, Inc., a biopharmaceutical company, since July 2017, Genocera Biosciences, Inc., a biopharmaceutical company, since February 2018 and Black Diamond Therapeutics, Inc., an oncology company, since December 2018. Dr. Behbahani previously served as a member of the board of directors of Nevro Corp., a medical device company, from August 2014 to March 2019. Prior to joining NEA, Dr. Behbahani served as a consultant in business development at The Medicines Company, a pharmaceutical company. In addition, Dr. Behbahani formerly served as a Venture Associate at Morgan Stanley and as a Healthcare Investment Banking Analyst at Lehman Brothers. Dr. Behbahani received an M.D. from the University of Pennsylvania School of Medicine, an M.B.A. from the Wharton School of the University of Pennsylvania and a B.S. in Biomedical Engineering, Electrical Engineering and Chemistry from Duke University. 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 on our Board of Directors.

Bradley Bolzon, Ph.D., Director: Dr. Bolzon has served on our Board of Directors since April 2014. Dr. Bolzon is Chairman and Managing Director of Versant Venture Management, LLC, where he has been employed since May 2004. Dr. Bolzon has also served as chairman and a member of the board of directors of Black Diamond Therapeutics, Inc., an oncology company, since December 2017. Dr. Bolzon previously served as a member of the board of directors of Flexion Therapeutics, Inc., a pharmaceutical company, from its inception in 2007 to June 2014. From February 2000 to May 2004, Dr. Bolzon served as Executive Vice President, Global Head of Business Development, Licensing & Alliances of F. Hoffman-La Roche Ltd., a pharmaceutical company. Dr. Bolzon also formerly served as Head of Cardiovascular Research at Eli Lilly and Company. Dr. Bolzon received a Ph.D. in Pharmacology and an M.S. in Pharmacology from the University of Toronto. He continued with post-doctoral work at the University of Ottawa Heart Institute. We believe Dr. Bolzon's experience in the biopharmaceutical industry qualifies him to serve on our Board of Directors.

Simeon J. George, M.D., Director: Dr. George has served on our Board of Directors since April 2015. Dr. George is the Chief Executive Officer and President of S.R. One, Limited, an indirect, wholly-owned subsidiary of GlaxoSmithKline plc, where he has been employed since 2007. Dr. George has also served as a director of Principia Biopharma Inc. since February 2011 and Turning Point Therapeutics, Inc. since May 2017. In addition, Dr. George previously served as a director on the boards of the following biotechnology companies: Progyny, Inc. from May 2012 to October 2019, HTG Molecular Diagnostics, Inc. from June 2011 to October 2015 and Genocera Biosciences, Inc. from April 2010 to December 2014. Dr. George also served as a consultant at Bain & Company from October 2006 to August 2007. Dr. George received an M.D. from the University of Pennsylvania School of Medicine, an M.B.A. from the Wharton School of the University of Pennsylvania, and a B.A. in Neuroscience from Johns Hopkins University. We believe Dr. George'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 on our Board of Directors.

John T. Greene, Director: Mr. Greene has served on our Board of Directors since June 2019. Since September 2019, Mr. Greene has served as Executive Vice President and Chief Financial Officer of Discover Financial Services. From November 2016 to April 2018, Mr. Greene served as Executive Vice President, Chief Financial Officer and Treasurer of Bioverativ, Inc., a global biopharmaceutical company. Prior to joining Bioverativ, Mr. Greene was the Chief Financial Officer of Willis Group Holdings, risk advisory, insurance and reinsurance brokerage company, from June 2014 until January 2016. Before joining Willis Group, Mr. Greene held senior executive roles at HSBC, the global financial services company, for eight years, including Chief Financial Officer for a business unit of HSBC, the global Retail Bank and Wealth Management business. Prior to HSBC, Mr. Greene worked for 12 years in various roles at General Electric Company. Mr. Greene has an undergraduate degree from the State University of New York, and an M.B.A. from Northwestern University’s Kellogg School of Management. We believe Mr. Greene’s experience in the biotechnology industry, as well as his experience as an executive at several large companies in other business sectors, qualifies him to serve on our Board of Directors.

Katherine A. High, M.D., Director: Dr. High has served on our Board of Directors since June 2019. Dr. High was a co-founder of Spark Therapeutics, Inc. and served as its President and a member of its board of directors from September 2014 to December 2019 and served as its Head of Research & Development from September 2017 to February 2020. Dr. High has also served as a director of Incyte Corporation since March 2020. From 2004 to 2014, Dr. High was a Professor at the Perelman School of Medicine at the University of Pennsylvania, an Investigator at Howard Hughes Medical Institute and the Director of the Center for Cellular and Molecular Therapeutics at the Children’s Hospital of Philadelphia. She completed a five-year term from 2000 to 2005 on the U.S. Food and Drug Administration Advisory Committee on Cell, Tissue and Gene Therapies and is a past president of the American Society of Gene & Cell Therapy. Dr. High holds an A.B. in chemistry from Harvard University, an M.D. from the University of North Carolina School of Medicine, a business certification from the University of North Carolina Business School Management Institute for Hospital Administrators and an honorary M.A. from The University of Pennsylvania. We believe Dr. High’s experience as an executive and scientific leader in the life sciences industry qualifies her to serve on our Board of Directors.

Samarth Kulkarni, Ph.D., Chief Executive Officer and Director: Dr. Kulkarni has served as our Chief Executive Officer since December 1, 2017 and a member of our Board of Directors since June 2018. Previous to that, Dr. Kulkarni served as our President and Chief Business Officer from May 2017 to November 30, 2017 and, before that, as our Chief Business Officer from August 2015 when he joined our company. Prior to joining our company, Dr. Kulkarni was at McKinsey & Company from 2006 to July 2015, with various titles, his most recent being Partner within the Pharmaceuticals and Biotechnology practice. Dr. Kulkarni has also served as a member of the board of directors of Black Diamond Therapeutics, Inc., an oncology company, since December 2019. Dr. Kulkarni received a Ph.D. in Bioengineering and Nanotechnology from the University of Washington and a B. Tech. from the Indian Institute of Technology. Dr. Kulkarni has authored several publications in leading scientific and business journals. We believe Dr. Kulkarni’s experience as our Chief Executive Officer, his previous experience as our President and Chief Business Officer, and his experience in the biopharmaceutical industry, qualifies him to serve on our Board of Directors.

Corporate Governance Matters

Our Board of Directors believes that good corporate governance is important to ensure that our company is managed for the long-term benefit of shareholders. This section describes key corporate governance guidelines and practices that our Board of Directors has adopted. Complete copies of our Organizational Rules, corporate governance guidelines, committee charters for each of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee, and Code of Business Conduct and Ethics are available on the “Investors & Media—Corporate Governance” section of our website, which is located at www.crisprtx.com. Alternatively, you can request a copy of any of these documents by writing us at CRISPR Therapeutics, Inc., 610 Main Street, Cambridge, Massachusetts 02139, Attention: Investor Relations.

Code of Business Conduct and Ethics

Our Board of Directors has adopted a Code of Business Conduct and Ethics, or the Code of Conduct, that is applicable to all of our employees, executive officers and directors, which is available on our website www.crisprtx.com. The Audit Committee of our Board of Directors is responsible for overseeing the Code of

Conduct. Approval of the Audit Committee is required for any waivers of the Code of Conduct for employees, executive officers and directors. Any amendments to the Code of Conduct, or any waivers of its requirements, will be disclosed on our website.

Board Leadership Structure and Risk Oversight

Board Leadership Structure

As a general policy, our Board of Directors believes that separation of the positions of chairman and chief executive officer reinforces the independence of the Board of Directors from management, creates an environment that encourages objective oversight of management's performance and enhances the effectiveness of the Board of Directors as a whole. Accordingly, we currently separate the roles of chief executive officer and chairman of the Board of Directors, with Dr. Kulkarni serving as our chief executive officer and Dr. Novak serving as chairman of the Board of Directors. As chief executive officer, Dr. Kulkarni is responsible for managing our executive leadership team and, together with that team, setting the strategic direction for our company and the day-to-day leadership and performance of our company, while the chairman of the Board of Directors presides over meetings of the Board of Directors, including executive sessions, and performs oversight responsibilities. Our Board of Directors has three standing committees that currently consist of, and are chaired by, independent directors. Our Board of Directors delegates substantial responsibilities to the committees, which then report their activities and actions back to the full Board of Directors. We believe that the independent committees of our Board of Directors and their chairpersons promote effective independent governance. We believe this structure represents an appropriate allocation of roles and responsibilities for our company at this time because it strikes an effective balance between management and independent leadership participation in our Board of Directors proceedings.

Risk Oversight

Our Board of Directors oversees the management of risks inherent in the operation of our business and the implementation of our business strategies. Our Board of Directors performs this oversight role by using several different levels of review. In connection with its reviews of the operations and corporate functions of our company, our Board of Directors addresses the primary risks associated with those operations and corporate functions. In addition, our Board of Directors reviews the risks associated with our company's business strategies periodically throughout the year as part of its consideration of undertaking any such business strategies.

Each committee of our Board of Directors also oversees the management of our company's risk that falls within the committee's areas of responsibility. In performing this function, each committee has full access to management, as well as the ability to engage advisors. Our chief executive officer reports to the Audit Committee and Board of Directors and is responsible for identifying, evaluating and implementing risk management controls and methodologies to address any identified risks. In connection with its risk management role, our Audit Committee meets privately with representatives from our independent registered public accounting firm and our chief executive officer. The Audit Committee oversees the operation of our risk management program, including the identification of the primary risks associated with our business and periodic updates to such risks, and reports to our Board of Directors regarding these activities.

Board Determination of Independence

Rule 5605 of the Nasdaq Listing Rules requires a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, the Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act, and Compensation Committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. Under Rule 5605(a)(2) of the Nasdaq Listing Rules, a director will only qualify as an "independent director" if, in the opinion of our Board of Directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3, a member of an Audit Committee of a listed company may not, other than in his or her capacity as a member of the Audit Committee, the Board of

Directors, or any other committee of the Board of Directors, accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries. In order to be considered independent for purposes of Rule 10C-1, the Board of Directors must consider, for each member of a Compensation Committee of a listed company, all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a Compensation Committee member, including, but not limited to: (1) the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director; and (2) whether the director is affiliated with the company or any of its subsidiaries or affiliates.

Our Board of Directors has undertaken a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our Board of Directors has determined that the following members of the Board of Directors, Ali Behbahani, M.D., Bradley Bolzon, Ph.D., Simeon J. George, M.D., John T. Greene and Katherine A. High, M.D., as well as the nominee to be elected to the Board of Directors at the 2020 Annual General Meeting, Douglas A. Treco, Ph.D., do not have any relationships that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these non-employee directors is "independent" as that term is defined under the applicable rules and regulations of the SEC, and the listing requirements and rules of the Nasdaq Listing Rules. In making this determination, our Board of Directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our Board of Directors deemed relevant in determining their independence, including the beneficial ownership of our common shares by each non-employee director.

Board of Director Meetings and Attendance

Our Board of Directors held seven formal meetings during 2019. During 2019, each of the directors then in office attended at least 75% of the aggregate of the number of Board of Directors meetings and the number of meetings held by all committees of the Board of Directors on which such director then served.

Although we do not have a formal policy regarding attendance by members of our Board of Directors at our annual general meeting, we encourage all of our directors to attend. All members of our board of directors who were then directors attended our 2019 annual general meeting of shareholders.

Communicating with the Independent Directors

Our Board of Directors will give appropriate attention to written communications that are submitted by shareholders, and will respond if and as appropriate. The chairman of the Board of Directors is primarily responsible for monitoring communications from shareholders and for providing copies or summaries to the other directors as he considers appropriate.

Shareholders who wish to send communications on any topic to our Board of Directors should address such communications to CRISPR Therapeutics AG, Baarerstrasse 14, 6300 Zug, Switzerland, Attn: General Counsel and Secretary, telephone +41 (0)41 561 32 77 and CRISPR Therapeutics, Inc., 610 Main Street, Cambridge, Massachusetts 02139, Attn: General Counsel and Secretary, telephone: +1 617 315-4600.

Committees of the Board of Directors

We have established an Audit Committee, a Compensation Committee, and a Nominating and Corporate Governance Committee. Each of these committees operates under a charter that has been approved by our Board of Directors. A copy of each committee's charter can be found under the "Investors & Media—Corporate Governance" section of our website, which is located at www.crisprtx.com.

Audit Committee

Our Audit Committee currently consists of Ali Behbahani, M.D., Simeon J. George, M.D., and John T. Greene and, subject to and following the election of directors at the 2020 Annual General Meeting, will consist of Simeon J. George, M.D., John T. Greene, and Douglas A. Treco, Ph.D. Our Board of Directors has determined that each current and proposed member of our Audit Committee is independent under the Nasdaq listing standards and Rule 10A-3(b)(1) of the Exchange Act. The chair of our Audit Committee is Mr. Greene, and if Mr. Greene is re-elected to the Board of Directors at the 2020 Annual General Meeting, Mr. Greene will continue serving as the chair of our Audit Committee. Our Board of Directors has determined that Mr. Greene is an “Audit Committee financial expert” within the meaning of SEC regulations. Our Board of Directors has also determined that each member of our Audit Committee can read and understand fundamental financial statements in accordance with applicable requirements. In arriving at these determinations, the Board of Directors has examined each Audit Committee member’s scope of experience and the nature of their employment in the corporate finance sector. The Audit Committee held four formal meetings during 2019.

The Audit Committee has the responsibility to, among other things:

- review and assess the qualifications, independence, performance and effectiveness of the independent auditor;
- review the scope of the prospective audit by the independent auditor, the estimated fees, and any other matters pertaining to the audit;
- approve any audit and non-audit services proposed to be provided by the independent auditor to ensure independent auditor independence;
- review and assess the independent auditor’s report, management letters and take notice of all comments of the independent auditor on accounting procedures and systems of control, and review the independent auditor’s reports with management;
- be responsible for the resolution of disagreements between the management and the independent auditor;
- review and evaluate the lead audit partner of the independent audit team and confirm and evaluate their rotation;
- review, discuss with the chief financial officer and the independent auditor and recommend that our Board of Directors approve (i) the quarterly financial statements, (ii) reports and releases intended for publication and (iii) any other financial statements intended for publication to consider significant financial reporting issues and judgments made in connection with the preparation of our financial statements, including any significant changes in our selection or application of accounting principles;
- review with the management and the independent auditor in separate meetings any analysis or other written communication prepared by the management and/or the independent auditor setting forth significant financial reporting issues and judgments made in connection with the preparation of the financial statements, including critical accounting policies, the effect of regulatory and accounting initiatives, as well as off-balance sheet transactions and structures on our financial statements;
- review and recommend that our Board of Directors approve our quarterly financial statements for the first three quarters of each calendar year and the corresponding financial results releases;
- review in cooperation with the independent auditor and the management whether the accounting principles applied are appropriate in view of our size and complexity;
- periodically review our policies and procedures for risk management and assess the effectiveness thereof including discussing with management our major financial risk exposures and the steps that have been taken to monitor and control such exposures;
- discuss with management and external advisors any legal matters that may have a material impact on our financial statements and any material reports or inquiries from regulatory or governmental agencies which could materially impact our contingent liabilities and risks;

- review our disclosure controls and procedures and internal control over financial reporting including significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting; recommend, based upon its review and discussions with management and the independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- prepare the Audit Committee report required by the rules of the SEC to be included in our annual proxy statement;
- establish procedures for the receipt, retention and treatment of complaints received regarding accounting, internal accounting controls or auditing matters, and the confidential, anonymous submission by employees of concerns regarding questionable accounting or auditing matters;
- approve any related person transaction in accordance with our related person transaction policy and inform the Board of Directors about the decision of the Audit Committee; and
- approve any activities in connection with legal actions, litigations or other official proceedings and inform the Board of Directors about any ongoing activities related to legal actions.

Compensation Committee

Our Compensation Committee currently consists of Simeon J. George, M.D. and John T. Greene and, subject to and following the election of directors at the 2020 Annual General Meeting, will consist of Ali Behbahani, M.D., Simeon J. George, M.D., and John T. Greene. Our Board of Directors has determined that each current and proposed member of our Compensation Committee is independent under the Nasdaq listing standards, is an outside director within the definition of Section 162(m) of the U.S. Internal Revenue Code of 1986, as amended, or the Code, and is a “non-employee director” for purposes of Rule 16b-3 promulgated by the SEC, and Rule 10C-1(b)(1) of the Exchange Act. The chair of our Compensation Committee is Dr. George, and if Dr. George is re-elected to the Board of Directors at the 2020 Annual General Meeting, Dr. George will continue serving as the chair of our Compensation Committee. The Compensation Committee held four formal meetings during 2019.

Our Compensation Committee has the responsibility to, among other things:

- review and recommend that our Board of Directors approve the compensation of our executive officers;
- review and recommend to our Board of Directors the compensation of our directors;
- review and recommend that our Board of Directors approve the terms of compensatory arrangements with our executive officers;
- review management succession plans;
- administer our share and equity incentive plans;
- select independent compensation consultants and assess whether there are any conflicts of interest with any of the committee’s compensation advisers;
- review and approve, or recommend that our Board of Directors approve, incentive compensation and equity plans, and any other compensatory arrangements for our executive officers and other senior management, as appropriate;
- review and establish general policies relating to compensation and benefits of our employees and reviewing our overall compensation philosophy; reviewing and discussing with management the compensation discussion and analysis to be included in our annual proxy statement or Annual Report on Form 10-K;
- annually review corporate goals and objectives relevant to the compensation of our chief executive officer and our other executive officers;

- evaluate the performance of our chief executive officer and our other executive officers in light of such corporate goals and objectives and make recommendations to the Board of Directors for approval of the compensation of our chief executive officer and our other executive officers based on such evaluation;
- review and approve the compensation of all members of our senior management (other than the executive officers), including with respect to any incentive-compensation plans and equity-based plans;
- review and establish our overall management compensation, philosophy and policy;
- oversee and administer our compensation and similar plans; and
- review and make such recommendations to the Board of Directors as deemed advisable with regard to our policies and procedures for the grant of equity-based awards.

Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee, or the Nominating Committee, consists of Ali Behbahani, M.D., Bradley Bolzon, Ph.D. and Katherine A. High, M.D. Our Board of Directors has determined that each member of the Nominating Committee is independent under the Nasdaq listing standards. The current chair of our Nominating Committee is Dr. Behbahani, and if Dr. Behbahani is re-elected to the Board of Directors at the 2020 Annual General Meeting, Dr. Behbahani will continue serving as the chair of our Nominating Committee. The Nominating Committee held three formal meetings during 2019.

The Nominating Committee has the responsibility to, among other things:

- identify, evaluate and select, or recommend that our Board of Directors approve, nominees for election to our Board of Directors;
- evaluate the performance of our Board of Directors and of individual directors;
- consider and make recommendations to our Board of Directors regarding the composition of the committees of the Board of Directors;
- review developments in corporate governance practices evaluate the adequacy of our corporate governance practices and reporting;
- develop and make recommendations to our Board of Directors regarding corporate governance practices, guidelines and matters; and
- oversee an annual evaluation of the Board of Directors' performance.

Director Nomination Process

The process followed by our Nominating Committee to identify and evaluate director candidates includes requests to board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the Nominating Committee and our Board of Directors.

Criteria and Diversity

In considering whether to recommend to our Board of Directors any particular candidate for inclusion in our Board of Directors' slate of recommended director nominees, including candidates recommended by shareholders, the Nominating Committee applies the criteria set forth in our corporate governance guidelines. These criteria include the candidate's experience at a strategic or policymaking level in a business, government, non-profit or academic organization of high standing, accomplishments in the candidate's respective field, the candidate's reputation for high ethical and moral standards, the candidate's time and ability to devote to the affairs of the company, and to the extent applicable, the candidates history of actively contributing to any boards of directors on which the candidate has previously served.

The director biographies set forth in this proxy statement indicate each nominee's experience, qualifications, attributes and skills that led our Nominating Committee and our Board of Directors to conclude he or she should continue to serve as a director. Our Nominating Committee and our Board of Directors believe that each of the nominees has the individual attributes and characteristics required of each of our directors, and the nominees as a group possess the skill sets and specific experience desired of our Board of Directors as a whole.

We do not have a policy (formal or informal) with respect to diversity, but we believe that our board, taken as a whole, should embody a diverse set of skills, experiences and backgrounds. In this regard, our Nominating Committee and our Board of Directors also take into consideration the diversity (with respect to gender, race and national origin) of our board members but do not make any particular weighting of diversity or any other characteristic in evaluating nominees and directors. Our Nominating Committee's and our Board of Directors' priority in selecting board members is identification of persons who will further the interests of our shareholders.

Shareholder Nominations

Under our Articles of Association, one or more registered shareholders who together represent shares representing at least the lesser of (i) ten percent of our issued share capital or (ii) an aggregate par value of one million Swiss francs may demand that an item be placed on the agenda of a meeting of shareholders. The relevant provisions of our Articles of Association regarding the right of one or more registered shareholders who together represent shares representing at least the lesser of (i) ten percent of our issued share capital or (ii) an aggregate par value of one million Swiss francs to demand that an item be placed on the agenda of a meeting of shareholders are available on our website at <http://ir.crisprtx.com>. You may also contact the General Counsel and Secretary of the Company at secretary@crisprtx.com to request a copy of the relevant provisions of our Articles of Association.

