

To the shareholders of CRISPR Therapeutics AG

Invitation to the Annual General Shareholders' Meeting

Date: June 8, 2023, at 8:00 a.m. CEST

Place: Offices of Walder Wyss Ltd., Seefeldstrasse 123,
8008 Zurich, Switzerland

Important Notice: Please also read the accompanying proxy statement, which forms an integral part of this notice. The proxy statement contains in particular: the statement of reasons for the below proposals of the Company's board of directors (pages 54–79), details regarding admission to the meeting and persons eligible to vote (page 3), the voting procedure (pages 3–5) and details regarding the independent voting representative (page 5).

Dear Shareholders:

You are cordially invited to the 2023 annual general meeting of shareholders, or the 2023 Annual General Meeting, of CRISPR Therapeutics AG, or the Company, to be held on June 8, 2023 at 8:00 a.m. Central European Summer Time (2:00 a.m. Eastern Daylight Time) as a physical meeting at the offices of Walder Wyss Ltd., Seefeldstrasse 123, 8008 Zurich, Switzerland. At the 2023 Annual General Meeting, the Company's board of directors, or the Board