Nominations of director candidates by registered shareholders must follow the rules for shareholder proposals described under "Other Matters—Shareholder Proposals and Directors Nominations." Assuming that appropriate biographical and background material has been provided on a timely basis, the Nominating Committee will evaluate shareholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others. If the Board of Directors determines to nominate a shareholder-recommended candidate and recommends his or her election, then his or her name will be included in our proxy card for the next annual general meeting.

Compensation Committee Interlocks and Insider Participation

None of the members of our Compensation Committee and Nominating and Corporate Governance Committees is currently, or has been at any time, one of our officers or employees. None of our executive officers currently serves, or has served during the last year, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our Board of Directors, Compensation Committee, or Nominating Committee.

Policies and Procedures for Related Person Transactions

Our Board of Directors has adopted a written related person transaction policy to set forth policies and procedures for the review and approval or ratification of related person transactions. This policy covers any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant and any director or executive officer, director nominee, holder of 5% or more of any class of our voting securities or any member of the immediate family of or entities affiliated with any of the foregoing had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. Any such transaction must be presented to our Audit Committee for review, consideration and approval. In approving or rejecting any such proposal, our Audit Committee is to consider the relevant facts and circumstances available and deemed relevant to the Audit Committee, including, but not limited to, the extent of the related party's interest in the transaction, and whether the transaction is on terms no less favorable to us than terms we could have generally obtained from an unaffiliated third party under the same or similar circumstances.

Related Person Transactions

Other than the compensation arrangements for our named executive officers and directors, which are described elsewhere in the “Executive Compensation” and “Director Compensation” sections of this proxy statement, set forth below is a description of transactions since January 1, 2019 to which we were or are a party, and in which:

- the amounts involved exceeded or will exceed \$120,000; and
- any of our directors, executive officers, nominees for director or holders of more than 5% of our capital stock, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest.

Registration Rights Agreement

Pursuant to a Registration Rights Agreement, which became automatically effective upon the termination of the Shareholders’ Agreement at the closing of our initial public offering, or IPO, in October 2016, certain holders of our common shares, including certain holders of five percent of our capital stock and entities affiliated with certain of our directors, are entitled to certain rights with respect to registration of such shares under the Securities Act of 1933, as amended, or the Securities Act. These shares are referred to as registrable securities. As of March 15, 2020, no remaining holders of common shares are entitled to the demand, piggyback and Form S-3 registration rights described below.

The registration of registrable securities pursuant to the exercise of the registration rights would enable the holders to trade these registrable securities without restriction under the Securities Act when the applicable registration statement is declared effective. We will pay the registration expenses of the shares registered pursuant to the demand, piggyback and Form S-3 registrations described below.

Generally, in an underwritten offering, the underwriters, if any, have the right, subject to specified conditions, to limit the number of registrable securities the holders may include. The demand, piggyback and Form S-3 registration rights described below will expire on October 24, 2021, or with respect to any particular holder, at such time that such holder can sell its shares under Rule 144 of the Securities Act during any ninety-day period.

Demand Registration Rights

The holders of the registrable securities are entitled to certain demand registration rights. The holders of at least two-thirds (66 2/3%) of the registrable securities then outstanding may make a written request that we register all or a portion of their registrable securities, subject to certain specified exceptions. Such request for registration must cover securities the aggregate proceeds of which, after payment of underwriting discounts, commissions and other expenses related to such registration, would exceed \$10,000,000. In no event will we be required to effect more than two demand registrations.

Piggyback Registration Rights

If we propose to register for offer and sale any of our securities under the Securities Act in an offering for cash, either for our own account or for the account of other security holders, the holders of registrable securities will be entitled to certain “piggyback” registration rights allowing them to include their registrable securities in such registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act in connection with a public offering for our own account or for the account of any shareholder, the holders of these registrable securities are entitled to notice of the registration and have the right, subject to limitations that the underwriters may impose on the number of shares included in the registration, to include their registrable securities in the registration.

Form S-3 Registration Rights

The holders of registrable securities are entitled to certain Form S-3 registration rights. Any holder of registrable securities can make a request that we register for offer and sale all or any portion of their registrable securities on Form S-3 or any similar short form registration statement if we are qualified to file a registration statement on Form S-3, subject to certain specified exceptions. Such request for registration on Form S-3 must cover securities the aggregate offering price of which, before payment of the underwriting discounts and commissions, equals or exceeds \$2.0 million. We will not be required to effect more than one registration on Form S-3 within any 12-month period.

Bayer Joint Venture

In December 2015, we entered into a Joint Venture Agreement, or the JV Agreement, with Bayer HealthCare LLC, or Bayer, an affiliate of Bayer BV, or Bayer Healthcare, to create Casebia Therapeutics Limited Liability Partnership, or Casebia, to discover, develop and commercialize new therapeutics. Prior to the transactions described below, during the year ended December 31, 2019, we recognized \$0.5 million of revenue related to our collaboration with Casebia and research and development expense of \$0.5 million, which is net of \$0.2 million of reimbursements from Casebia.

In December 2019, we, Bayer Healthcare, certain subsidiaries and affiliates of us and Bayer Healthcare, and Casebia entered into a series of transactions by which, among other things, Casebia became a wholly-owned subsidiary of ours; we and Bayer Healthcare terminated the joint venture; and we and Bayer Healthcare entered into a new option agreement.

In connection with the termination of the JV Agreement, we entered into an agreement with Bayer Healthcare and Casebia pursuant to which Casebia retired Bayer Healthcare's outstanding partnership interests in exchange for up to \$22.0 million returned from Casebia operating cash less certain estimated interim operating expenses, subject to potential post-closing adjustments.

We and Bayer also entered into a new option agreement pursuant to which Bayer has an option to co-develop and co-commercialize two products for the diagnosis, treatment, or prevention of certain autoimmune disorders, eye disorders, or hemophilia A disorders for a specified period of time, or, under certain circumstances, exclusively license such optioned products. In the event Bayer elects to co-develop and co-commercialize a product, the parties will negotiate and enter into a co-development and co-commercialization agreement for such product, and Bayer would be responsible for 50% of the research and development costs incurred by us for such product going forward. Bayer would receive 50% of all profits from sales of such product and would be responsible for 50% of all losses. If Bayer elects to exercise its option to co-develop and co-commercialize a product, Bayer will make a one-time \$20.0 million payment to us that will become non-refundable once the parties execute a co-commercialization agreement with respect to such optioned product. In addition, for a specified exercise period, Bayer has a right to negotiate an exclusive license to develop and commercialize such optioned product.

For more information regarding these transactions, see the section entitled "Business—Strategic Partnerships and Collaborations—Bayer" in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 12, 2020.

Vertex Research Collaboration Agreement and Joint Development Agreement

In October 2015, we entered into a strategic research collaboration agreement, or the 2015 Collaboration Agreement, with Vertex Pharmaceuticals Incorporated, or Vertex, and one of its affiliates focused on the development of certain CRISPR/Cas9-based therapies. In December 2017, we and Vertex entered into a joint development and commercialization agreement, or the JDA, for the development and commercialization of hemoglobinopathy targets identified under the 2015 Collaboration Agreement as well as an amendment to the 2015 Collaboration Agreement, or the Amendment. In 2019, we received a one-time low seven-digit milestone payment upon the dosing of the second patient in a clinical trial with the initial product candidate under the JDA.

In June 2019, we entered into a strategic collaboration and license agreement, or the 2019 Collaboration Agreement, for the development and commercialization of products for the treatment of Duchenne Muscular Dystrophy, or DMD, and Myotonic Dystrophy Type 1, or DM1. Under the terms of the 2019 Collaboration Agreement, we received an upfront, nonrefundable payment of \$175.0 million. In addition, we are eligible to receive

potential future payments of up to \$825.0 million based upon the successful achievement of specified research, development, regulatory and commercial milestones for the DMD and DM1 programs. We are also eligible to receive tiered royalties on future net sales on any products that may result from this collaboration. For the DMD program, Vertex is responsible for all research, development, manufacturing and commercialization activities and all related costs. For the DM1 program, we will perform specified guide RNA research and Vertex is responsible for all other research, development, manufacturing and commercialization costs. Upon Investigational New Drug, or IND, application filing, we have the option to forego the DM1 milestones and royalties and instead, co-develop and co-commercialize all DM1 products globally in exchange for payment of 50% of research and development costs incurred by Vertex from the effective date of the agreement through IND filing.

In connection with the execution of the 2019 Collaboration Agreement, we and Vertex entered into a second amendment to the 2015 Collaboration Agreement, or Amendment No. 2. Among other things, Amendment No. 2 modified certain definitions and provisions of the 2015 Collaboration Agreement to make them consistent with the 2019 Collaboration Agreement and set forth the number and identity of the collaboration targets under the 2015 Collaboration Agreement. We and Vertex agreed that one of the four remaining options under the 2015 Collaboration Agreement, as amended, would not be exercised; instead, we reacquired the exclusive rights and will conduct research and development activities for the specified target. Vertex will have the option to co-develop and co-commercialize the specified target upon IND filing in exchange for payment of 50% of research and development costs incurred by us from the effective date of the agreement through IND filing. If Vertex does not exercise its option to co-develop and co-commercialize the specified target, Vertex is eligible to receive up to \$395.0 million in potential specified research, development, regulatory and commercial milestones and tiered single-digit royalties on future net sales.

In October 2019, Vertex exercised the remaining three options granted to it under the 2015 Collaboration Agreement to exclusively license the collaboration targets developed under the 2015 Collaboration Agreement, resulting in a payment of \$30.0 million to us in the fourth quarter of 2019.

During the year ended December 31, 2019, we recognized \$289.1 million of revenue related to our agreements with Vertex and research and development expense of \$29.2 million, which is net of \$15.9 million of reimbursements from Vertex. In addition, we recorded a non-cash charge to research and development of \$10.0 million associated with the Amendment No 2. to the Strategic Collaboration, Option and License Agreement.

For more information regarding these transactions, see the section entitled “Business—Strategic Partnerships and Collaborations—Vertex” in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 12, 2020.

EXECUTIVE OFFICERS

Certain information regarding our executive officers who are not also directors, as of March 15, 2020, is set forth below.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
Tony W. Ho, M.D.	54	Executive Vice President, Research and Development
James R. Kasinger	48	General Counsel and Secretary
Lawrence O. Klein, Ph.D.	37	Chief Business Officer & Chief Operating Officer
Michael J. Tomsicek	54	Chief Financial Officer

Tony W. Ho, M.D., Executive Vice President, Research and Development: Dr. Ho has served as our Executive Vice President, Research and Development since August 2017. Prior to joining our company, Dr. Ho held a number of roles at AstraZeneca between 2012 and 2017, where he most recently was Senior Vice President and Head of Oncology Integration and Innovation. Before that, he was Vice President and Global Medicine Leader, where he led the development and commercialization of two key drugs for AstraZeneca – Lynparza, a PARP inhibitor for ovarian cancer and Imfinizi (anti-PD-L1), AstraZeneca’s first immuno-oncology drug for bladder cancer. Prior to joining AstraZeneca, Dr. Ho was the Neurology and Ophthalmology Clinical Section Head at Merck Research Laboratories, Merck & Co., Inc. Earlier in his career, Dr. Ho was the co-founder and Chief Scientific Officer of Neuronyx, Inc., a regenerative medicine company. Dr. Ho completed his B.S. in Electrical Engineering at the University of California, Los Angeles, and received his M.D. from the Johns Hopkins University School of Medicine.

James R. Kasinger, General Counsel and Secretary: Mr. Kasinger has served as our General Counsel and Secretary since May 2017. Prior to joining our company, Mr. Kasinger served as the General Counsel and Secretary of Moderna, Inc., a biotechnology company, from April 2014 to May 2017. Prior to these roles, Mr. Kasinger was a partner at Goodwin Procter LLP, where he represented life sciences, technology and other high-growth companies. Mr. Kasinger started his legal career at Testa, Hurwitz & Thibault. Mr. Kasinger holds a J.D. from Boston College Law School and a B.A. from Wheaton College.

Lawrence O. Klein, Ph.D., Chief Business Officer & Chief Operating Officer: Dr. Klein has served as our Chief Business Officer since January 2019 and our Chief Business Officer and Chief Operating Officer since January 26, 2020; before that, Dr. Klein served as our Senior Vice President, Business Development and Strategy from November 15, 2017 through December 2018 and as our Vice President, Strategy from February 2016 to November 14, 2017. Before joining our company, from October 2014 to February 2016, Dr. Klein was an Associate Partner at McKinsey & Company, where he was a leader in the biotech practice and served a number of biotechnology companies on a wide range of topics from strategy to operations. Dr. Klein received a Ph.D. from Stanford University, where he conducted research in the field of T cell immunology, and he holds a B.S. from the University of Wisconsin at Madison.

Michael J. Tomsicek, Chief Financial Officer: Mr. Tomsicek has served as our Chief Financial Officer since November 2017. Prior to joining our company, Mr. Tomsicek served as Chief Financial Officer of Abiomed, a publicly-traded provider of medical devices, from July 2015 to August 2017. Before that, Mr. Tomsicek was Senior Vice President, Chief Financial Officer at Cubist Pharmaceuticals. He was at Cubist from August 2010 to January 2015 (through its sale to Merck) and held a series of roles of increasing responsibility leading finance, investor relations and strategic sourcing through a period of dynamic growth at the company. Prior to Cubist, Mr. Tomsicek spent nearly eight years at General Electric Healthcare, as finance manager in global operations, and then as chief financial officer of its ultrasound business. Mr. Tomsicek holds a B.S. in engineering and an M.B.A., both from the University of Wisconsin. Mr. Tomsicek has also served as a member of the board of directors of Milestone Pharmaceuticals Inc., a biopharmaceutical company, since April 2019.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

This Compensation Discussion and Analysis, or CDA, describes our executive compensation program and the 2019 compensation for our named executive officers, or NEOs. This CDA should be read with the compensation tables and related disclosures for our NEOs.

Our NEOs for 2019 were as follows:

- Samarth Kulkarni Ph.D., our Chief Executive Officer, or CEO;
- Tony W. Ho M.D., our Executive Vice President, Research and Development;
- James R. Kasinger, our General Counsel and Corporate Secretary;
- Lawrence O. Klein Ph.D., our Chief Business Officer and Chief Operating Officer; and
- Michael J. Tomsicek, our Chief Financial Officer.

Executive Summary

We are a leading gene editing company focused on the development of CRISPR/Cas9-based therapeutics. CRISPR/Cas9 stands for Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)/CRISPR-associated protein 9 (Cas9) and is a revolutionary technology for gene editing, the process of precisely altering specific sequences of genomic DNA. We aim to apply this technology to disrupt, delete, correct and insert genes to treat genetically-defined diseases and to engineer advanced cellular therapies. We believe that our scientific expertise, together with our gene-editing approach, may enable an entirely new class of highly effective and potentially curative therapies for patients with both rare and common diseases for whom current biopharmaceutical approaches have had limited success. Our most advanced programs target the genetically-defined diseases transfusion-dependent beta thalassemia, or TDT, and severe sickle cell disease, or SCD, two hemoglobinopathies with high unmet medical need. We are also progressing several gene-edited allogeneic cell therapy programs, beginning with three allogeneic chimeric antigen receptor T cell, or CAR-T candidates for the treatment of hematological and solid tumor cancers.

Corporate Performance Highlights

Our executive compensation program seeks to incentivize and reward strong corporate performance. Highlights of our 2019 corporate performance include:

- We, together with our partner Vertex, advanced our clinical development programs for CTX001TM, an investigational, autologous, CRISPR/Cas9 gene-edited hematopoietic stem cell therapy being evaluated for patients suffering from severe hemoglobinopathies:
 - ✓ For the Phase 1/2 open-label clinical trial, CLIMB THAL-111, in transfusion-dependent beta-thalassemia, or TDT: clinical enrollment of a certain number of patients.
 - ✓ For the Phase 1/2 open-label clinical trial, CLIMB SCD-121, in severe sickle cell disease, or SCD: clinical enrollment of a certain number of patients.
 - ✓ In November 2019, we and Vertex announced positive, preliminary data from the first two patients treated with CTX001 in the ongoing Phase 1/2 CLIMB clinical trials – one patient with TDT and one patient with severe SCD.
- We advanced multiple development programs within our wholly-owned allogeneic CRISPR/Cas9 gene-edited immuno-oncology portfolio, namely, CTX110TM (a CAR-T cell therapy targeting CD19 for the treatment of CD19+ malignancies), CTX120TM (a CAR-T cell therapy targeting B-cell maturation antigen (BCMA) for the treatment of multiple myeloma) and CTX130TM (a CAR-T cell therapy targeting CD70 for the treatment of both solid tumors and T-cell and B-cell hematologic malignancies).

- We established new collaborations including expanding our existing collaboration with Vertex to focus on the development and commercialization of products for the treatment of Duchenne muscular dystrophy and myotonic dystrophy type 1.
- We entered into a series of transactions pursuant to which we and Bayer terminated our 2015 agreement, which had created the joint venture Casebia to discover, develop and commercialize CRISPR/Cas9 gene-editing therapeutics to treat the genetic causes of bleeding disorders, autoimmune disease, blindness, hearing loss and heart disease. In connection thereto, Casebia became a wholly-owned subsidiary of ours. We and Bayer also entered into a new option agreement pursuant to which Bayer has an option to co-develop and co-commercialize two products for the diagnosis, treatment, or prevention of certain autoimmune disorders, eye disorders, or hemophilia A disorders for a specified period of time, or, under certain circumstances, exclusively license such optioned products.
- We raised over an aggregate of \$400 million in net proceeds from a follow-on offering of our common shares in the fourth quarter of 2019 and sales in 2019 under an Open Market Sale AgreementSM entered into with Jefferies LLC in August 2018.

Say-on-Pay

We have developed a compensation policy that is designed to attract and retain key executives responsible for our success and motivate management to enhance long-term shareholder value. We believe our compensation policy strikes an appropriate balance between the implementation of responsible, measured compensation practices and the effective provision of incentives for our named executive officers to exert their best efforts for our success. As part of our commitment to excellence in corporate governance, and as required by Section 14A(a)(1) of the Exchange Act, periodically we must provide our shareholders with an opportunity to provide an advisory vote related to the compensation of our named executive officers, commonly known as the “say-on-pay” proposal. The SEC say-on-pay vote generally covers the calendar year prior to the date of our proxy statement. As such vote is advisory, it is not binding upon the Board of Directors or the Compensation Committee and neither the Board of Directors nor the Compensation Committee are required to take any action as a result of the outcome of such vote. However, our Compensation Committee carefully considers the outcome of this vote when considering future executive compensation policies.

As reported in our current report on Form 8-K, filed with the SEC on June 13, 2019, at our 2019 annual general meeting, approximately 99% of the votes cast on our SEC Say-on-Pay proposal supported the compensation paid to our named executive officers.

Based on the results of a separate non-binding advisory shareholder vote on the frequency of future shareholder advisory votes regarding the compensation program for our named executive officers, commonly referred to as a “say-on-frequency” vote, held at our 2019 annual general meeting of shareholders, our Board of Directors determined that we will hold our say-on-pay vote every three years until the next required say-on-frequency vote. Our next say-on-frequency vote will occur no later than at our 2022 annual general meeting. We believe holding that vote every three years is appropriate given that we are required to seek say-on-pay votes under Swiss law annually (see below and Proposal 6), which provides our shareholders a consistent and clear communication channel for shareholder concerns about our executive pay programs.

In addition, pursuant to Swiss law and Article 18 of our Articles of Association, our shareholders must annually approve (i) the non-performance-related compensation of our Executive Committee for the 12-month period starting on July 1 following the annual general meeting, (ii) the variable compensation for the Executive Committee for the current calendar year and (iii) the grant of options or shares in the Company to the Executive Committee from the annual general meeting of shareholders to the next annual general meeting of shareholders. At our 2019 annual general meeting, shareholders approved the proposed compensation for the Executive Committee.

The Compensation Committee was mindful of shareholder support for our pay-for-performance compensation philosophy in maintaining our general compensation practices and setting fiscal year 2019 compensation for our Board of Directors and Executive Committee. We will continue to engage with our shareholders and consider the results from this year’s binding votes and future advisory and binding votes on board and executive compensation as well as feedback from our shareholders. For more information regarding our binding votes on aggregate compensation, see “Proposal 6 – Approval of Compensation for the Board of Directors and the Executive Committee.”

Overview of Executive Compensation Program

Executive Compensation Philosophy

Our executive compensation program is guided by our overarching philosophy of paying for demonstrable performance. Consistent with this philosophy, we have designed our executive compensation program to achieve the following primary goals:

- attract, motivate and retain top-performing senior executives;
- establish compensation opportunities that are competitive and reward performance; and
- align the interests of our senior executives with the interests of our shareholders to drive the creation of sustainable long-term value.

Executive Compensation Program Design

Our executive compensation program is designed to be reasonable and competitive, and balance our goal of attracting, motivating, rewarding and retaining top-performing senior executives with our goal of aligning their interests with those of our shareholders. The Compensation Committee annually evaluates our executive compensation program to ensure that it is consistent with our short-term and long-term goals and the dynamic nature of our business, and makes a recommendation to the Board of Directors.

Our executive compensation program consists of a mix of compensation elements that balance achievement of our short-term goals with our long-term performance. We provide short-term incentive compensation opportunities in the form of annual cash bonuses, which focus on our achievement of annual corporate goals. We also provide long-term incentive compensation opportunities in the form of equity awards.

Our executive compensation program is also designed to incorporate sound practices for compensation governance. Below we summarize such practices.

What We Do:

- ✓ ***Maintain an Independent Compensation Committee.*** The Compensation Committee consists solely of independent directors.
- ✓ ***Retain an Independent Compensation Advisor.*** The Compensation Committee engages its own compensation advisor to provide information and analysis related to annual executive compensation decisions, including the 2019 executive compensation decisions, and other advice on executive compensation independent of management.
- ✓ ***Review Executive Compensation Annually.*** The Compensation Committee annually reviews our compensation strategy, including a review and determination of our compensation peer group used for comparative purposes.
- ✓ ***Design Compensation At-Risk.*** Our executive compensation program is designed so that a significant portion of our NEO's compensation is "at risk" based on our corporate performance, as well as equity-based, to align the interests of our executive officers and shareholders.
- ✓ ***Use a Pay-for-Performance Philosophy.*** The majority of our NEOs' compensation is directly linked to corporate performance and includes a significant long-term equity component, thereby making a substantial portion of each NEO's total compensation dependent upon our stock price and/or total shareholder return.
- ✓ ***Use Double Trigger Change-in-Control Protection.*** Change-in-control payments and benefits to our NEOs occur only upon a qualifying termination of employment, not merely upon a change in control.

What We Don't Do:

- X ***No Executive Retirement Plans.*** We do not offer pension arrangements or retirement plans or arrangements to our executive officers that are different from or in addition to those offered to our other employees.
- X ***No Special Perquisites.*** We do not provide perquisites to our executive officers.
- X ***No Special Health and Welfare Benefits.*** Our executive officers participate in our health and welfare benefits programs on the same basis as our other employees.
- X ***No Post-Employment Tax Payment Reimbursement.*** We do not provide any tax reimbursement payments (including “gross-ups”) on any change-in-control or severance payments or benefits.
- X ***No Hedging or Pledging Our Equity Securities.*** We prohibit our executive officers, the members of our Board of Directors and certain other employees from hedging or pledging our securities.
- X ***No Stock Option Re-Pricing.*** Our 2016 Plan and 2018 Plan do not permit stock options to be repriced to a lower exercise or strike price without the approval of our shareholders.

Governance of Executive Compensation Program

Role of the Compensation Committee and the Board of Directors

The Compensation Committee discharges many of the responsibilities of our Board of Directors relating to the compensation of our executive officers, including our NEOs. The Compensation Committee oversees and evaluates our compensation and benefits policies generally, and the compensation plans, policies and practices applicable to our CEO and other executive officers. As described below, the Compensation Committee retains a compensation consultant to provide support in its review and assessment of our executive compensation program.

At the beginning of the year, the Compensation Committee reviews and recommends to the Board of Directors that it approve of the primary elements of compensation—base salary increases, annual cash bonuses, and annual equity awards—for our CEO and members of our Executive Committee (which includes our other NEOs). In addition, the Compensation Committee may deem it advisable to review and approve subsequent compensation opportunities for our NEOs, and may deem it advisable to recommend such opportunities to the Board of Directors for final review and approval.

Compensation-Setting Factors

When reviewing and recommending to the Board of Directors the amount of each compensation element and the target total compensation opportunity for our NEOs, the Compensation Committee considers the following factors:

- our performance against the annual corporate goals established by the Compensation Committee in consultation with management;
- each NEO's skills, experience and qualifications relative to other similarly-situated executives at the companies in our compensation peer group;
- the scope of each NEO's role compared to other similarly-situated executives at the companies in our compensation peer group;
- the performance of each NEO, based on an assessment of his or her contributions to our overall performance, ability to lead his or her department and work as part of a team, all of which reflect our core values;
- compensation parity among our NEOs and other executive officers;
- our retention goals;
- our financial performance relative to our peers;

- the compensation practices of our compensation peer group and the positioning of each NEO's compensation in a ranking of peer company compensation levels; and
- the recommendations provided by our CEO with respect to the compensation of our other NEO's and our other executive officers.

These factors provide the framework for compensation decisions for each of our executive officers, including our NEOs. The Compensation Committee and the Board of Directors, as applicable, do not assign relative weights or rankings to these factors, and do not consider any single factor as determinative in the compensation of our executive officers. Rather, the Compensation Committee and the Board of Directors, as applicable, rely on their own knowledge and judgment in assessing these factors and making compensation decisions.

Role of Management

In discharging its responsibilities, the Compensation Committee works with management, including our CEO. Our management assists the Compensation Committee by providing information on corporate and individual performance, market compensation data and management's perspective on compensation matters.

In addition, at the beginning of each year, our CEO reviews the performance of our other executive officers, including our other NEOs, based on our achievement of our annual corporate goals and each executive officer's achievement of his or her departmental and individual goals established for the prior year and his or her overall performance during that year. The Compensation Committee solicits and reviews our CEO's recommendations for base salary increases, annual cash bonuses, annual long-term incentive compensation and other compensation opportunities for our other executive officers, including our other NEOs, and considers our CEO's recommendations in determining such compensation, but has the authority to make the final decision independent of the CEO's recommendation.

Role of Compensation Consultant

The Compensation Committee engages an external compensation consultant to assist it by providing information, analysis and other advice relating to our executive compensation program. Since 2016 the Compensation Committee has engaged a third-party compensation consultant, Radford, an Aon Hewitt company, or Radford, to advise on executive compensation matters. For 2019, the Compensation Committee again engaged Radford as its compensation consultant to advise on executive compensation matters including:

- review and analysis of the compensation for our executive officers, including our NEOs;
- review and analysis of market practice and support in the consideration and amendment of our post-employment compensation policy for our executive officers;
- research, development and review of our compensation peer group; and
- support on other compensation matters as requested throughout the year.

Radford reports directly to the Compensation Committee and to the Compensation Committee chairman. Radford also coordinates with our management for data collection and job matching for our executive officers. Radford did not provide any other services to us in 2019. The Compensation Committee has evaluated Radford's independence pursuant to the listing standards of the relevant Nasdaq Listing Rules and SEC rules and has determined that no conflict of interest has arisen as a result of the work performed by Radford.

Role of Market Data

For purposes of comparing our executive compensation against the competitive market, the Compensation Committee reviews and considers the compensation levels and practices of a group of peer companies. This compensation peer group consists of public biotechnology companies that are similar to us in terms of revenue, market capitalization, stage of development, geographical location and number of employees. The Compensation Committee reviews our compensation peer group at least annually and makes adjustments to our peer group if necessary, taking into account changes in both our business and our peer companies' businesses.

In September 2018, the Compensation Committee, with the assistance of Radford, reviewed and updated our compensation peer group for 2019, referred to as our 2019 peer group, considering the acquisition of certain peer companies, the increase in our market capitalization, and the increase in our headcount, as reflected in the following criteria:

- publicly-traded companies primarily headquartered in the United States;
- companies in the biotechnology sector with a focus on gene editing and gene therapy;
- market value—in most cases, between \$800M and \$7.0B;
- the stage of development primarily pre-commercial companies through recently commercial companies;
- in general, companies that went public within the last 5 years; and
- similar headcount—in most cases, within a range of 100 and 800 employees.

Based on a review of the analysis prepared by Radford, the Compensation Committee approved the updated compensation peer group below for 2019.

2019 peer group

Accelaron Pharma	Audentes Therapeutics	REGENXBIO
Adaptimmune Therapeutics	bluebird bio	Sangamo Therapeutics
Aerie Pharmaceuticals	Blueprint Medicines	Spark Therapeutics
Agios Pharmaceuticals	CytomX Therapeutics	Ultragenyx Pharmaceuticals
Akcea Therapeutics	Editas Medicine	Voyager Therapeutics
Amicus Therapeutics	Epizyme	WAVE Life Sciences
AnaptysBio	Global Blood Therapeutics	Xencor
Arracy BioPharma	Intellia Therapeutics	
Atara Biotherapeutics	MyoKardia	

The Compensation Committee uses market data—from our compensation peer group and from the Radford Global Life Sciences Compensation survey—as one factor in evaluating whether the compensation for our executive officers is competitive in the market. We generally align compensation to the 60th percentile of our peer group. In addition, the Compensation Committee and the Board of Directors, as applicable, also rely on their own knowledge and judgment in evaluating market data and making compensation decisions.

Primary Elements of Executive Compensation Program

To achieve our compensation objectives, we provide executives with a total compensation package consisting primarily of the following fixed and variable compensation elements:

Compensation Element	Purpose
Base Salary	Recognize performance of job responsibilities and attract and retain individuals with superior talent
Annual Cash Incentive Program	Provide short-term incentives to attain key business objectives
Equity Incentive Awards	Promote the maximization of shareholder value by aligning the interests of our executive officers and shareholders

We do not have a specific policy regarding the percentage allocation between short-term and long-term, or fixed and variable, compensation elements.

Our executive officers, including our NEOs, are also eligible to participate in our standard employee benefit plans, such as our retirement, health and welfare benefits plans, on the same basis as our other employees. In addition, as described below, our executive officers, including our NEOs, are entitled to certain change-in-control payments and benefits, and our CEO is also entitled to certain termination payments and benefits not in connection with a change in control.

Base Salary

We pay base salaries to our executive officers, including our NEOs, as the fixed portion of their compensation to provide them with a reasonable degree of financial certainty, and to attract and retain top-performing individuals. At the time of hire, base salaries are determined for our executive officers, including our NEOs. Typically, at the beginning of each year, the Compensation Committee reviews base salaries for our executive officers, including our NEOs, to determine if an increase is appropriate. In addition, base salaries may be adjusted in the event of a promotion or significant change in responsibilities.

2019 Base Salary

In January 2019, the Compensation Committee reviewed the base salaries of our executive officers, including our NEOs. The Compensation Committee considered the factors described above under “Compensation-Setting Factors,” including an analysis prepared by Radford. Thereafter, the Compensation Committee recommended to the Board of Directors to adjust the annual base salaries of our NEOs set forth below, effective as of January 1, 2019, and the Board of Directors approved that recommendation.

The actual base salaries paid to our NEOs in 2019 are set forth in the “Summary Compensation Table” below.

	2018 Annual Base Salary	2019 Annual Base Salary	Percentage Increase (Decrease)
Samarth Kulkarni, Ph.D.	\$ 517,500	\$ 550,200	6.3%
Tony W. Ho, M.D.	\$ 415,976	\$ 431,575	3.8%
James R. Kasinger	\$ 357,182	\$ 376,900	5.5%
Lawrence O. Klein, Ph.D. (1)	\$ 340,000	\$ 360,400	6.0%
Michael J. Tomsicek	\$ 380,000	\$ 394,250	3.8%

- (1) Dr. Klein was not considered an NEO in 2018. He served as our Senior Vice President, Business Development and Strategy from November 15, 2017 to January 1, 2019. Dr. Klein was promoted to Chief Business Officer as of January 2, 2019, and was subsequently promoted to Chief Business Officer and Chief Operating Officer effective January 26, 2020.

Annual Cash Bonuses

We provide short-term incentive compensation opportunities to our executive officers, including our NEOs, in the form of annual cash bonuses to drive our short-term success under our senior executive cash incentive bonus plan. The annual cash bonus review provides that:

- the Compensation Committee will establish the annual corporate performance goals and weighting;
- the Compensation Committee will establish a target bonus opportunity for each executive;
- annual cash bonuses may not be paid unless and until the Compensation Committee makes a determination with respect to achievement of the annual corporate performance goals; and
- the Compensation Committee may adjust annual cash bonuses based on individual performance, and based on such other terms and conditions as it may in its discretion determine.

The Compensation Committee may also make certain immaterial rounding adjustments to the annual cash bonuses.

Corporate Performance Goals

At the end of each year, the Compensation Committee, after reviewing management's proposal, establishes the annual corporate performance goals that it believes will be the most significant drivers of our short-term and long-term success. The corporate performance goals include target achievement dates based on calendar quarters. The Compensation Committee then recommends to the Board of Directors that it approve of the proposed corporate performance goals. Each corporate performance goal has a percentage weighting, and may include an additional percentage weighting for overachievement, based on the Compensation Committee's assessment of the goal's relative significance. Each executive officer, including each NEO, is eligible to receive an annual performance-based cash bonus based primarily on achievement of corporate performance goals as assessed by our Compensation Committee and Board of Directors with input on individual performance achievement from our CEO. Each executive officer, including each NEO, has a target annual bonus award amount, expressed as a percentage of each NEO's base salary then in effect. After the fiscal year is completed, the Compensation Committee reviews actual performance against the stated goals and determines subjectively what it believes to be the appropriate level of cash bonus, if any, for our NEOs.

Further, as a general matter, at the end of the year for which the corporate performance goals have been established, the Compensation Committee, after reviewing management's self-assessment, evaluates our achievement of the prior year's corporate performance goals, and our overall success for the year, and determines our total percentage achievement level. The Compensation Committee then recommends to the Board of Directors that it approve of the total percentage achievement level.

In addition, our CEO evaluates the other executive officers' individual performance, including the other NEOs', and makes recommendations for total percentage achievement level. The Compensation Committee considers our CEO's recommendations, and independently reviews and approves the total percentage achievement level for each of the executive officers. The Compensation Committee then recommends to the Board of Directors that it approve the total percentage achievement level for each executive officer, including our NEOs.

For 2019, the actual bonus amounts for our NEOs were reviewed and approved by our Compensation Committee and the Board of Directors.

Target Annual Bonuses

At the beginning of each year, the Compensation Committee reviews the annual target bonuses for our executive officers, including our NEOs and, if appropriate, makes a recommendation to the Board of Directors to adjust the annual target bonus for our NEOs. The Compensation Committee considers the factors described above and benchmarking analyses prepared by Radford, with an emphasis on market data from our compensation peer group for comparable positions. Target annual bonuses are the same for executive officers, including our NEOs, who are at the same level, and represent a specific percentage of annual base salary.

2019 Target Annual Bonus

In January 2019, the Compensation Committee reviewed the target annual bonuses of our executive officers, including our NEOs. The Compensation Committee considered the factors described in the “Annual Cash Bonus” above as well as the benchmarking analyses prepared by Radford, particularly the market data from the companies in the compensation peer group. Thereafter, the Compensation Committee recommended to the Board of Directors to approve of the 2019 target annual bonuses of our NEOs below, and the Board of Directors accepted that recommendation and approved the same.

	2018 Target Annual Bonus	2019 Target Annual Bonus
Samarth Kulkarni, Ph.D.	50%	55%
Tony W. Ho, M.D.	45%	45%
James R. Kasinger	40%	40%
Lawrence O. Klein, Ph.D.	40%	40%
Michael J. Tomsicek	40%	40%

2019 Corporate Performance Goals

In November 2018, the Compensation Committee and the Board of Directors approved our 2019 annual corporate performance goals and weightings, as summarized below.

Category	Corporate Goal(s)	Weighting
Research & Development	<ul style="list-style-type: none"> Advance certain clinical activities related to beta-thalassemia & sick cell disease Advance clinical activities related to our lead I/O programs Advance additional programs Advance platform activities, including manufacturing 	75%
Non-Research & Development	<ul style="list-style-type: none"> Raise additional capital and continue scaling the organization, including advancing strategic partnerships and alliances 	25%

2019 Annual Cash Bonuses

In the fourth quarter of 2019, the Compensation Committee evaluated our achievement of the 2019 corporate performance goals, considering whether we had achieved each goal, the weighting established for each goal, management’s self-assessment, and our overall corporate performance in 2019. The Compensation Committee determined that we successfully achieved each of the 2019 corporate performance goals up to 140% achievement. Thereafter, the Compensation Committee recommended to the Board of Directors the foregoing, and the Board accepted that recommendation and approved the same.

In the first quarter of 2020, the Compensation Committee considered our CEO’s recommendations with respect to our executive officers, including our other NEOs, individual performance for 2019 and independently evaluated the same. Thereafter, the Compensation Committee recommended to the Board of Directors the total percentage achievement level based on corporate performance goals and individual performance for each of our executive officers, including our other NEOs, and the Board accepted that recommendation and approved the same.

The table below sets forth the target annual cash bonus each NEO was eligible to earn and the actual bonus amount earned by our NEOs for 2019.

	Target Annual Cash Bonus (\$)	Annual Cash Bonus (\$)
Samarth Kulkarni, Ph.D.	\$ 302,610	\$ 438,785
Tony W. Ho, M.D.	\$ 194,209	\$ 281,603
James R. Kasinger	\$ 150,760	\$ 218,602
Lawrence O. Klein, Ph.D.	\$ 144,160	\$ 209,032
Michael J. Tomsicek	\$ 157,700	\$ 228,665

Long-Term Incentive Compensation

We view long-term incentive compensation in the form of equity awards as an important element of our executive compensation program. The value of equity awards is directly related to share price appreciation over time, which incentivizes our executive officers to achieve long-term corporate goals and create long-term value for our shareholders. Equity awards also help us attract and retain top-performing executive officers in a competitive market.

As we mature as a company, we have evolved the mix of equity awards we grant and have started to deploy different equity vehicles consistent with the practice of our peer group companies. Notably, in 2019, our Compensation Committee and Board of Directors adjusted the mix of our equity awards to employees, including our NEOs, and started granting RSUs in addition to options. At the time of hire, equity awards are granted to our executive officers, including our NEOs. In addition, as a general practice, we grant a mix of equity awards during our annual employee performance cycle. For more information on our equity award grant policy, see “*Other Compensation Policies and Practices—Equity Award Grant Policy*” below.

At the beginning of each year, the Compensation Committee typically reviews the equity awards for our executive officers, including our NEOs, and determines the amounts of the annual equity awards it deems reasonable and appropriate based on the factors described above under “*Compensation-Setting Factors*” as well as the benchmarking analyses prepared by Radford. In addition, the Compensation Committee may deem it advisable to grant subsequent equity awards to our executive officers, in the event of a promotion, significant change in responsibilities, recognition for achievement of other performance milestones, recognition of other contributions to the Company, or for purposes of retention. See, for example, the complete list of equity awards granted to our NEOs in 2019 described below in the Grants of Plan-Based Awards for Fiscal Year 2019 table.

2019-2020 Annual Equity Awards Based on 2019 Performance

	Stock Options (Number of Shares)(1)	Restricted Stock Units (Number of Shares)(2)
Samarth Kulkarni, Ph.D. (3)	142,000	155,500
Tony W. Ho, M.D. (4)	55,000	53,750
James R. Kasinger (5)(8)	35,000	28,500
Lawrence O. Klein, Ph.D. (6)(8)	55,000	53,750
Michael J. Tomsicek (7)	35,000	28,500

- (1) The stock options vest, and become exercisable, over a four-year period, with 1/48th of the underlying shares vesting on a monthly basis after the vesting commencement date, so that all of the underlying shares will be vested on the date four years after the vesting commencement date, so long as the NEO remains an employee or other service provider.
- (2) Restricted stock units are subject to time-based vesting criteria established by the Compensation Committee. Vesting terms for restricted stock units granted in 2019 are described in the footnotes to the Outstanding Equity Awards at December 31, 2019 table below. Restricted stock units granted in March 2020 will vest annually over three years.

- (3) The equity incentive awards summarized above for Dr. Kulkarni reflect an award of 120,000 restricted stock units granted in December 2019, as well as an award of 142,000 stock options and 35,500 restricted stock units granted in March 2020. Dr. Kulkarni's December 2019 award was in part a retention and recognition award.
- (4) The equity incentive awards summarized above for Dr. Ho reflect an award of 40,000 restricted stock units granted in December 2019, as well as an award of 55,000 stock options and 13,750 restricted stock units granted in March 2020.
- (5) The equity incentive awards summarized above for Mr. Kasinger reflect an award of 20,000 restricted stock units granted in December 2019, as well as an award of 35,000 stock options and 8,500 restricted stock units granted in March 2020.
- (6) The equity incentive awards summarized above for Dr. Klein reflect an award of 40,000 restricted stock units granted in December 2019, as well as an award of 55,000 stock options and 13,750 restricted stock units granted in March 2020.
- (7) The equity incentive awards summarized above for Mr. Tomsicek reflect an award of 20,000 restricted stock units granted in December 2019, as well as an award of 35,000 stock options and 8,500 restricted stock units granted in March 2020.
- (8) See the Grants of Plan-Based Awards for Fiscal Year 2019 table below for information regarding an additional award of restricted stock units to Mr. Kasinger in September 2019 and additional option and restricted stock unit awards to Dr. Klein in January 2019 and September 2019.

Other Employee Benefits

Health and Welfare Benefits

Our executive officers, including our NEOs, are eligible to participate in the same employee benefit plans that are generally available to all of our employees, subject to the satisfaction of certain eligibility requirements, such as medical, dental, and life and disability insurance plans. We pay, on behalf of our employees, the premiums for health, life and disability insurance.

401(k) Savings Plan

Our U.S. executive officers, including our NEOs, are eligible to participate in a tax-qualified retirement plan, or the 401(k) Plan, on the same basis as our other employees. The 401(k) Plan provides eligible U.S. employees with an opportunity to save for retirement on a tax advantaged basis. Eligible employees are able to defer eligible compensation subject to applicable annual Code limits. Employees' pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. Employees are fully vested in their contributions. Our 401(k) Plan is intended to be qualified under Section 401(a) of the Code with our 401(k) Plan's related trust intended to be tax exempt under Section 501(a) of the Code. As a tax-qualified retirement plan, contributions to our 401(k) Plan and earnings and matching amounts on those contributions are not taxable to the employees until distributed from our 401(k) Plan. We have the ability to make matching contributions under the 401(k) plan and contributed approximately \$1.1 million in matching contributions for 2019.

Special Perquisites

We do not provide special perquisites to our executive officers, including our NEOs.

Employment Arrangements with our NEOs

We have entered into employment agreements with each of our NEO's in connection with their employment with us. These employment agreements provide for "at will" employment.

Samarth Kulkarni. In October 2017, we entered into a second amended and restated employment agreement with Dr. Kulkarni. As of January 1, 2020, Dr. Kulkarni receives an annual base salary in an amount equal to \$625,000, and Dr. Kulkarni's annual target bonus is currently set at not less than 60% of his salary. Dr. Kulkarni is also eligible to participate in our employee benefit plans on the same terms as other executives.

Under Dr. Kulkarni's employment agreement, in the case of a termination by us without cause or by Dr. Kulkarni for good reason (in each case, as defined under the employment agreement), he is entitled to twelve months' notice, or the notice period. During such notice period, and subject to Dr. Kulkarni's execution of a release of claims in favor of us, Dr. Kulkarni would continue to receive base salary, benefits and, except to the extent the applicable equity award agreements provided otherwise, continued vesting during such period and would be entitled to receive an amount equal to his target bonus for the year in which the termination occurs, prorated based upon the number of days in the notice period.

During the notice period, Dr. Kulkarni will be placed on garden leave on the 15th day following receipt of the notice (or such earlier date as we may determine in its sole discretion), and we will be required to release Dr. Kulkarni from his working obligations for the remainder of the notice period. During this period of garden leave, Dr. Kulkarni may enter into other employment or consulting arrangements and accept board positions with other companies. However, Dr. Kulkarni will continue to be entitled to all compensation under his employment agreement through the garden leave period.

In the case of a notice of termination by us without cause or by Dr. Kulkarni for good reason, in each case, that occurs on or within 12 months following a change in control, all vesting or similar restrictions on any equity awards held by Dr. Kulkarni will vest and become exercisable or nonforfeitable upon the date of such termination, subject to his execution of a release. However, in the event we determine at the time of the change in control, based upon an opinion of counsel, that the acceleration described in the preceding sentence is not permissible under applicable law, all stock options and stock-based awards held by Dr. Kulkarni as of the date of the change in control, would vest and become exercisable or nonforfeitable as of the date of the change in control.

Tony W. Ho. In August 2017, and we entered into an employment agreement with Dr. Ho. As of January 1, 2020, Dr. Ho receives an annual base salary in an amount equal to \$451,000, and Dr. Ho's annual target bonus is currently set at not less than 45% of his salary. Dr. Ho is also eligible to participate in our employee benefit plans on the same terms as other executives.

Under Dr. Ho's employment agreement, in the case of a termination by us without cause or by Dr. Ho for good reason (in each case, as defined under the employment agreement), he is entitled to six months' notice, or the notice period; provided, that, in the case of a notice of termination by us without cause or by Dr. Ho for good reason that occurs within 12 months following a change in control, the notice period shall be 12 months. During such notice period, and subject to Dr. Ho's execution of a release of claims in favor of us, Dr. Ho would continue to receive base salary, benefits and continued vesting during such period and would be entitled to receive an amount equal to his target bonus for the year in which the termination occurs, prorated based upon the number of days in the notice period.

During the notice period, Dr. Ho will be placed on garden leave on the 15th day following receipt of the notice (or such earlier date as we may determine in its sole discretion), and we will be required to release Dr. Ho from his working obligations for the remainder of the notice period. During this period of garden leave, Dr. Ho may enter into other employment or consulting arrangements and accept board positions with other companies. However, Dr. Ho will continue to be entitled to all compensation under his employment agreement through the garden leave period.

In the case of a notice of termination by us without cause or by Dr. Ho for good reason, in each case, that occurs on or within 12 months following a change in control, all vesting or similar restrictions on any equity awards held by Dr. Ho will vest and become exercisable or nonforfeitable upon the date of such termination, subject to his execution of a release. However, in the event we determine at the time of the change in control, based upon an opinion of counsel, that the acceleration described in the preceding sentence is not permissible under applicable law, all stock options and stock-based awards held by Dr. Ho as of the date of the change in control, would vest and become exercisable or nonforfeitable as of the date of the change in control.

James R. Kasinger. In May 2017, we entered into an employment agreement with Mr. Kasinger. As of January 1, 2020, Mr. Kasinger receives an annual base salary in an amount equal to \$403,500, and Mr. Kasinger's annual target bonus is currently set at 40% of his annual base salary. Mr. Kasinger is also eligible to participate in our employee benefit plans on the same terms as other executives.

Under Mr. Kasinger's employment agreement, in the case of a termination by us without cause or by Mr. Kasinger for good reason (in each case, as defined under the employment agreement), he is entitled to six months' notice, or the notice period; provided, that, in the case of a notice of termination by us without cause or by Mr. Kasinger for good reason that occurs within 12 months following a change in control, the notice period shall be 12 months. During such notice period, and subject to Mr. Kasinger's execution of a release of claims in favor of us, Mr. Kasinger would continue to receive base salary, benefits and continued vesting during such period and would be entitled to receive an amount equal to his target bonus for the year in which the termination occurs, prorated based upon the number of days in the notice period.

During the notice period, Mr. Kasinger will be placed on garden leave on the 15th day following receipt of the notice (or such earlier date as we may determine in its sole discretion), and we will be required to release Mr. Kasinger from his working obligations for the remainder of the notice period. During this period of garden leave, Mr. Kasinger may enter into other employment or consulting arrangements and accept board positions with other companies. However, Mr. Kasinger will continue to be entitled to all compensation under his employment agreement through the garden leave period.

In the case of a notice of termination by us without cause or by Mr. Kasinger for good reason, in each case, that occurs on or within 12 months following a change in control, all vesting or similar restrictions on any equity awards held by Mr. Kasinger will vest and become exercisable or nonforfeitable upon the date of such termination, subject to his execution of a release. However, in the event we determine at the time of the change in control, based upon an opinion of counsel, that the acceleration described in the preceding sentence is not permissible under applicable law, all stock options and stock-based awards held by Mr. Kasinger as of the date of the change in control, would vest and become exercisable or nonforfeitable as of the date of the change in control.

Lawrence O. Klein. In January 2019, we entered into an employment agreement with Dr. Klein. As of January 1, 2020, Dr. Klein receives an annual base salary in an amount equal to \$420,000, and Dr. Klein's annual target bonus is currently set at 40% of his annual base salary. Dr. Klein is also eligible to participate in our employee benefit plans on the same terms as other executives.

Under Dr. Klein's employment agreement, in the case of a termination by us without cause or by Dr. Klein for good reason (in each case, as defined under the employment agreement), he is entitled to six months' notice, or the notice period; provided, that, in the case of a notice of termination by us without cause or by Dr. Klein for good reason that occurs within 12 months following a change in control, the notice period shall be 12 months. During such notice period, and subject to Dr. Klein's execution of a release of claims in favor of us, Dr. Klein would continue to receive base salary, benefits and continued vesting during such period and would be entitled to receive an amount equal to his target bonus for the year in which the termination occurs, prorated based upon the number of days in the notice period.

During the notice period, Dr. Klein will be placed on administrative leave on the 15th day following receipt of the notice (or such earlier date as we may determine in its sole discretion), and we will be required to release Dr. Klein from his working obligations for the remainder of the notice period. During this period of administrative leave, Dr. Klein may enter into other employment or consulting arrangements and accept board positions with other companies. However, Dr. Klein will continue to be entitled to all compensation under his employment agreement through the administrative leave period.

In the case of a notice of termination by us without cause or by Dr. Klein for good reason, in each case, that occurs on or within 12 months following a change in control, all vesting or similar restrictions on any equity awards held by Dr. Klein will vest and become exercisable or nonforfeitable upon the date of such termination, subject to his execution of a release. However, in the event we determine at the time of the change in control, based upon an opinion of counsel, that the acceleration described in the preceding sentence is not permissible under applicable law, all stock options and stock-based awards held by Dr. Klein as of the date of the change in control, would vest and become exercisable or nonforfeitable as of the date of the change in control.

Michael J. Tomsicek. In November 2017, we entered into an employment agreement with Mr. Tomsicek. As of January 1, 2020, Mr. Tomsicek receives an annual base salary in an amount equal to \$422,000, and Mr. Tomsicek's annual target bonus is currently set at 40% of his annual base salary. Mr. Tomsicek is also eligible to participate in our employee benefit plans on the same terms as other executives.

Under Mr. Tomsicek's employment agreement, in the case of a termination by us without cause or by Mr. Tomsicek for good reason (in each case, as defined under the employment agreement), he is entitled to six months' notice, or the notice period; provided, that, in the case of a notice of termination by us without cause or by Mr. Tomsicek for good reason that occurs within 12 months following a change in control, the notice period shall be 12 months. During such notice period, and subject to Mr. Tomsicek's execution of a release of claims in favor of us, Mr. Tomsicek would continue to receive base salary, benefits and continued vesting during such period and would be entitled to receive an amount equal to his target bonus for the year in which the termination occurs, prorated based upon the number of days in the notice period.

During the notice period, Mr. Tomsicek will be placed on garden leave on the 15th day following receipt of the notice (or such earlier date as we may determine in its sole discretion), and we will be required to release Mr. Tomsicek from his working obligations for the remainder of the notice period. During this period of garden leave, Mr. Tomsicek may enter into other employment or consulting arrangements and accept board positions with other companies. However, Mr. Tomsicek will continue to be entitled to all compensation under his employment agreement through the garden leave period.

In the case of a notice of termination by us without cause or by Mr. Tomsicek for good reason, in each case, that occurs on or within 12 months following a change in control, all vesting or similar restrictions on any equity awards held by Mr. Tomsicek will vest and become exercisable or nonforfeitable upon the date of such termination, subject to his execution of a release. However, in the event we determine at the time of the change in control, based upon an opinion of counsel, that the acceleration described in the preceding sentence is not permissible under applicable law, all stock options and stock-based awards held by Mr. Tomsicek as of the date of the change in control, would vest and become exercisable or nonforfeitable as of the date of the change in control.

Other Agreements

Employee Confidentiality, Non-Competition, Non-solicitation And Assignment Agreements

Each of our NEOs has entered into an agreement with respect to confidential information and assignment of inventions. Among other things, this agreement obligates each NEO to refrain from disclosing any of our proprietary information received during the course of employment and to assign to us any inventions conceived or developed during the course of employment. In addition, our NEOs are also subject to certain non-competition and/or non-solicitation obligations as set forth in their respective employment agreements.

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers. In addition, subject to Swiss law, Article 29 of our Articles of Association provides for indemnification of the existing and former members of the Board of Directors, executive management and their heirs, executors and administrators, against liabilities arising in connection with the performance of their duties in such capacity, and permits us to advance the expenses of defending any act, suit or proceeding to our directors and executive management.

Furthermore, under general principles of Swiss employment law, an employer may be required to indemnify an employee against losses and expenses incurred by such employee in the proper execution of their duties under the employment agreement with the employer. In addition, as is customary for Swiss corporations and in accordance with Article 698, subsection 2, item 5 of the Swiss Code of Obligations, shareholders are requested to discharge the members of the Board of Directors and the Executive Committee from liability for the past business year. Discharge pursuant to the proposed resolution is only effective with respect to facts that have been disclosed to shareholders and only binds shareholders who either voted in favor of the proposal or who subsequently acquired shares with knowledge that the shareholders have approved this proposal.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Other Compensation Policies and Practices

Equity Award Grant Policy

We have adopted an equity award grant policy that sets forth the process and timing for us to follow when we grant equity awards to our employees, including our executive officers, or advisors or consultants to us pursuant to any of our equity compensation plans. Pursuant to the policy, all grants of equity awards must be approved in advance by, as applicable, our Board of Directors, the Compensation Committee or, subject to the delegation requirements in the policy, our CEO.

- Each year, the Compensation Committee recommends to the Board of Directors, and the Board of Directors approves, an annual budget for all equity awards to be made during that year.
- Annual equity awards to employees, including our NEOs, are granted twice yearly, with the initial award made during the third or fourth quarter of the year for which the equity grant is awarded and the remainder of the annual equity grant is awarded during the first quarter of the following year.
- The Board of Directors has delegated to our CEO the ability to grant equity awards to existing and new employees (senior vice president and below), consultants and other qualified individuals provided that such grants are consistent with the equity award grant policy and related guidelines that are reviewed and approved annually by the Compensation Committee.
- Equity awards to our NEOs and members of the Board of Director are effective on the date of approval by our Board of Directors, or such later date as specified in such approval. Our Board of Directors retains the discretion to grant equity awards at other times to the extent appropriate for such awards.

In addition, our equity award grant policy sets forth the manner in which our equity awards will be priced. The dollar value of restricted stock and restricted stock units will be determined by multiplying the number of shares of our common stock underlying the award by the closing market price on the Nasdaq Global Market of a share of our common stock on the effective date of grant. The exercise price of all stock options will be at least equal to the closing market price on the Nasdaq Global Market of our common shares on the effective date of grant.

Policy Prohibiting Hedging and Pledging

Our Insider Trading Policy prohibits our executive officers, the non-employee members of our Board of Directors and certain designated employees who in the course of the performance of their duties have access to material, nonpublic information regarding our company from engaging in the following transactions:

- selling any of our securities that they do not own at the time of the sale (a “short sale”);
- buying or selling puts, calls, other derivative securities of our company or any derivative securities that provide the economic equivalent of ownership of any of our securities or an opportunity, direct or indirect, to profit from any change in the value of our securities or engaging in any other hedging transaction with respect to our securities at any time without the prior approval of the Audit Committee;
- using our securities as collateral in a margin account; and
- pledging our securities as collateral for a loan (or modifying an existing pledge) unless the pledge has been approved by the Audit Committee.

As of the date of this proxy statement, none of our NEOs had previously sought or obtained approval from the Audit Committee to engage in any hedging or pledging transaction involving our securities.

Tax and Accounting Considerations

Deductibility of Executive Compensation

Generally, Section 162(m) of the Code, or Section 162(m), disallows a federal income tax deduction for public corporations of remuneration in excess of \$1 million paid in any fiscal year to certain specified executive officers. For taxable years beginning before January 1, 2018 (i) these executive officers consisted of a public corporation’s chief executive officer and up to three other executive officers (other than the chief financial officer) whose compensation is required to be disclosed to shareholders under the Securities Exchange Act of 1934 because they are our most highly-compensated executive officers and (ii) qualifying “performance-based compensation” was not subject to this deduction limit if specified requirements are met.

Pursuant to the Tax Cuts and Jobs Act of 2017, which was signed into law on December 22, 2017, or the Tax Act, for taxable years beginning after December 31, 2017, the remuneration of a public corporation’s chief financial officer is also subject to the deduction limit. In addition, subject to certain transition rules (which apply to remuneration provided pursuant to written binding contracts which were in effect on November 2, 2017 and which are not subsequently modified in any material respect), for taxable years beginning after December 31, 2017, the exemption from the deduction limit for “performance-based compensation” is no longer available. Consequently, for fiscal years beginning after December 31, 2017, all remuneration in excess of \$1 million paid to a specified executive will not be deductible.

In designing our executive compensation program and determining the compensation of our executive officers, including our NEOs, the Compensation Committee considers a variety of factors, including the potential impact of the Section 162(m) deduction limit. However, the Compensation Committee will not necessarily limit executive compensation to that which is or may be deductible under Section 162(m). The deductibility of some types of compensation depends upon the timing of an executive officer’s vesting or exercise of previously granted rights. Further, interpretations of and changes in the tax laws, and other factors beyond the Compensation Committee’s control also affect the deductibility of compensation. The Compensation Committee will consider various alternatives to preserving the deductibility of compensation payments and benefits to the extent consistent with its compensation goals.

To maintain flexibility to compensate our executive officers in a manner designed to promote our short-term and long-term corporate goals, the Compensation Committee has not adopted a policy that all compensation must be deductible. The Compensation Committee believes that our shareholders' interests are best served if its discretion and flexibility in awarding compensation is not restricted in order to allow such compensation to be consistent with the goals of our executive compensation program, even though some compensation awards may result in non-deductible compensation expense.

Accounting for Stock-Based Compensation

We follow the Financial Accounting Standard Board's Accounting Standards Codification Topic 718, or FASB ASC Topic 718, for our stock-based compensation awards. FASB ASC Topic 718 requires us to measure the compensation expense for all share-based payment awards made to our employees and non-employee members of our Board of Directors, including stock options to purchase shares of our common stock and other stock awards, based on the grant date "fair value" of these awards. This calculation is performed for accounting purposes and reported in the executive compensation tables required by the federal securities laws, even though the recipient of the awards may never realize any value from their awards.

Taxation of "Parachute" Payments

Sections 280G and 4999 of the Code provide that executive officers and directors who hold significant equity interests and certain other service providers may be subject to significant additional U.S. taxes if they receive payments or benefits in connection with a change in control of the company that exceeds certain prescribed limits, and that the company (or a successor) may forfeit a deduction on the amounts subject to this additional tax. We have not agreed to provide any executive officer, including any NEO, with a "gross-up" or other reimbursement payment for any tax liability that the executive officer might owe as a result of the application of Sections 280G or 4999 of the Code.

Section 409A of the Internal Revenue Code

Section 409A of the Code imposes additional significant taxes in the event that an executive officer, director or service provider receives "deferred compensation" that does not satisfy the requirements of Section 409A of the Code. Although we do not maintain a traditional nonqualified deferred compensation plan, Section 409A of the Code does apply to certain severance arrangements, bonus arrangements and equity awards. We structure all our severance arrangements, bonus arrangements and equity awards in a manner to either avoid the application of Section 409A or, to the extent doing so is not possible, to comply with the applicable requirements of Section 409A of the Code.

NEO Compensation Tables

Summary Compensation Table

The following table sets forth information regarding total compensation awarded to, earned by and paid to each of our NEOs during the fiscal years ended December 31, 2019, 2018 and 2017, to the extent he was a NEO in such year.

Name	Year	Salary	Bonus	Share	Option	Non-Equity	All Other	Total
				Awards	Awards	Incentive	Compensation	
				(1)	(1)	(2)	(3)	
Samarth Kulkarni, Ph.D. (4) <i>Chief Executive Officer</i>	2019	\$550,200	\$ —	\$8,775,600	\$6,495,579	\$ 438,785	\$ 5,568	\$16,265,732
	2018	\$517,500	\$ —	\$ —	\$8,841,070	\$ 357,075	\$ 9,625	\$ 9,725,270
	2017	\$404,650	\$ —	\$ 506,406	\$5,816,201	\$ 196,264	\$ 10,744	\$ 6,934,265
Tony W. Ho, M.D. (5) <i>EVP, Research and Development</i>	2019	\$431,575	\$ —	\$3,333,900	\$1,948,674	\$ 281,603	\$ 9,800	\$ 6,005,552
	2018	\$415,976	\$ —	\$ —	\$3,466,188	\$ 258,321	\$ 9,625	\$ 4,150,110
	2017	\$170,833	\$100,000 (5)	\$1,267,500	\$2,843,484	\$ 92,199	\$ —	\$ 4,474,016
James R. Kasinger (5) <i>General Counsel</i>	2019	\$376,900	\$ —	\$1,924,600	\$1,688,850	\$ 218,602	\$ 9,800	\$ 4,218,752
	2018	\$357,182	\$ —	\$ —	\$2,597,974	\$ 197,164	\$ 9,625	\$ 3,161,945
	2017	\$205,513	\$30,000 (5)	\$ —	\$1,086,260	\$ 98,499	\$ —	\$ 1,420,272
Lawrence O. Klein, Ph.D. (6) <i>Chief Business Officer and Chief Operating Officer</i>	2019	\$360,400	\$ —	\$3,984,600	\$1,549,003	\$ 209,032	\$ 9,800	\$ 6,112,835
Michael J. Tomsicek (5) <i>Chief Financial Officer</i>	2019	\$394,250	\$ —	\$1,462,600	\$1,948,673	\$ 228,665	\$ 9,800	\$ 4,043,988
	2018	\$380,000	\$ —	\$ —	\$1,653,972	\$ 209,760	\$ 9,625	\$ 2,253,357
	2017	\$ 51,885	\$ 50,000 (5)	\$ —	\$2,035,542	\$ 23,987	\$ —	\$ 2,161,414

- (1) The amounts reported in the “Share Awards” and “Option Awards” columns above represent the aggregate grant date fair value of the stock options and restricted stock units granted to such named executive officers during 2017, 2018 and 2019 as computed in accordance with FASB ASC Topic 718, not including any estimates of forfeitures related to service-based vesting conditions. See Note 9 of “Notes to Consolidated Financial Statements” in our Annual Report on Form 10-K for the year ended December 31, 2019 and filed with the SEC on February 12, 2020 for a discussion of assumptions made in determining the aggregate grant date fair value of our stock option and restricted stock unit awards. Note that the amounts reported in these columns reflect the accounting cost for these stock options and restricted stock units and do not correspond to the actual economic value that may be received by the named executive officers from the stock options and restricted stock units.
- (2) Amounts reported in this column represent cash incentive payments under our annual cash incentive program earned based on achievement of company goals and/or individual performance during the applicable year and paid in the first quarter of the following year.
- (3) Amounts represent the employer matching contribution to the executive’s 401(k) plan contributions during the relevant year.
- (4) Dr. Kulkarni served as our Chief Business Officer until May 3, 2017; our President and Chief Business Officer from that date until December 1, 2017; and our Chief Executive Officer from and after December 1, 2017.
- (5) Base salary and incentive compensation amounts were prorated to reflect partial year of employment in 2017. The amounts reflected in the column entitled “Bonus” for 2017 reflect the amount of signing bonuses paid upon the commencement of employment.
- (6) Dr. Klein was not considered an NEO in 2017 or 2018. Dr. Klein served as our Chief Business Officer from January 2, 2019 until January 25, 2020, and was subsequently promoted to our Chief Business Officer and Chief Operating Officer effective January 26, 2020.

Grants of Plan-Based Awards for Fiscal Year 2019

The following table sets forth the individual awards made to each of our NEOs during 2019. For a description of the types of awards indicated below, please see our “Compensation Discussion and Analysis” above:

Name	Grant Date	Estimated future payouts under non-equity incentive plan awards: Target (\$)(1)	All other stock awards: Number of shares of stock or units (#)(2)	All other option awards: Number of securities underlying options (#)(3)	Exercise or base price of stock and option awards (\$/Share)(4)	Grant date fair value of stock and option awards (\$)(5)
Samarth Kulkarni, Ph.D.		302,610				
	3/5/2019	—		250,000	40.87	6,495,579
	12/3/2019	—	120,000	—	73.13	8,775,600
Tony W. Ho., M.D.		194,209				
	3/5/2019	—		75,000	40.87	1,948,674
	3/5/2019	—	10,000	—	40.87	408,700
	12/3/2019	—	40,000	—	73.13	2,925,200
James R. Kasinger		150,760				
	3/5/2019	—	—	65,000	40.87	1,688,850
	9/10/2019(6)	—	10,000	—	46.20	462,000
	12/3/2019	—	20,000	—	73.13	1,462,600
Lawrence O. Klein, Ph.D.		144,160				
	1/2/2019(7)	—	—	20,000	29.87	379,799
	1/2/2019(7)	—	20,000	—	29.87	597,400
	3/5/2019	—	—	45,000	40.87	1,169,204
	9/10/2019(8)	—	10,000	—	46.20	462,000
	12/3/2019	—	40,000	—	73.13	2,925,200
Michael J. Tomsicek		157,700				
	3/5/2019	—	—	75,000	40.87	1,948,673
	12/3/2019	—	20,000	—	73.13	1,462,600

- (1) Represents the target amount of each executive’s cash incentive payments under our 2019 annual cash incentive program as established by the Compensation Committee and described in “Compensation Discussion and Analysis” above. Actual payments made for 2019 are provided in the “Summary Compensation Table.” Cash incentive payments are not subject to threshold or maximum payout levels and, accordingly, those columns have been omitted.
- (2) Restricted stock units subject to time-based vesting criteria established by the Compensation Committee and described in the footnotes to the Outstanding Equity Awards at December 31, 2019 table below.
- (3) Options subject to time-based vesting criteria established by the Compensation Committee and described in the footnotes to the Outstanding Equity Awards at December 31, 2019 table below.
- (4) The exercise price of these stock options is equal to the closing price of our common shares on the Nasdaq Global Market on the grant date.
- (5) Amounts represent the grant date fair value of the NEO’s stock options and restricted stock units, calculated in accordance with FASB ASC Topic 718. The grant date fair value of our stock options is calculated using a Black-Scholes valuation model. For purposes of these calculations, we have disregarded the estimate of forfeitures related to service-based vesting conditions.

- (6) This award of restricted stock units was granted in recognition of Mr. Kasinger's achievements and continued contributions to the Company.
- (7) The award of stock options and restricted stock units was granted to Dr. Klein in connection with his promotion to Chief Business Officer effective January 2, 2019.
- (8) This award of restricted stock units was granted in recognition of Dr. Klein's achievements and continued contributions to the Company.

Outstanding Equity Awards at Fiscal Year End

The following table sets forth certain information with respect to outstanding equity awards held by each of our NEOs as of December 31, 2019.

Name	Vesting Commencement Date	Option Awards(1)				Stock Awards(2)		
		Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Equity incentive plan awards: Number of securities underlying unexercised unearned options (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (#)
Samarth Kulkarni, Ph.D.	8/1/2015	168,596	—		1.81	9/10/2025		
	8/1/2015	26,462 (3)	—		1.81	9/10/2025		
	10/31/2016	75,837 (4)	17,496 (4)		12.57	7/14/2026		
	5/3/2017	66,666 (4)	33,334 (4)		16.21	5/3/2027		
	12/1/2017	130,000 (4)	130,000 (4)		19.12	12/1/2027		
	12/1/2017						13,334 (5)	812,041
	12/1/2017			150,000	19.12	12/1/2027		
	3/7/2018	59,500 (4)	76,500 (4)		51.49	3/7/2028		
	6/15/2018	40,875 (4)	68,125 (4)		59.31	6/15/2028		
	3/5/2019	46,875 (4)	203,125 (4)		40.87	3/5/2029		
12/3/2019						120,000 (7)	7,308,000	
Tony W. Ho, M.D.	8/1/2017	151,667	108,333		16.90	8/1/2027		
	3/7/2018	23,187 (4)	29,813 (4)		51.49	3/7/2028		
	6/15/2018	16,125 (4)	26,875 (4)		59.31	6/15/2028		
	3/5/2019	14,062 (4)	60,938 (4)		40.87	3/5/2029		
	3/5/2019						10,000 (8)	609,000
12/3/2019						40,000 (7)	2,436,000	
James R. Kasinger	5/31/2017	79,438	43,562		13.62	5/31/2027		
	3/7/2018	17,500 (4)	22,500 (4)		51.49	3/7/2028		
	6/15/2018	12,000 (4)	20,000 (4)		59.31	6/15/2028		
	3/5/2019	12,187 (4)	52,813 (4)		40.87	3/5/2029		
	9/10/2019						10,000 (9)	609,000
	12/3/2019						20,000 (7)	1,218,000
Lawrence O. Klein, Ph.D.	3/2/2016	59,220	4,446		5.86	3/2/2026		
	7/15/2016	32,503 (10)	7,497		12.57	7/15/2026		
	6/15/2017	19,375 (4)	11,625 (4)		14.43	6/15/2027		
	11/15/2017	7,812 (4)	7,188 (4)		17.66	11/15/2027		
	3/7/2018	26,250 (4)	33,750 (4)		51.49	3/7/2028		
	1/2/2019	-	20,000		29.87	1/2/2029		
	1/2/2019						20,000 (9)	1,218,000
	3/5/2019	8,437 (4)	36,563 (4)		40.87	3/5/2029		
	9/10/2019						10,000 (9)	609,000
	12/3/2019						40,000 (7)	2,436,000
Michael J. Tomsicek	11/13/2017	93,750	86,250		17.75	11/13/2027		
	3/7/2018	10,937 (4)	14,063 (4)		51.49	3/7/2028		
	6/15/2018	7,785 (4)	12,975 (4)		59.31	6/15/2028		
	3/5/2019	14,062 (4)	60,938 (4)		40.87	3/5/2029		
	12/3/2019						20,000 (7)	1,218,000

(1) Unless otherwise specified below, each award vests with respect to 25% of the shares on the first anniversary of the vesting commencement date and the remaining 75% vests in equal monthly installments over the next three years thereafter, subject to continuous service through each such date. Awards granted prior to October 18, 2016 were made pursuant to our 2015 Stock Option and Grant Plan, awards granted on or after October 18, 2016 and prior to June 15, 2018 were made pursuant to our

Amended and Restated 2016 Stock Option and Incentive Plan. Awards granted on or after June 15, 2018 were made under our 2018 Plan.

- (2) The market value is calculated by multiplying the number of unvested shares by \$60.90, which was the fair market value of our common shares as of December 31, 2019, the last trading day of our common shares in 2019.
- (3) 100% of the options became exercisable upon the performance of specific criteria.
- (4) This option vests in 48 equal monthly installments commencing upon the vesting commencement date.
- (5) This award of restricted stock units vests in 16 equal quarterly installments beginning on the vesting commencement date.
- (6) This option is subject to both time- and performance-based vesting. The performance-based vesting was deemed satisfied subject to achievement of certain share price targets prior to the third anniversary of the date of grant. Seventy-five percent (75%) of the stock option shall be deemed vested and exercisable on the third anniversary of the date of grant, subject to continuous employment through such date, and the remaining 25% of the stock option shall be deemed vested and exercisable upon the fourth anniversary of the date of grant, subject to continuous employment through such date.
- (7) This award of restricted stock units vests in two installments on December 3, 2021 (two-thirds) and December 3, 2022 (one-third).
- (8) This award of restricted stock units vests on March 5, 2020 (one-third), March 5, 2021 (one-third) and March 5, 2022 (one-third).
- (9) This award of restricted stock units vests 100% two years from the grant date.
- (10) This option vests in 48 equal monthly installments commencing upon the completion of the Company's initial public offering on October 19, 2016.

Option Exercises and Stock Vested in Fiscal Year 2019

The following table sets forth the number of shares acquired and the value realized upon exercises of stock options and vesting of restricted stock units, or RSUs, during the fiscal year ended December 31, 2019 by each of our NEOs.

	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$ (1))	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$ (2))
Samarth Kulkarni, Ph.D.	48,000	2,319,960	29,008	1,187,805
Tony W. Ho, M.D.	—	—	37,500	1,971,000
James R. Kasinger	—	—	—	—
Lawrence O. Klein, Ph.D.	20,000	873,926	—	—
Michael J. Tomsicek	—	—	—	—

- (1) The value realized upon the exercise of stock option awards does not represent proceeds from any sale of any common stock acquired upon exercise but is determined by multiplying the number of shares acquired upon exercise by the difference between the per share exercise price of the option and the closing price of a common share on the Nasdaq Global Market at each time of exercise.
- (2) The value realized upon vesting of restricted stock and RSUs is calculated by multiplying the number of shares of restricted stock and RSUs vested by the market price on the vest date.

Potential Payments on Termination or Change in Control

Under the terms of the employment agreements with our NEOs, as described above, each NEO is entitled to receive certain change-in-control payments and benefits if the NEO is terminated by us or our acquirer or successor without cause or resigns for good reason (as such terms are defined in the employment agreements), in either case, within stipulated periods after the consummation of a sale event, subject to a NEO's execution and non-revocation of a severance agreement, including a general release of claims. The following table quantifies the potential payments that would have become due to our NEOs assuming that one of the triggering events described under their respective employment agreements occurred as of December 31, 2019.

<u>Name</u>	<u>Termination without Cause Not in Connection with a Change in Control (\$)</u>	<u>Termination without Cause or Resignation for Good Reason in Connection with a Change in Control (\$)</u>
Samarth Kulkarni, Ph.D.		
Cash Severance Payment	550,200 (1)	550,200 (1)
Cash Incentive Bonus Payment	302,610 (2)	302,610 (2)
Involuntary Termination Garden Leave	11,399,944 (3)	-
Accelerated Equity Vesting—(Time-Based)	—	20,783,496 (4)
Accelerated Equity Vesting— (Performance Based)	—	6,267,000 (4)
Tony W. Ho, M.D.		
Cash Severance Payment	215,788 (5)	431,575 (1)
Cash Incentive Bonus Payment	97,104 (6)	194,209 (2)
Involuntary Termination Garden Leave	1,688,669 (7)	-
Accelerated Equity Vesting—(Time-Based)	—	9,355,512 (4)
Accelerated Equity Vesting— (Performance Based)	—	—
James R. Kasinger		
Cash Severance Payment	188,450 (5)	376,900 (1)
Cash Incentive Bonus Payment	75,380 (6)	150,760
Involuntary Termination Garden Leave	943,084 (7)	—
Accelerated Equity Vesting—(Time-Based)	—	5,187,981 (4)
Accelerated Equity Vesting— (Performance Based)	—	—
Lawrence O. Klein, Ph.D.		
Cash Severance Payment	180,200 (5)	360,400 (1)
Cash Incentive Bonus Payment	72,080 (6)	144,160 (2)
Involuntary Termination Administrative Leave	1,150,437 (7)	—
Accelerated Equity Vesting—(Time-Based)	—	7,391,605 (4)
Accelerated Equity Vesting— (Performance Based)	—	—
Michael J. Tomsicek		
Cash Severance Payment	197,125 (5)	394,250 (1)
Cash Incentive Bonus Payment	78,850 (6)	157,700 (2)
Involuntary Termination Garden Leave	1,192,189 (7)	—
Accelerated Equity Vesting—(Time-Based)	—	6,313,239 (4)
Accelerated Equity Vesting— (Performance Based)	—	—

- (1) Represents twelve months of the NEO's base salary.
(2) Represents one times (1x) the NEO's target annual bonus opportunity.

- (3) Represents twelve months of vesting for unvested awards as of December 31, 2019 based on the market price of our common shares on December 31, 2019 of \$60.90.
- (4) Represents full vesting of equity awards based on the market price of our common stock on December 31, 2019 of \$60.90.
- (5) Represents six months of the NEO's base salary.
- (6) Represents 0.5x the NEO's target annual bonus opportunity.
- (7) Represents six months of vesting for unvested awards as of December 31, 2019 based on the market price of our common shares on December 31, 2019 of \$60.90.

COMPENSATION COMMITTEE REPORT

The following Compensation Committee Report is not considered proxy solicitation material and is not deemed filed with the Securities and Exchange Commission. Notwithstanding anything to the contrary set forth in any of our filings made under the Securities Act of 1933 or the Exchange Act that might incorporate our filings under those statutes, the Compensation Committee Report shall not be incorporated by reference into any of our prior filings or into any of our future filings under those statutes.

The Compensation Committee of the Board of Directors has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with the Company's management. Based on this review and discussion, the Compensation Committee recommended to the Board of Directors, and the Board of Directors approved, that the Compensation Discussion and Analysis be included in this Proxy Statement for the Annual General Meeting and incorporated by reference in the Company's Annual Report for the fiscal year ended December 31, 2019.

By the Compensation Committee of the Board of Directors of CRISPR Therapeutics AG.

Simeon George, M.D., Chairman
John T. Greene

CEO PAY RATIO DISCLOSURE

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, and Item 402(u) of Regulation S-K, we are providing the following information about the relationship of the total annual compensation of our employees and the total annual compensation of Samarth Kulkarni, our CEO. This information is being provided for compliance purposes and is a reasonable estimate calculated in a manner consistent with SEC rules, based on our internal records and the methodology described below. The SEC rules for identifying the median compensated employee allow companies to adopt a variety of methodologies, to apply certain exclusions and to make reasonable estimates and assumptions that reflect their employee populations and compensation practices. Accordingly, the pay ratio reported by other companies may not be comparable to the pay ratio reported below, as other companies have different employee populations and compensation practices and may use different methodologies, exclusions, estimates and assumptions in calculating their own pay ratios. Neither the Compensation Committee nor management of the Company used the CEO Pay Ratio measure in making compensation decisions.

Pay Ratio Disclosure

For 2019, our last completed fiscal year:

- the total annual compensation of our median employee was \$245,292, as determined in accordance with Item 402 of Regulation S-K; and
- the total annual compensation of our CEO, as determined in accordance with Item 402 of Regulation S-K and reported in the “Summary Compensation Table” included elsewhere in this proxy statement, was \$16,265,732.

Based on this information, for 2019, the ratio of the total annual compensation of Dr. Kulkarni, our CEO, to the total annual compensation of our median employee was approximately 66 to 1.

Methodology

We selected December 31, 2020, which is within the last three months of our fiscal year, as the date upon which we would identify the median employee. As of December 31, 2019, we had 305 employees globally, including 299 U.S. employees and six non-U.S. employees. In determining the identity of our median employee, we excluded six non-U.S. employees from the following countries, which in aggregate represents less than 5% of our workforce (the number of employees excluded from the country is indicated following the country name): Switzerland (three) and the U.K. (three). After excluding the countries and employees described above, we determined the identity of our median employee from a population of 299 U.S. employees.

Under the relevant rules, we were required to identify the median employee by use of a “consistently applied compensation measure,” or CACM. We chose a CACM that closely approximates the annual target total direct compensation of our employees. We identified the “median employee” by looking at annual base pay and the annual target cash incentive opportunity for all active U.S. employees as of that date. We did not make any cost-of-living adjustments and did not annualize compensation.

After applying our CACM methodology, we identified the median employee. Once the median employee was identified, we calculated the median employee’s annual target total direct compensation in accordance with the requirements of the Summary Compensation Table.

DIRECTOR COMPENSATION

We have adopted a non-employee director compensation policy, which is designed to provide a total compensation package that enables us to attract and retain, on a long-term basis, high caliber non-employee directors. Under the non-employee director compensation policy, our non-employee directors are compensated as follows:

- each non-employee director will receive an annual cash fee of \$35,000 (\$65,000 for the chairman of the Board of Directors);
- each non-employee director who is a member of the Audit Committee will receive an additional annual cash fee of \$7,500 (\$15,000 for the Audit Committee chairman);
- each non-employee director who is a member of the Compensation Committee will receive an additional annual cash fee of \$5,000 (\$10,000 for the Compensation Committee chairman);
- each non-employee director who is a member of the Nominating Committee will receive an additional annual cash fee of \$4,000 (\$8,000 for the Nominating Committee chairman);
- each new non-employee director will receive an initial grant of an option to purchase 30,000 common shares upon his or her initial election to our Board of Directors; and
- each returning non-employee director will receive an annual grant of an option to purchase 15,000 common shares upon the date of the annual general meeting of shareholders.

The stock options granted to our non-employee directors will have an exercise price equal to the fair market value of our common shares on the date of grant and will expire ten years after the date of grant. The initial stock options granted to new non-employee directors will vest in equal monthly installments over a three-year period following the grant date, subject to such director's continued service on the Board of Directors. The annual stock options granted to our non-employee directors will vest in full upon the earlier of the first anniversary of the date of grant or the date of the following annual general meeting of shareholders, subject to such director's continued service on the Board of Directors. Any initial stock options and annual stock options granted to each of our non-employee directors will automatically accelerate and become fully vested and exercisable upon the non-employee director's death or disability or upon a sale event (as defined in the equity plan).

All cash fees will be paid quarterly, in arrears, or upon the earlier resignation or removal of the non-employee director. The amount of each payment will be prorated for any portion of a quarter that a non-employee director is not serving on our Board of Directors, based on the number of calendar days served by such non-employee director.

Each non-employee director is also entitled to reimbursement for reasonable travel and other expenses incurred in connection with attending meetings of the Board of Directors and any committee on which he or she serves.

In addition, pursuant to Swiss law and Article 18 of the Articles of Association of the Company, our shareholders must annually approve (i) the non-performance-related compensation of our Board of Directors for the next term of office and (ii) any additional compensation of the Board of Directors for the preceding business year. At our 2019 annual general meeting, shareholders approved the proposed compensation for the Board of Directors. For more information regarding the binding votes on aggregate compensation for our Board of Directors, see "Proposal 6 – Approval of Compensation for the Board of Directors and the Executive Committee."

Director Compensation Table

The following table sets forth a summary of the compensation for our non-employee directors during 2019.

Board Member (1)(2)	Fees Earned or Paid in Cash \$(3)	Option Awards \$(4)(5)	All Other Compensation (\$)	Total
Ali Behbahani, M.D.	46,500	401,923	—	448,423
Bradley Bolzon, M.D.	39,000	401,923	—	440,923
Pablo Cagnoni, M.D. (6)	48,000	401,923	—	449,923
Kurt von Emster (7)	22,390	—	—	22,390
Simeon J. George, M.D.	50,000	401,923	—	451,923
John T. Greene	30,371	803,847	—	834,218
Katherine A. High, M.D.	21,536	803,847	—	825,383
Thomas Woiwode, Ph.D. (7)	20,151	—	—	20,151

- (1) Dr. Kulkarni, our Chief Executive Officer, does not receive any compensation for his service as a director. The compensation received by Dr. Kulkarni, as a named executive officer of our company, is presented in “Executive Compensation—Summary Compensation Table—2019.”
- (2) Dr. Novak, our President, is an executive officer, other than a named executive officer. Dr. Novak does not receive any additional compensation for his service as a member of our Board of Directors.
- (3) Amounts reported represent fees earned by each director for their service on the Board of Directors and any committee or committees thereof for the year ending December 31, 2019. Each director was eligible to receive compensation in accordance with the policy described above during the year 2019.
- (4) These amounts represent the aggregate grant date fair value of awards granted to our directors in 2019, computed in accordance with FASB ASC Topic 718. See Note 9 to the audited consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2019 regarding assumptions underlying the valuation of equity awards.
- (5) The aggregate amount of stock option awards outstanding as of December 31, 2019 for the non-employee directors of our Board of Directors was: Dr. Behbahani: 75,000; Dr. Bolzon: 75,000; Dr. Cagnoni: 164,096; Dr. George: 75,000; Mr. Greene: 40,000 and Dr. High: 30,000. The aggregate amount of stock option awards outstanding as of December 31, 2019 for our former non-employee directors of our Board of Directors was: Mr. von Emster: 0 and Dr. Woiwode: 60,000.
- (6) As disclosed on our Current Report on Form 8-K filed with the SEC on February 26, 2020, Dr. Cagnoni resigned from our Board of Directors effective February 26, 2020.
- (7) Mr. von Emster and Dr. Woiwode served as directors through our 2019 annual general meeting at which each did not stand for re-election.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table provides information about the securities authorized for issuance under our equity compensation plans as of December 31, 2019. As of December 31, 2019, we had four equity compensation plans, each of which was approved by our shareholders: the 2015 Stock Option and Grant Plan, or 2015 Plan, the Amended and Restated 2016 Stock Option and Incentive Plan, or 2016 Plan, the 2016 Employee Stock Purchase Plan, or 2016 ESPP, and the 2018 Stock Option and Incentive Plan, as amended, or 2018 Plan.

Equity Compensation Plan Information

<u>Name</u>	<u>Number of securities to be issued upon exercise of outstanding options, RSU's, warrants and rights</u>	<u>Weighted average exercise price of outstanding options, warrants and rights(1)</u>	<u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))(2)</u>
	(a)	(b)	(c)
Equity compensation plans approved by security holders	8,321,708	31.69	8,576,607
Equity compensation plans not approved by security holders(3)	160,263	12.57	—
Total	8,481,971		8,576,607

- (1) The weighted average exercise price is calculated based solely on outstanding stock options.
- (2) As of December 31, 2019, (i) 8,163,381 shares remained available for future issuance under the 2018 Plan and (ii) 413,226 shares remained available for future issuance under the 2016 ESPP.
- (3) In 2016, prior to our initial public offering, we granted stock options to certain then-employees and nonemployee advisors outside of our shareholder-approved plans. These options generally have terms and conditions consistent with our 2015 Plan.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

Our Audit Committee has reviewed our audited consolidated financial statements and the statutory financial statements for the year ended December 31, 2019 and discussed them with our management and our independent registered public accounting firm, Ernst & Young LLP and our statutory auditor, Ernst & Young AG.

Our Audit Committee has also received from, and discussed with, Ernst & Young LLP various communications that Ernst & Young LLP is required to provide to our Audit Committee, including the matters required to be discussed by the statement on Auditing Standard No. 1301, "Communication with Audit Committees," as adopted by the Public Company Accounting Oversight Board.

In addition, Ernst & Young LLP provided our Audit Committee with the written disclosures and the letter required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm's communications with the Audit Committee concerning independence, and has discussed with the Company's independent registered public accounting firm their independence.

Based on the review and discussions referred to above, our Audit Committee recommended to our Board of Directors that the audited consolidated financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2019.

By the Audit Committee of the Board of Directors of CRISPR Therapeutics AG.

John T. Greene, Chair
Ali Behbahani, M.D.
Simeon J. George, M.D.

MATTERS TO BE VOTED ON

Proposal 1: Approval of the Annual Report, the Consolidated Financial Statements and the Statutory Financial Statements of CRISPR Therapeutics AG

Explanation

The consolidated financial statements and the statutory financial statements of CRISPR Therapeutics AG for the year ended December 31, 2019 are contained in the Company's Annual Report, which has been made available to all registered shareholders on or before the date of mailing of this proxy statement. The Annual Report also contains the consolidated and statutory financial statements including the reports to these statements of the Company's statutory auditor, the Company's Compensation Report prepared in compliance with the Swiss Ordinance Against Excessive Compensation by Public Corporations, or the Minder Ordinance, and the statutory auditor's report on the Compensation Report, additional information on the Company's business, organization and strategy, organization and strategy. Copies of the Annual Report are available on the Internet at *ir.crisprtx.com*.

Under Swiss law, the Annual Report, the consolidated financial statements and the statutory financial statements of Swiss companies must be submitted to shareholders for approval or disapproval at each annual general meeting. In the event of a negative vote on this proposal by shareholders, the Board of Directors will call an extraordinary general meeting of shareholders for reconsideration of this proposal by shareholders.

Ernst & Young AG, as the Company's statutory auditors, issued an unqualified recommendation to the 2020 Annual General Meeting that the consolidated and statutory financial statements of CRISPR Therapeutics AG for the year ended December 31, 2019 be approved. Ernst & Young AG expressed their opinion that the "consolidated financial statements for the year ended December 31, 2019 present fairly, in all material respects, the financial position, the results of operations and the cash flows in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) and comply with Swiss law."

Further Ernst & Young AG expressed their opinion and confirmed that the consolidated financial statements, the statutory financial statements and the proposed appropriation of financial results comply with Swiss law and the Articles of Association of CRISPR Therapeutics AG. Ernst & Young AG also expressed their opinion that the Compensation Report complies with the Minder Ordinance and other applicable Swiss law.

Voting Requirement to Approve Proposal

The affirmative "**FOR**" vote of a majority of the votes cast in person or by proxy at the 2020 Annual General Meeting, not counting unmarked, invalid and non-exercisable votes and abstentions.

Recommendation

The Board of Directors recommends a vote "**FOR**" approval of the Annual Report, the consolidated financial statements and the statutory financial statements of the Company for the year ended December 31, 2019.

Proposal 2: Approval of the Appropriation of Financial Results

Explanation

Under Swiss law, the appropriation of the financial results as set forth in the Company's statutory financial statements must be submitted to shareholders for approval at each annual general meeting. The Board of Directors proposes to carry forward the net income resulting from the following appropriation of financial results:

Proposed Appropriation of Net Income: in Swiss Francs (CHF)

Balance brought forward from previous years	CHF	(264,902,686)
Net income for the period (on a stand-alone unconsolidated basis):	CHF	8,323,716
Total accumulated net loss:	CHF	(256,578,970)

Resolution proposed by the Board of Directors:

- *RESOLVED, that the net income for the period of CHF 8,323,716 shall be carried forward.*

Voting Requirement to Approve Proposal

The affirmative “**FOR**” vote of a majority of the votes cast in person or by proxy at the 2020 Annual General Meeting, not counting unmarked, invalid and non-exercisable votes and abstentions.

Recommendation

The Board of Directors recommends a vote “**FOR**” approval of the proposed appropriation of retained earnings with respect to the year ended December 31, 2019.

Proposal 3: Discharge of the Members of the Board of Directors and Executive Committee

Explanation

As is customary for Swiss corporations and in accordance with Article 698, subsection 2, item 5 of the Swiss Code of Obligations, shareholders are requested to release the members of the Board of Directors and Executive Committee from liability for the business year ended December 31, 2019. Discharge pursuant to the proposed resolution is only effective with respect to facts that have been disclosed to shareholders (including through any publicly available information, whether or not included in our filings with the SEC) and only binds shareholders who either voted in favor of the proposal or who subsequently acquired shares with knowledge that the shareholders have approved this proposal. In addition, shareholders who vote against this proposal, abstain from voting on this proposal, do not vote on this proposal, or acquire their shares without knowledge of the approval of this proposal, may bring, as a plaintiff, any claims in a shareholder derivative suit within six months after the approval of the proposal. After the expiration of the six-month period, such shareholders will generally no longer have the right to bring, as a plaintiff, claims in shareholder derivative suits against members of the Board of Directors or the Executive Committee with respect to activities during the business year 2019.

Voting Requirement to Approve Proposal

The affirmative “**FOR**” vote of a majority of the votes cast in person or by proxy at the 2020 Annual General Meeting, not counting unmarked, invalid and non-exercisable votes and abstentions and not counting the votes of any member of the Board of Directors or of any of the members of the Executive Committee.

Recommendation

The Board of Directors recommends a vote “**FOR**” the proposal to release the members of the Board of Directors and the Executive Committee from liability for activities during the year ended December 31, 2019.

Proposal 4: Election of Eight Directors

Explanation

Our Board of Directors is presently composed of seven members. Each director as well as the Chairman must be elected annually and individually for a term extending until completion of the next annual general meeting of shareholders.

At the recommendation of the Nominating Committee, our Board of Directors has nominated the eight individuals below to serve as directors for a one-year term, beginning in each case as of the 2020 Annual General Meeting and ending at the closing of the 2021 annual general meeting. Seven of the eight nominees currently serve as members of our Board of Directors. Their current terms expire upon the closing of the 2020 Annual General Meeting.

Under Swiss law, board members may only be elected by shareholders. If the individuals below are elected or re-elected, as applicable, our Board of Directors will be composed of eight members. Our Board of Directors has no reason to believe that any of our nominees will be unwilling or unable to serve if elected as a director. There will be a separate vote on each nominee.

For further information on our Board of Directors, including the current members of the board, the proposed member of the board, the committees of the board, the means by which the board exercises supervision of our executive officers, and other information, please see “Board of Directors and Corporate Governance—Election of Directors” starting on page 7.

4.a Re-election of Rodger Novak, M.D., as member and Chairman

Proposal: The Board of Directors proposes that Rodger Novak, M.D., be re-elected to the Board of Directors as member and Chairman for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Dr. Novak, please refer to “Board of Directors and Corporate Governance—Election of Directors” on page 7.

4.b Re-election of Samarth Kulkarni, Ph.D.

Proposal: The Board of Directors proposes that Samarth Kulkarni, Ph.D., be re-elected to the Board of Directors for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Dr. Kulkarni, please refer to “Board of Directors and Corporate Governance—Election of Directors” on page 9.

4.c Re-election of Ali Behbahani, M.D.

Proposal: The Board of Directors proposes that Ali Behbahani, M.D., be re-elected to the Board of Directors for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Dr. Behbahani, please refer to “Board of Directors and Corporate Governance—Election of Directors” on page 8.

4.d Re-election of Bradley Bolzon, Ph.D.

Proposal: The Board of Directors proposes that Bradley Bolzon, Ph.D., be re-elected to the Board of Directors for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Dr. Bolzon, please refer to “Board of Directors and Corporate Governance—Election of Directors” on page 8.

4.e Re-election of Simeon J. George, M.D.

Proposal: The Board of Directors proposes that Simeon J. George, M.D., be re-elected to the Board of Directors for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Dr. George, please refer to “Board of Directors and Corporate Governance—Election of Directors” on pages 8.

4.f Re-election of John T. Greene

Proposal: The Board of Directors proposes that John T. Greene, be re-elected to the Board of Directors for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Mr. Greene, please refer to “Board of Directors and Corporate Governance—Election of Directors” on page 9.

4.g Re-election of Katherine A. High, M.D.

Proposal: The Board of Directors proposes that Katherine A. High, M.D., be re-elected to the Board of Directors for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Dr. High, please refer to “Board of Directors and Corporate Governance—Election of Directors” on page 9.

4.h Election of Douglas A. Treco, Ph.D.

Proposal: The Board of Directors proposes that Douglas A. Treco, Ph.D., be elected to the Board of Directors for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Dr. Treco, please refer to “Board of Directors and Corporate Governance—Election of Directors” on page 8.

Voting Requirement to Approve Proposals

The affirmative “**FOR**” vote for each nominee of a majority of the votes cast in person or by proxy at the 2020 Annual General Meeting, not counting unmarked, invalid and non-exercisable votes and abstentions.

Recommendation

The Board of Directors recommends a vote “**FOR**” the election and re-election of each nominee to the Board of Directors.

Proposal 5: Election of Members of the Compensation Committee

Explanation

Our Compensation Committee is presently composed of two members, of whom both are standing for re-election to the Board of Directors and to the Compensation Committee. In accordance with Swiss law, the members of the Compensation Committee are to be elected annually and individually by the shareholders. Only members of the Board of Directors can be elected as members of the Compensation Committee.

At the recommendation of the Nominating Committee, our Board of Directors has nominated the three individuals below to serve as members of the Compensation Committee for a term of one year. Two of the nominees (i.e., Dr. George and Mr. Greene) currently serve as members of the Compensation Committee and, as required by our Compensation Committee charter, all of the nominees are independent in accordance with the requirements of the listing standards of the Nasdaq Stock Market, or Nasdaq, the outside director definition of Section 162(m) of the Code, the definition of a “non-employee director” for purposes of Rule 16b-3 promulgated by the SEC and Rule 10C-1(b)(1) of the Exchange Act.

The term of office for each member of the Compensation Committee ends at the closing of the next annual general meeting. There will be a separate vote on each nominee.

5.a Election of Ali Behbahani, M.D.

Proposal: The Board of Directors proposes that Ali Behbahani, M.D. be elected to the Compensation Committee for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Dr. Behbahani, please refer to “Board of Directors and Corporate Governance—Election of Directors” on page 8.

5.b Re-election of Simeon J. George, M.D.

Proposal: The Board of Directors proposes that Simeon J. George, M.D., be re-elected to the Compensation Committee for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Dr. George, please refer to “Board of Directors and Corporate Governance—Election of Directors” on pages 8.

5.c Re-Election of John T. Greene

Proposal: The Board of Directors proposes that John T. Greene be re-elected to the Compensation Committee for a one-year term ending at the closing of the 2021 annual general meeting.

For biographical information and qualifications of Mr. Greene, please refer to “Board of Directors and Corporate Governance—Election of Directors” on page 9.

Voting Requirement to Approve Proposals

The affirmative “**FOR**” vote of a majority of the votes cast in person or by proxy at the 2020 Annual General Meeting, not counting unmarked, invalid and non-exercisable votes and abstentions.

Recommendation

The Board of Directors recommends a vote “**FOR**” the election and re-election of each of nominees to the Compensation Committee.

Proposal 6: Approval of the Compensation for the Board of Directors and the Members of the Executive Committee

Explanation

Pursuant to Swiss law and Article 18 of the Articles of Association of the Company, the shareholders must annually approve (i) the non-performance-related compensation of the Board of Directors for the next term of office, (ii) any additional compensation of the Board of Directors for the preceding business year, (iii) the non-performance-related compensation of the Executive Committee for the 12-month period starting on July 1 following the Annual General Meeting, (iv) the variable compensation for the Executive Committee for the current year and (v) the grant of options or shares in the Company to the Board of Directors and the Executive Committee. The compensation numbers below include an amount of 10% for unforeseen contingencies and possible compensation increases.

This proposal, as it relates to the compensation of the Board of Directors, is based on the Board of Directors consisting of eight directors, of whom six are non-employee directors. Only the non-employee directors are included in this proposal. Our president and chief executive officer, who are also members of the Board of Directors, do not receive any compensation for their roles as a director.

Pursuant to Article 6.1 of the Organizational Regulations of the Company, the Executive Committee consists of the chief executive officer, the chief financial officer, the chief business officer, the chief scientific officer, the chief legal officer and such other officers expressly designated by the Board of Directors to be members of the Executive Committee. As such, our Executive Committee is comprised of the following persons: Tony Ho, M.D., James R. Kasinger, Lawrence O. Klein, Ph.D., Samarth Kulkarni, Ph.D., Rodger Novak, M.D., and Michael Tomsicek.

6.a Binding vote on total non-performance-related compensation for members of the Board of Directors from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders.

The Board of Directors proposes that shareholders approve the total maximum amount of non-performance-related compensation for the members of the Board of Directors covering the period from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders, *i.e.*, USD \$320,000 (cash base compensation plus social security costs).

6.b Binding vote on equity for members of the Board of Directors from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders.

The Board of Directors proposes that shareholders approve the maximum grant of equity or equity linked instruments for the members of the Board of Directors covering the period from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders with maximum value of USD \$5,911,650 (equity value plus social security costs).

6.c Binding vote on total non-performance-related compensation for members of the Executive Committee from July 1, 2020 to June 30, 2021.

The Board of Directors proposes that shareholders approve the total maximum amount of non-performance-related cash compensation for the members of the Executive Committee covering the period from July 1, 2020 to June 30, 2021, *i.e.*, USD \$3,393,795 (cash base compensation plus social security costs).

6.d Binding vote on total variable compensation for members of the Executive Committee for the current year ending December 31, 2020.

The Board of Directors proposes that shareholders approve the total maximum amount of variable compensation for the members of the Executive Committee for the current year ending December 31, 2020, i.e., USD \$2,379,619 (cash compensation plus social security costs).

6.e Binding vote on equity for members of the Executive Committee from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders.

The Board of Directors proposes that shareholders approve the maximum of equity or equity linked instruments for the members of the Executive Committee covering the period from the 2020 Annual General Meeting to the 2021 annual general meeting of shareholders with maximum value of USD \$53,069,700 (equity value plus social security costs).

Voting Requirement to Approve Proposals

The affirmative “**FOR**” vote of a majority of the votes cast in person or by proxy at the 2020 Annual General Meeting, not counting unmarked, invalid and non-exercisable votes and abstentions.

Recommendation

The Board of Directors recommends a vote “**FOR**” the approval of the compensation of the Board of Directors and members of the Executive Committee as set forth above.

Proposal 7: Increase of the Conditional Share Capital for Employee Benefit Plans

Explanation

Under Swiss corporate law the total nominal par value of the shares authorized by shareholders for future issuance on the exercise of option rights granted to employees by a company is referred to as conditional share capital. A Swiss company must have sufficient shares available, either through conditional share capital, treasury shares, or a combination of the two, to cover any option rights under derivative securities at the time the securities are issued.

The Board of Directors is proposing that shareholders authorize the increase of the Company's conditional share capital for employee benefit plans by an amount of CHF 150,000 to CHF 710,947.11 for the issuance of up to 23'698'237 common shares to cover any future share issuances due to the exercise of option rights. The Board of Directors is seeking this conditional share capital at this time in order to provide flexibility for future option grants and in order to allow the amendment of the 2018 Plan which the Company suggests to approve under proposal 8.

Shareholders' advanced subscription rights will be excluded with regard to these shares. These new registered shares may be issued at a price below the current market price. The Board of Directors will specify the precise conditions of issue including the issue price of the shares. If the proposal is approved no further authorization from the shareholders will be necessary or solicited prior to issue shares for options that have been granted and exercised within the limits under the proposal.

If this proposal to increase the conditional share capital for employee benefit plans is approved, the current Article 3c para. 1 of the Articles of Association will be amended as follows:

Current version:

Art. 3c Conditional Share Capital for Employee Benefit Plans

The share capital of the Company shall be increased by an amount not exceeding CHF 560'947.11 through the issue of a maximum of 18'698'237 registered shares, payable in full, each with a nominal value of CHF 0.03, in connection with the exercise of option rights granted to any employee of the Company or a subsidiary, and any consultant, members of the Board of Directors, or other person providing services to the Company or a subsidiary.

New version (changes in *italics*):

Art. 3c Conditional Share Capital for Employee Benefit Plans

The share capital of the Company shall be increased by an amount not exceeding CHF *710,947.11* through the issue of a maximum of *23'698'237* registered shares, payable in full, each with a nominal value of CHF 0.03, in connection with the exercise of option rights granted to any employee of the Company or a subsidiary, and any consultant, members of the Board of Directors, or other person providing services to the Company or a subsidiary.

Art. 3c Bedingtes Aktienkapital für Mitarbeiterbeteiligungspläne

Das Aktienkapital kann durch die Ausgabe von höchstens 18'698'237 voll zu liberierenden Namenaktien im Nennwert von je CHF 0.03 um höchstens CHF 560'947.11 durch Ausübung von Optionsrechten erhöht werden, welche Mitarbeitenden der Gesellschaft oder ihrer Tochtergesellschaften, Personen in vergleichbaren Positionen, Beratern, Verwaltungsratsmitgliedern oder anderen Personen, welche Dienstleistungen zu Gunsten der Gesellschaft erbringen, gewährt wurden.

Art. 3c Bedingtes Aktienkapital für Mitarbeiterbeteiligungspläne

Das Aktienkapital kann durch die Ausgabe von höchstens *23'698'237* voll zu liberierenden Namenaktien im Nennwert von je CHF 0.03 um höchstens CHF *710,947.11* durch Ausübung von Optionsrechten erhöht werden, welche Mitarbeitenden der Gesellschaft oder ihrer Tochtergesellschaften, Personen in vergleichbaren Positionen, Beratern, Verwaltungsratsmitgliedern oder anderen Personen, welche Dienstleistungen zu Gunsten der Gesellschaft erbringen, gewährt wurden.

Voting Requirement to Approve Proposal

The affirmative “**FOR**” vote of at least two thirds of the represented share votes (in person or by proxy) at the 2020 Annual General Meeting.

Recommendation

Our Board of Directors recommends a vote “**FOR**” the Increase of the Conditional Share Capital for Employee Benefit Plans.

Proposal 8: Approval of Amendment to the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan

Explanation

The Board of Directors believes that options to purchase common shares and other share-based incentive awards play an important role in the success of the Company by encouraging and enabling the employees, officers, non-employee directors and other key persons of the Company and its subsidiaries upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. The Board of Directors anticipates that providing such persons with a direct stake in the Company will assure a closer identification of the interests of such individuals with those of the Company and its shareholders, thereby stimulating their efforts on the Company's behalf and strengthening their desire to remain with the Company.

On March 10, 2020, subject to shareholder approval, the Board of Directors approved an amendment to the Company's 2018 Stock Option and Incentive Plan, as amended, or the 2018 Plan, to increase the number of common shares reserved for issuance under the 2018 Plan by 5,000,000 common shares and to increase the number of shares that may be issued in the form of incentive stock options by 5,000,000 common shares. If approved, this amendment would increase the total number of common shares issuable under the 2018 Plan to 13,000,000 common shares, plus the number of shares that remained available for issuance under the CRISPR Therapeutics AG Amended and Restated 2016 Stock Option and Incentive Plan, or the 2016 Plan, as of the original effective date of the 2018 Plan, plus any common shares underlying any awards that are forfeited, canceled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without any issuance of common shares, expired or are otherwise terminated, other than by exercise, under the 2018 Plan, the 2016 Plan and the CRISPR Therapeutics AG 2015 Stock Option and Grant Plan. As of March 15, 2020, there were approximately 7,494,320 common shares available for future grants under the 2018 Plan. A copy of the amendment to the 2018 Plan is attached as *Appendix A* to this proxy statement and is incorporated herein by reference.

Rationale for Share Increase

The amendment to the 2018 Plan is critical to our ongoing effort to build shareholder value. Equity incentive awards are an important component of the compensation of our executive and non-executive employees and our non-employee directors. Our Compensation Committee and the Board of Directors believe that we must continue to offer a competitive equity compensation program in order to attract, retain and motivate the talented and qualified employees and non-employee directors necessary for our continued growth and success.

We manage our long-term shareholder dilution by limiting the number of equity incentive awards granted annually. The Compensation Committee carefully monitors our annual net burn rate, total dilution and equity expense in order to maximize shareholder value by granting only the number of equity incentive awards that it believes are necessary and appropriate to attract, reward and retain our employees, officers and non-employee directors. Our employee compensation philosophy reflects broad-based eligibility for equity incentive awards for high performing employees. By doing so, we link the interests of those employees with those of our shareholders and motivate our employees to act as owners of the business.

If our request to increase the share reserve under the 2018 Plan by an additional 5,000,000 common shares is approved by shareholders, we will have approximately 12,494,320 shares available for grant after the 2020 Annual General Meeting, which is based on 7,494,320 shares available for grant under the 2018 Plan as of March 15, 2020 and the 5,000,000 common shares subject to this proposal. Our Compensation Committee determined the size of the requested share increase based on projected equity awards to anticipated new hires and projected annual equity awards to existing employees, officers, non-employee directors and other key persons.

Based solely on the closing price of our common shares as reported by Nasdaq on March 16, 2020, the maximum aggregate market value of the 5,000,000 common shares proposed to be added to the 2018 Plan is \$168.4 million. The common shares we issue under the 2018 Plan will be authorized but unissued shares as well as shares that we reacquire. The common shares underlying any awards that are forfeited, canceled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without any issuance of common shares, expire or are otherwise terminated, other than by exercise, under the 2018 Plan, as well as the 2015 Plan and the 2016 Plan, will be added back to the common shares available for issuance under the 2018 Plan.

Important Aspects of the 2018 Plan Designed to Protect Shareholder Interests

The 2018 Plan contains certain provisions designed to protect our shareholders' interests and reflect corporate governance best practices including those set forth below, which are qualified in their entirety by the "*Summary of the 2018 Plan*" and the full text of the 2018 Plan, filed as Exhibit 99.1 and Exhibit 99.2 to our Registration Statement on Form S-8 filed on July 29, 2019, as amended by the proposed amendment attached hereto as *Appendix A*.

- *Shareholder approval required for additional shares.* The 2018 Plan does not contain an annual "evergreen" provision. As such, shareholder approval is required each time we need to increase the common shares reserved for issuance under the 2018 Plan, thereby allowing our shareholders the ability to have a say on our equity compensation programs.
- *No repricing of equity awards.* Stock options and stock appreciation rights cannot be repriced in any manner without shareholder approval.
- *Material amendments require shareholder approval.* Any material amendment to the 2018 Plan is subject to approval by our shareholders.
- *Flexibility in designing equity compensation scheme.* The 2018 Plan allows us to provide a broad array of equity incentives, including traditional option grants, restricted stock awards, restricted stock unit awards and performance-based awards. By providing this flexibility, the Board of Directors can quickly and effectively react to trends in compensation practices and continue to offer competitive compensation arrangements to attract and retain the talent necessary for the success of our business.
- *No right to vote or receive dividends.* Until common shares are delivered in accordance with the 2018 Plan in connection with the exercise of outstanding stock options, no right to vote or receive dividends or any other rights of a shareholder will exist with respect to shares underlying such options.

Voting Requirement to Approve Proposal

The affirmative "**FOR**" vote of a majority of the votes cast in person or by proxy at the 2020 Annual General Meeting, not counting unmarked, invalid and non-exercisable votes and abstentions.

Recommendation

Our Board of Directors recommends a vote "**FOR**" the approval of the amendment to the 2018 Plan.

Summary of the 2018 Plan

The following description of certain features of the 2018 Plan is intended to be a summary only. The summary is qualified in its entirety by the full text of the 2018 Plan, filed as Exhibit 99.1 and Exhibit 99.2 to our Registration Statement on Form S-8 filed on July 29, 2019, as amended by the proposed amendment attached hereto as *Appendix A*.

Administration. The 2018 Plan is administered by the Board of Directors. The Board of Directors has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, to make any combination of awards to participants, and to determine the specific terms and conditions of each award, subject to the provisions of the 2018 Plan. The Board of Directors may delegate to our chief executive officer the authority to grant awards to employees who are not subject to the reporting and other provisions of Section 16 of the Exchange Act and who are not directors or members of the executive committee, subject to certain limitations and guidelines.

Eligibility. All full-time and part-time officers, employees, non-employee directors and other key persons (including consultants) are eligible to participate in the 2018 Plan, subject to the discretion of the administrator. There are certain limits on the number of awards that may be granted under the 2018 Plan. For example, under the amended 2018 Plan, no more than 25,005,365 shares may be granted in the form of incentive stock options. As of March 15, 2020, approximately 316 individuals were eligible to participate in the 2018 Plan, which includes five named executive officers and five eligible non-employee directors.

Stock Options. The 2018 Plan permits the granting of (1) options to purchase common shares intended to qualify as incentive stock options under Section 422 of the Code and (2) options that do not so qualify. Options granted under the 2018 Plan will be non-qualified options if they fail to qualify as incentive options or exceed the annual limit on incentive stock options. Incentive stock options may only be granted to employees of the Company and its subsidiaries. Non-qualified options may be granted to any persons eligible to receive incentive options and to non-employee directors and key persons. The option exercise price of each option will be determined by the Board of Directors but may not be less than 100% of the fair market value of the common shares on the date of grant. Fair market value for this purpose will be the last reported sale price of the common shares on Nasdaq on the grant date. The exercise price of an option may not be reduced after the date of the option grant, other than to appropriately reflect changes in our capital structure.

The term of each option will be fixed by the Board of Directors and may not exceed ten years from the date of grant. The Board of Directors will determine at what time or times each option may be exercised. Options may be made exercisable in installments and the exercisability of options may be accelerated by the Board of Directors. In general, unless otherwise permitted by the Board of Directors, no option granted under the 2018 Plan is transferable by the optionee other than by will or by the laws of descent and distribution, and options may be exercised during the optionee's lifetime only by the optionee, or by the optionee's legal representative or guardian in the case of the optionee's incapacity.

Upon exercise of options, the option exercise price must be paid in full either in cash, by certified or bank check or other instrument acceptable to the Board of Directors or by delivery (or attestation to the ownership) of common shares that are beneficially owned by the optionee and that are not subject to risk of forfeiture. Subject to applicable law, the exercise price may also be delivered to the Company by a broker pursuant to irrevocable instructions to the broker from the optionee. In addition, the Board of Directors may permit non-qualified options to be exercised using a net exercise feature which reduces the number of shares issued to the optionee by the number of shares with a fair market value equal to the exercise price.

To qualify as incentive options, options must meet additional United States federal tax requirements, including a \$100,000 limit on the value of common shares subject to incentive options that first become exercisable by a participant in any one calendar year.

Stock Appreciation Rights. The Board of Directors may award stock appreciation rights subject to such conditions and restrictions as the Board of Directors may determine. Stock appreciation rights entitle the recipient to common shares equal to the value of the appreciation in the stock price over the exercise price. The exercise price is the fair market value of the common shares on the date of grant. The term of a stock appreciation right may not exceed ten years.

Restricted Stock. The Board of Directors may award common shares to participants subject to such conditions and restrictions as the Board of Directors may determine. These conditions and restrictions may include the achievement of certain performance goals (as summarized above) and/or continued employment or service with us through a specified restricted period. During the vesting period, restricted stock awards may be credited with dividend equivalent rights (but dividend equivalents payable with respect to restricted stock awards with vesting tied to the attainment of performance criteria shall not be paid unless and until such performance conditions are attained).

Restricted Stock Units. The Board of Directors may award restricted stock units to any participants. Restricted stock units are ultimately payable in the form of common shares and may be subject to such conditions and restrictions as the Board of Directors may determine. These conditions and restrictions may include the achievement of certain performance goals (as summarized above) and/or continued employment with the Company through a specified vesting period. In the Board of Director’s sole discretion, it may permit a participant to make an advance election to receive a portion of his or her future cash compensation otherwise due in the form of a restricted stock unit award, subject to the participant’s compliance with the procedures established by the Board of Directors and requirements of Section 409A of the Code. During the deferral period, the deferred stock awards may be credited with dividend equivalent rights.

Unrestricted Stock Awards. The Board of Directors may also grant common shares which are free from any restrictions under the 2018 Plan. Unrestricted stock may be granted to any participant in recognition of past services or other valid consideration and may be issued in lieu of cash compensation due to such participant.

Dividend Equivalent Rights. The Board of Directors may grant dividend equivalent rights to participants which entitle the recipient to receive credits for dividends that would be paid if the recipient had held specified common shares. Dividend equivalent rights granted as a component of another award (other than a stock option or stock appreciation right) may be paid only if the related award becomes vested. Dividend equivalent rights may be settled in cash, common shares or a combination thereof, in a single installment or installments, as specified in the award.

Change of Control Provisions. The 2018 Plan provides that upon the effectiveness of a “sale event,” as defined in the 2018 Plan, the parties thereto may cause the assumption or continuation of awards theretofore granted by the successor entity, or the substitution of such awards with new awards of the successor entity or parent thereof, with appropriate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree. To the extent the parties do not provide for the assumption, continuation or substitution of awards, all options and stock appreciation rights that are not exercisable immediately prior to the effective time of the sale event shall become fully exercisable as of the effective time of the sale event, all other awards with time-based vesting, conditions or restrictions, shall become fully vested and nonforfeitable as of the effective time of the sale event and all awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in the discretion of the compensation committee, and the 2018 Plan and all awards granted under the 2018 Plan shall terminate. In addition, in connection with the termination of the 2018 Plan upon a sale event, we may make or provide for a cash payment to participants holding options and stock appreciation rights equal to the difference between the per share cash consideration payable to shareholders in the sale event and the exercise price of the options or stock appreciation rights.

Adjustments for Stock Dividends, Stock Splits, Etc. The 2018 Plan requires the Board of Directors to make appropriate adjustments to the number of common shares that are subject to 2018 Plan, to certain limits in the 2018 Plan, and to any outstanding awards to reflect stock dividends, stock splits, extraordinary cash dividends and similar events.

Tax Withholding. Participants in the 2018 Plan are responsible for the payment of any federal, state or local taxes that the Company is required by law to withhold upon the exercise of options or stock appreciation rights or vesting of other awards. Subject to approval by the Board of Directors, participants may elect to have the minimum tax withholding obligations satisfied by authorizing us to withhold common shares to be issued pursuant to the exercise or vesting.

Amendments and Termination. The Board of Directors may at any time amend or discontinue the 2018 Plan and the Board of Directors may at any time amend or cancel any outstanding award for the purpose of satisfying changes in the law or for any other lawful purpose. However, no such action may adversely affect any rights under any outstanding award without the holder’s consent. To the extent required under the rules of Nasdaq, any amendments that materially change the terms of the 2018 Plan will be subject to approval by our shareholders.

Effective Date of Plan. Our 2018 Plan was adopted by our Board of Directors on March 7, 2018 and became effective upon approval by our shareholders on May 30, 2018. On March 5, 2019, subject to shareholder approval, the Board of Directors approved an amendment to our 2018 Plan and such amendment became effective upon approval by our shareholders on June 11, 2019. Awards of incentive options may be granted under the 2018 Plan until March 7, 2028. Other awards may be granted under the 2018 Plan until the date that is ten years from the date of shareholder approval.

2018 Plan Benefits

Because the grant of awards under the 2018 Plan is within the discretion of the Board of Directors, the Company cannot determine the dollar value or number of common shares that will in the future be received by or allocated to any participant in the 2018 Plan. Accordingly, in lieu of providing information regarding benefits that will be received under the 2018 Plan, the following table provides information concerning the benefits that were received by the following persons and groups under the 2018 Plan during 2019: each named executive officer; all current executive officers, as a group; all current directors who are not executive officers, as a group; and all current employees who are not executive officers, as a group.

<u>Name & Position</u>	<u>Option Awards</u>		<u>Stock Awards</u>	
	<u>Number of Awards (#)</u>	<u>Average Exercise Price (\$)</u>	<u>Number of Awards (#)</u>	<u>Dollar Value (\$)(1)</u>
Samarth Kulkarni, Ph.D, <i>Chief Executive Officer</i>	250,000	\$ 40.87	120,000	\$ 8,775,600
Tony W. Ho, M.D., <i>EVP, Head of Research and Development</i>	75,000	\$ 40.87	50,000	\$ 3,333,900
James R. Kasinger, <i>General Counsel</i>	65,000	\$ 40.87	30,000	\$ 1,924,600
Lawrence O. Klein, Ph.D., <i>Chief Business Officer and Chief Operating Officer</i>	65,000	\$ 37.49	70,000	\$ 3,984,600
Michael J. Tomsicek, <i>Chief Financial Officer</i>	75,000	\$ 40.87	20,000	\$ 1,462,600
All current officers, as a group	530,000	\$ 40.45	290,000	\$19,481,300
All current directors, who are not executive officers, as a group (2)	120,000	\$ 43.52	—	\$ —
All current employees, who are not executive officers, as a group (2)	2,182,784	\$ 38.61	213,600	\$11,822,999

- (1) The valuation of stock awards is based on the grant date fair value computed in accordance with FASB ASC Topic 718. For a discussion of the assumptions used in calculating these values, see Note 9 to our consolidated financial statements in our annual report on Form 10-K for the year ended December 31, 2019.
- (2) Represents the weighted-average exercise price for the group.

Tax Aspects Under the Code

The following is a summary of the principal U.S. federal income tax consequences of certain transactions under the 2018 Plan. It describes the consequences based on U.S. federal laws in effect as of the date of mailing of this proxy statement. This summary does not describe all U.S. federal tax consequences under the 2018 Plan, nor does it describe foreign, state or local tax consequences.

Incentive Options. No taxable income is generally realized by the optionee upon the grant or exercise of an incentive option. If common shares issued to an optionee pursuant to the exercise of an incentive option are sold or transferred after two years from the date of grant and after one year from the date of exercise, then upon sale of such shares, any amount realized in excess of the option price (the amount paid for the shares) will be taxed to the optionee as a long-term capital gain, and any loss sustained will be a long-term capital loss. The exercise of an incentive option will give rise to an item of tax preference that may result in alternative minimum tax liability for the optionee.

If common shares acquired upon the exercise of an incentive option are disposed of prior to the expiration of the two-year and one-year holding periods described above (a “disqualifying disposition”), generally the optionee will realize ordinary income in the year of disposition in an amount equal to the excess (if any) of the fair market value of the common shares at exercise (or, if less, the amount realized on a sale of such common shares) over the option price thereof. Special rules will apply where all or a portion of the exercise price of the incentive option is paid by tendering common shares.

If an incentive option is exercised at a time when it no longer qualifies for the tax treatment described above, the option is treated as a non-qualified option. Generally, an incentive option will not be eligible for the tax treatment described above if it is exercised more than three months following termination of employment (or one year in the case of termination of employment by reason of disability). In the case of termination of employment by reason of death, the three-month rule does not apply.

Non-Qualified Options. No income is realized by the optionee at the time the option is granted. Generally (i) at exercise, ordinary income is realized by the optionee in an amount equal to the difference between the option price and the fair market value of the common shares on the date of exercise, and (ii) at disposition, appreciation or depreciation after the date of exercise is treated as either short-term or long-term capital gain or loss depending on how long the common shares have been held. Special rules will apply where all or a portion of the exercise price of the non-qualified option is paid by tendering common shares. Upon exercise, the optionee will also be subject to Social Security taxes on the excess of the fair market value over the exercise price of the option.

Other Awards. Participants typically are subject to income tax and recognize such tax at the time that an award is exercised, vests or becomes non-forfeitable, unless the award provides for a further deferral.

Parachute Payments. The vesting of any portion of an option or other award that is accelerated due to the occurrence of a change in control (such as a sale event) may cause a portion of the payments with respect to such accelerated awards to be treated as “parachute payments” as defined in the Code. Any such parachute payments may be non-deductible to the Company, in whole or in part, and may subject the recipient to a non-deductible 20% federal excise tax on all or a portion of such payment (in addition to other taxes ordinarily payable).

Limitation on Deductions. Under Section 162(m) of the Code, assuming that such section were applicable, the Company’s deduction for certain awards under the 2018 Plan may be limited to the extent that any “covered employee” (within the meaning of Section 162(m) of the Code) receives compensation in excess of \$1 million a year.

Proposal 9: Approval of Increasing the Maximum Number of Authorized Share Capital and Extending the Date by which the Board of Directors may Increase the Share Capital.

Explanation

The Board of Directors proposes to increase the authorized share capital to CHF 915'548.49, corresponding to the issuance of up to 30,518,283 shares, and to extend the date by which the Board of Directors may increase the share capital to June 10, 2022, and to amend art. 3a para. 1 of the Articles of Association to reflect the foregoing as set forth below. We have a history of operating losses and expect to continue to incur operating losses for the foreseeable future. We expect that we will need to continue to raise additional capital including through the sale of our capital stock. Since our 2019 annual general meeting we completed, among other issuances, an underwritten public offering of an aggregate of 4.9 million common shares for aggregate net proceeds of \$294 million and we issued and sold an aggregate of 2.8 million common shares under Open Market Sale AgreementSM entered into with Jefferies LLC in August 2018 for aggregate net proceeds of approximately \$120 million. Any issuance of additional shares could have the effect of diluting existing shareholders existing ownership and voting interests in the Company. We have no current plans, agreements, arrangements or understandings, whether written or oral, relating to the issuance of the additional authorized common shares that will become available as a result of the proposed amendment of art. 3a para. 1 of the Articles of Association. Pursuant to our existing Articles of Association, our Board of Directors is authorized to issue shares of capital stock representing this share capital for a period of two years from our annual general meeting. We have historically sought, and intend to continue to seek, authorization at each annual general meeting to extend the period of time our Board of Directors may issue additional capital stock for an additional year. Current version:

Art. 3a Authorized Share Capital

The Board of Directors is authorized to increase the share capital, in one or several steps until 10 June 2021, by a maximum amount of CHF 577'395.09 by issuing a maximum of 19'246'503 registered shares with a par value of CHF 0.03 each, to be fully paid up. An increase of the share capital (i) by means of an offering underwritten by a financial institution, a syndicate or another third party or third parties, followed by an offer to the then-existing shareholders of the Company and (ii) in partial amounts shall also be permissible.

Art. 3a Genehmigtes Kapital

Der Verwaltungsrat ist ermächtigt, jederzeit bis zum 10. Juni 2021 das Aktienkapital im Maximalbetrag von CHF 577'395.09 durch Ausgabe von höchstens 19'246'503 vollständig zu liberierende Namenaktien mit einem Nennwert von je CHF 0.03 zu erhöhen. Eine Erhöhung des Aktienkapitals (i) durch die Zeichnung von Aktien aufgrund eines von einem Finanzinstitut, eines Verbandes, einer anderen Drittpartei oder Drittparteien unter-zeichneten Angebots, gefolgt von einem An-gebot gegenüber den zu diesem Zeitpunkt bestehenden Aktionären der Gesellschaft sowie (ii) in Teilbeträgen ist zulässig.

New version (changes in *italics*):

Art. 3a Authorized Share Capital

The Board of Directors is authorized to increase the share capital, in one or several steps until *10 June 2022*, by a maximum amount of CHF *915'548.49* by issuing a maximum of *30'518'283* registered shares with a par value of CHF 0.03 each, to be fully paid up. An increase of the share capital (i) by means of an offering underwritten by a financial institution, a syndicate or another third party or third parties, followed by an offer to the then-existing shareholders of the Company and (ii) in partial amounts shall also be permissible.

Art. 3a Genehmigtes Kapital

Der Verwaltungsrat ist ermächtigt, jederzeit bis zum *10. Juni 2022* das Aktienkapital im Maximalbetrag von CHF *915'548.49* durch Ausgabe von höchstens *30'518'283* vollständig zu liberierende Namenaktien mit einem Nennwert von je CHF 0.03 zu erhöhen. Eine Erhöhung des Aktienkapitals (i) durch die Zeichnung von Aktien aufgrund eines von einem Finanzinstitut, eines Verbandes, einer anderen Drittpartei oder Drittparteien unter-zeichneten Angebots, gefolgt von einem An-gebot gegenüber den zu diesem Zeitpunkt bestehenden Aktionären der Gesellschaft sowie (ii) in Teilbeträgen ist zulässig.

Voting Requirement to Approve Proposal

The affirmative “**FOR**” vote of at least two thirds of the represented share votes (in person or by proxy) at the 2020 Annual General Meeting.

Recommendation

Our Board of Directors recommends a vote “**FOR**” the increase of the maximum number of authorized share capital and the extension of the date by which the Board of Directors may increase authorized share capital

Proposal 10: Re-Election of Independent Voting Rights Representative

Explanation

Pursuant to the “Minder Ordinance”, Swiss law requires that the independent representative of the shareholders (Independent Representative) be elected on the occasion of each annual general meeting for a one-year term ending at the closing of the following annual general meeting.

The Board of Directors proposes that lic. iur. Marius Meier, Attorney at Law, Lautengartenstrasse 7, CH-4052 Basel, be re-elected as Independent Representative for a one-year term ending at the closing of the 2021 annual general meeting.

Shareholders may either represent their shares themselves or have them represented by a third party, whether or not a shareholder, if the latter is given a written proxy. In accordance with Swiss law, each shareholder may be represented at the general meeting by the Independent Representative, Mr. Meier, or by a third-party proxy. Mr. Meier is a notary public and has served as the Independent Representative at the Company’s previous annual general meetings.

Under Swiss corporate law, the Independent Representative must satisfy strict independence requirements. In the absence of instructions, the Independent Representative must abstain from voting. General voting instructions can be given with respect to a particular general meeting of shareholders with respect to proposals and agenda items that have not been disclosed in the invitation to the general meeting.

Voting Requirement to Approve Proposal

The affirmative “**FOR**” vote of a majority of the votes cast in person or by proxy at the 2020 Annual General Meeting, not counting unmarked, invalid and non-exercisable votes and abstentions.

Recommendation

Our Board of Directors recommends a vote “**FOR**” the re-election of Mr. Meier as Independent Representative.

Proposal 11: Re-election of Ernst & Young AG as our statutory auditor for the term office of one year and the election of Ernst & Young LLP as the Company’s independent registered public accounting firm for the year ending December 31, 2020

Explanation

Upon recommendation of the Audit Committee, the Board of Directors proposes that Ernst & Young AG be re-elected as statutory auditor for the Company and Ernst & Young LLP be re-elected as the Company’s independent registered public accounting firm for the year ending December 31, 2020. Ernst & Young AG assumed its first audit mandate for the Company during the year ended December 31, 2013 and Ernst & Young LLP assumed its first audit mandate for the Company during the year ended December 31, 2015. Pursuant to Swiss law, the shareholders must elect the auditors of the Company.

Information on the fees paid by the Company to Ernst & Young AG and LLP, the Company’s auditors and independent registered public accounting firm for the years ended December 31, 2019 and December 31, 2018 is set forth below. Additional information regarding Ernst & Young AG and LLP, is included in the “Report of the Audit Committee.”

Members of Ernst & Young AG will be present at the annual general meeting, will have the opportunity to make a statement, and will be available to respond to appropriate questions you may ask.

Audit Fees and Services

The following table summarizes the fees of Ernst & Young billed to us for each of the last two years.

Fee Category	Year ended December 31, 2019	Year ended December 31, 2018
Audit Fees(1)	\$ 1,488,132	\$ 1,733,707
Audit-Related Fees(2)	73,500	97,197
Tax Fees(3)	35,700	—
All Other Fees(4)	2,000	2,000
Total	\$ 1,599,332	\$ 1,832,904

- (1) “Audit Fees” consist of fees for the audit of our annual consolidated financial statements, the review of the interim financial statements included in our quarterly reports on Form 10-Q, costs associated with securities offerings, audits of statutory audit financial statements, and other professional services provided in connection with regulatory filings or consultations on accounting matters directly related to the audit and assistance with, review of, and consents for, documents filed with the SEC.
- (2) “Audit-Related Fees” consist of fees billed by Ernst & Young LLP for assurance and related services that are reasonably related to the performance of audit services required for Swiss regulatory purposes other than the audit of our financial statements.
- (3) Tax fees are related to tax advisory services and international tax compliance.
- (4) Consist of aggregate fees billed for products and services provided by the independent registered public accounting firm other than those disclosed above. These fees consisted of fees for access to Ernst & Young’s online accounting research tool. All such accountant services and fees were pre-approved by our Audit Committee in accordance with the “Pre-Approval Policies and Procedures” described below.

Pre-Approval Policies and Procedures

Our Audit Committee has adopted procedures requiring the pre-approval of all non-audit services performed by our independent registered public accounting firm in order to assure that these services do not impair the auditor's independence. These procedures generally approve the performance of specific services subject to a cost limit for all such services. This general approval is reviewed, and if necessary modified, at least annually. Management must obtain the specific prior approval of the Audit Committee for each engagement of the independent registered public accounting firm to perform other audit-related or other non-audit services. The Audit Committee does not delegate its responsibility to approve services performed by the independent registered public accounting firm to any member of management.

The standard applied by the Audit Committee in determining whether to grant approval of any type of non-audit service, or of any specific engagement to perform a non-audit service, is whether the services to be performed, the compensation to be paid therefore and other related factors are consistent with the independent registered public accounting firm's independence under guidelines of the SEC and applicable professional standards. Relevant considerations include whether the work product is likely to be subject to, or implicated in, audit procedures during the audit of our financial statements, whether the independent registered public accounting firm would be functioning in the role of management or in an advocacy role, whether the independent registered public accounting firm's performance of the service would enhance our ability to manage or control risk or improve audit quality, whether such performance would increase efficiency because of the independent registered public accounting firm's familiarity with our business, personnel, culture, systems, risk profile and other factors, and whether the amount of fees involved, or the non-audit services portion of the total fees payable to the independent registered public accounting firm in the period would tend to reduce the independent registered public accounting firm's ability to exercise independent judgment in performing the audit.

Voting Requirement to Approve Proposal

The affirmative "**FOR**" vote of a majority of the votes cast in person or by proxy at the 2020 Annual General Meeting, not counting unmarked, invalid and non-exercisable votes and abstentions.

Recommendation

The Board of Directors recommends a vote "**FOR**" the election of Ernst & Young AG as the statutory auditor of the Company and the election of Ernst & Young LLP as the Company's independent registered public accounting firm, each for the year ending December 31, 2020.

STOCK OWNERSHIP AND REPORTING

Security Ownership of Certain Beneficial Owners and Management

Unless otherwise provided below, the following table sets forth information regarding beneficial ownership of our common shares as of March 15, 2020 by:

- each person, or group of affiliated persons, known to us to be the beneficial owner of 5% or more of the outstanding shares of our common shares;
- each of our current directors;
- our principal executive officer, our principal financial officer and our three other executive officers who served during the year ended December 31, 2019, named in the Summary Compensation table above, whom we collectively refer to as our named executive officers; and
- all of our executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common shares. Our common shares subject to options that are currently exercisable or will become exercisable within 60 days after March 15, 2020 are considered outstanding and beneficially owned by the person holding the options for the purpose of calculating the percentage ownership of that person, but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, to our knowledge, the persons and entities in this table have sole voting and investing power with respect to all of the common shares beneficially owned by them, subject to applicable community property laws. The inclusion herein of any shares as beneficially owned does not constitute an admission of beneficial ownership.

The column entitled “Percentage of Shares Beneficially Owned” is based on a total of 60,888,163 common shares outstanding as of March 15, 2020. Except as otherwise set forth below, the address of the beneficial owner is c/o CRISPR Therapeutics AG, Baarerstrasse 14, 6300 Zug, Switzerland.

Name and address of beneficial owner	Shares Beneficially Owned	
	Number	Percent
5% Shareholders		
Entities affiliated with Versant Ventures (1)	4,205,615	6.9%
Nikko Asset Management Americas, Inc. (2)	3,049,553	5.0%
S.R. One, Limited (3)	3,294,377	5.4%
Directors and Executive Officers		
Samarth Kulkarni, Ph.D. (4)	874,735	1.4%
Rodger Novak, M.D. (5)	1,068,018	1.8%
Tony W. Ho (6)	298,937	*
James R. Kasinger (7)	146,436	*
Lawrence O. Klein, Ph.D. (8)	185,750	*
Michael J. Tomsicek (9)	158,889	*
Ali Behbahani, M.D. (10)	73,949	*
Bradley Bolzon, Ph.D. (11)	4,279,365	7.0%
Simeon J. George, M.D. (12)	3,294,377	5.4%
John T. Greene (13)	12,917	*
Katherine A. High, M.D. (14)	9,167	*
All executive officers and directors as a group (11 persons)	10,402,540	17.1%

* Indicates beneficial ownership of less than 1% of the total issued and outstanding common shares.

(1) Based solely on (i) a schedule 13D/A filed with the SEC on June 28, 2019 by Versant Venture Capital IV, L.P., or VVC IV, Versant Side Fund IV, L.P., or VSF IV, Versant Venture Capital V, L.P., or VVC V,

- Versant Affiliates Fund V, L.P., or VAF V, Versant Ophthalmic Affiliates Fund I, L.P., or VOA, Versant Venture Capital V (Canada) LP, or VVC CAN; and (ii) Form 4s filed with the SEC on October 30, 2019 and November 19, 2019 by Dr. Bolzon with respect to shares held by Versant Venture Management, LLC, or VVM. Consists of 2,238,979 common shares beneficially owned by VVC IV, 13,277 common shares beneficially owned by VSF IV, 1,192,139 common shares beneficially owned by VVC V, 34,977 common shares beneficially owned by VAF V, 38,772 common shares beneficially owned by VOA, 90,730 common shares beneficially owned by VVC CAN, and 596,741 common shares beneficially owned by VVM. Versant Ventures IV, LLC, or VV IV, serves as the sole general partner of VVC IV and VSF IV and owns no shares directly. Brian G. Atwood, Samuel D. Colella, Ross A. Jaffe, William J. Link, Rebecca B. Robertson, Bradley Bolzon, Ph.D., Charles M. Warden, Kirk G. Nielsen, Thomas Woiwode and Robin L. Praeger are managing directors of VV IV and share voting and dispositive power over the shares held by VVC IV and VSF IV; however, they each disclaim beneficial ownership of the shares held by VVC IV and VSF IV, except to the extent of their pecuniary interests therein. Versant Ventures V, LLC, or VV V, serves as the sole general partner of VOA, VAF V and VVC V and owns no shares directly. Versant Ventures V (Canada) GP-GP, Inc. or VV V CAN GP, serves as the sole general partner of Versant Ventures V (Canada), L.P., or VV V CAN, which serves as the sole general partner of VVC CAN and owns no shares directly. Samuel D. Colella, William J. Link, Bradley Bolzon, Ph.D., Robin L. Praeger, Kirk G. Nielson, Jerel C. Davis and Thomas Woiwode, Ph.D. are managing directors of VV V and directors of VV V CAN GP and share voting and dispositive power over the shares held by VOA, VAF V, VVC V and VVC CAN; however, they each disclaim beneficial ownership of the shares held by VOA, VAF V, VVC V and VVC CAN, except to the extent of their pecuniary interests therein. Drs. Bolzon and Woiwode are managing directors of VVM, an affiliate of VV IV and VV V, and they each disclaim beneficial ownership of the shares held by VVM except to the extent of their pecuniary interests therein. Dr. Bolzon is a member of our Board of Directors; Dr. Woiwode was a member of our board of director through our 2019 annual general meeting. The address for each of the Versant Ventures entities is One Sansome Street, Suite 3630, San Francisco, CA 94104.
- (2) Based solely on a Schedule 13G filed with the SEC on February 12, 2020 by Nikko Asset Management Americas, Inc. The securities reported by Nikko Asset Management Americas, Inc., as subsidiary to the parent holding companies of Sumitomo Mitsui Trust Holdings Inc. and Nikko Asset Management Co., Ltd., are owned, or may be deemed to be beneficially owned, by such parent holding companies. The address for Nikko Asset Management Americas, Inc. is 605 Third Avenue, 38th Floor, New York, NY 10158.
 - (3) Based solely on a Schedule 13D/A filed with the SEC on February 14, 2020 by GlaxoSmithKline plc and the Company's equity records (with respect to stock options). Consists of (a) 3,220,627 common shares owned directly and (b) 73,750 common shares issuable upon exercise of stock options granted to Dr. George that are exercisable within 60 days of March 15, 2020. S.R. One, Limited is an indirect, wholly-owned subsidiary of GlaxoSmithKline plc. Dr. George is the chief executive officer and president of S.R. One, Limited, an employee of GlaxoSmithKline plc, and a member of our Board of Directors. Dr. George disclaims beneficial ownership of these shares, except to the extent of his pecuniary interest therein. The principal address for S.R. One, Limited is S.R. One, Limited is 161 Washington Street, Suite 500, Conshohocken, Pennsylvania 19428.
 - (4) Consists of (a) 159,859 common shares owned directly and (b) 714,876 common shares issuable upon exercise of stock options granted to Dr. Kulkarni that are exercisable within 60 days of March 15, 2020.
 - (5) Consists of (a) 848,007 common shares owned directly and (b) 220,011 common shares issuable upon exercise of stock options granted to Dr. Novak that are exercisable within 60 days of March 15, 2020.
 - (6) Consists of (a) 47,605 common shares owned directly, (b) 251,332 common shares issuable upon exercise of stock options granted to Dr. Ho that are exercisable within 60 days of March 15, 2020.
 - (7) Consists of 146,436 common shares issuable upon exercise of stock options granted to Mr. Kasinger that are exercisable within 60 days of March 15, 2020.
 - (8) Consists of 185,750 common shares issuable upon exercise of stock options granted to Dr. Klein that are exercisable within 60 days of March 15, 2020.
 - (9) Consists of 158,889 common shares issuable upon exercise of stock options granted to Mr. Tomsicek that are exercisable within 60 days of March 15, 2020.

- (10) Consists of (a) 199 common shares owned directly and (b) 73,750 common shares issuable upon exercise of stock options granted to Dr. Behbahani that are exercisable within 60 days of March 15, 2020.
- (11) Consists of (a) 73,750 common shares issuable upon exercise of stock options granted to Dr. Bolzon that are exercisable within 60 days of March 15, 2020 and (b) the shares disclosed in footnote (3) above. Dr. Bolzon is a managing director of VV IV, VV V and VVM and a director of VV V CAN GP. Dr. Bolzon disclaims beneficial ownership of the shares held by VVC IV, VSF IV, VOA, VAF V, VVC V, VVC CAN and VVM, except to the extent of his pecuniary interests therein.
- (12) Consists of the shares disclosed in footnote (3) above. Dr. George is the chief executive officer and president of S.R. One, Limited. Dr. George has no dispositive power with regard to any shares held by S.R. One, Limited and disclaims beneficial ownership of the shares held by S.R. One Limited, except to the extent of his pecuniary interest in such shares.
- (13) Consists of 12,917 common shares issuable upon exercise of stock options granted to Mr. Greene that are exercisable within 60 days of March 15, 2020.
- (14) Consists of 9,167 common shares issuable upon exercise of stock options granted to Ms. High that are exercisable within 60 days of March 15, 2020.

Restrictions on Voting Rights

Pursuant to Article 4 of our current Articles of Association, each share is entitled to one vote. Our current Articles of Association contain, however, certain restrictions on voting rights.

No person or entity shall be registered with voting rights over its shares (including “Controlled Shares” as defined below) that exceed 5 % or more of the registered share capital recorded in the commercial register of the Canton of Zug. This restriction of registration also applies to persons acquiring shares through the exercise of conversion and/or option rights granted in connection with bonds or similar instruments, including convertible debt instruments. Furthermore, this restriction of registration applies to persons who hold some or all of their shares through nominees.

Persons who do not expressly declare in the registration application that they are holding the shares on their own account (nominees) shall forthwith be recorded in the share register as shareholders with voting rights up to a maximum of 3 percent of the share capital. Beyond that limit, registered shares of nominees shall only be entered as voting if the nominees in question confirm in writing that they are willing to disclose the names, addresses and shareholdings of the persons on whose account they hold 0.5 percent or more of the share capital.

When exercising voting rights, no person or entity can accumulate voting rights over its shares (including over “Controlled Shares” as defined below) of more than 15% of the registered share capital recorded in the commercial register of the Canton of Zug. This restriction on exercise of voting rights does not apply to the exercise of voting rights by the independent voting rights representative.

“Controlled Shares” in reference to any individual or entity means:

- a) all shares of the Company directly, indirectly or constructively owned by such individual or entity; it being further understood that
 - i. shares owned, directly or indirectly, by or for a partnership, or trust or estate will be considered as being owned proportionately by its partners or beneficiaries to such partners’ or beneficiaries’ economic equivalent in such partnership, trust or estate; and;
 - ii. shares owned, directly or indirectly, by or for a corporation will be considered as being owned by such individual to the extent such individual exercises the power to vote, or to direct the voting, of such shares;
 - iii. shares subject to options, warrants or other similar rights shall be deemed to be owned.

- b) all shares of the Company directly, indirectly or beneficially owned by such individual or entity; it being further understood that
 - i. a beneficial owner of a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship, or otherwise alone or together with other such persons has or shares: (1) voting power which includes the power to vote, or to direct the voting of, such security; and/or (2) investment power which includes the power to dispose, or to direct the disposition of, such security;
 - ii. any person who, directly or indirectly, creates or uses a trust, proxy, power of attorney, pooling arrangement or any other contract, arrangement, or device with the purpose or effect of divesting such person of beneficial ownership of shares of the Company or preventing the vesting of such beneficial ownership as part of a plan or scheme to evade the provisions of these articles of association shall be deemed to be the beneficial owner of such shares;
 - iii. a person shall be deemed to be the beneficial owner of shares if that person has the right to acquire beneficial ownership of such shares within 60 days, including but not limited to any right acquired: (1) through the exercise of any option, warrant or right; (2) through the conversion of a security; (3) pursuant to the power to revoke a trust, discretionary account, or similar arrangement; or (4) pursuant to the automatic termination of a trust, discretionary account or similar arrangement.

Furthermore, with respect to our authorized share capital, the Board of Directors is authorized to withdraw or limit the preemptive rights of the shareholders and to allot them to third parties following a shareholder or a group of shareholders acting in concert having accumulated shareholdings in excess of 15% of the share capital registered in the commercial register without having submitted to the other shareholders a takeover offer recommended by the Board of Directors, or for the defense of an actual, threatened or potential takeover bid, in relation to which the Board of Directors, upon consultation with an independent financial adviser retained by it, has not recommended to the shareholders acceptance on the basis that the Board of Directors has not found the takeover bid to be financially fair to the shareholders.

The Board of Directors may in special cases approve exceptions to the above regulations. Pursuant to an exception to the regulations approved by the Board of Directors, entities affiliated with Versant Ventures may vote on all matters that come before shareholders. In addition to approving exceptions in special cases to the above regulations, the Board of Directors is also authorized, after due consultation with the person concerned, to delete with retroactive effect entries in the share register which were effected on the basis of false information.

OTHER MATTERS

As of the date of this proxy statement, we know of no matter not specifically referred to above as to which any action is expected to be taken at the 2020 Annual General Meeting. The persons named as proxies will vote the proxies, insofar as they are not otherwise instructed, regarding such other matters and the transaction of such other business as may be properly brought before the meeting, as seems to them to be in the best interest of our Company and our shareholders.

Shareholder Proposals and Directors Nominations

Under our Articles of Association, one or more registered shareholders who together represent shares representing at least the lesser of (i) ten percent of our issued share capital or (ii) an aggregate par value of one million Swiss francs may demand that an item be placed on the agenda of a meeting of shareholders. Any such proposal must be included by the Board of Directors in our materials for the meeting. A request for inclusion of an item on the agenda must be requested in writing delivered to or mailed and received at the registered office of the Company at least 120 calendar days before the first anniversary of the date that the Company's proxy statement was released to shareholders in connection with the previous year's annual general meeting. As such, the deadline for inclusion of a shareholder proposal for the 2020 Annual General Meeting was January 1, 2020. With respect to the 2021 annual general meeting of shareholders, the deadline to receive proposals for the agenda is expected to be December 28, 2020.

In addition, if you are a registered shareholder and satisfy the shareholding requirements under Rule 14a-8 of the Exchange Act, you may submit a proposal for consideration by the Board of Directors for inclusion in the 2021 annual general meeting agenda by delivering a request and a description of the proposal to the General Counsel and Secretary of the Company at secretary@crisprtx.com no later than December 28, 2020, which is 120 calendar days before the anniversary date of the company's proxy statement released to shareholders in connection with the previous year's annual general meeting. The proposal will need to comply with Rule 14a-8 of the Exchange Act, which lists the requirements for the inclusion of shareholder proposals in company-sponsored proxy materials under U.S. securities laws.

Nominations of director candidates by registered shareholders must follow the rules for shareholder proposals above. Assuming that appropriate biographical and background material has been provided on a timely basis, the Nominating Committee will evaluate shareholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others. If the board determines to nominate a shareholder-recommended candidate and recommends his or her election, then his or her name will be included in our proxy card for the next annual general meeting.

Householding of Annual General Meeting Materials

Some brokers and other nominee record holders may be "householding" our proxy materials. This means a single notice and, if applicable, the proxy materials will be delivered to multiple shareholders sharing an address unless contrary instructions have been received. We will promptly deliver a separate copy of the notice and, if applicable, the proxy materials and our annual report to shareholders, which consists of our Annual Report on Form 10-K for the year ended December 31, 2019, to you if you write or call us at CRISPR Therapeutics AG, Baarerstrasse 14, 6300 Zug, Switzerland, Attn: General Counsel and Secretary, telephone +41 (0)41 561 32 77 and CRISPR Therapeutics, Inc., 610 Main Street, Cambridge, Massachusetts 02139, Attn: General Counsel and Secretary, telephone: +1 617 315-4600. If you would like to receive separate copies of our proxy materials and annual reports in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address and telephone number.

CRISPR THERAPEUTICS AG
AMENDMENT NO. 2 TO THE
2018 STOCK OPTION AND INCENTIVE PLAN

The CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan (the “Plan”), is hereby amended as follows:

Section 3(a) of the Plan is hereby amended by deleting it and replacing it with the following:

Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 12,500,000 shares, plus the number of shares remaining available for issuance under the Company’s Amended and Restated 2016 Stock Option and Grant Plan (the “2016 Plan”) as of immediately prior to the Effective Date, subject to adjustment as provided in Section 3. For purposes of this limitation, the shares of Stock underlying any Awards under the Plan or any shares of Stock underlying any awards under the Company’s 2015 Stock Option and Grant Plan or the 2016 Plan that are forfeited, canceled, held back upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) shall be added back to the shares of Stock available for issuance under the Plan. In the event the Company repurchases shares of Stock on the open market, such shares shall not be added to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award; provided, however, that no more than 25,005,365 shares of the Stock may be issued in the form of Incentive Stock Options. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company.

ADOPTED BY BOARD OF DIRECTORS: March 10, 2020

ADOPTED BY STOCKHOLDERS:

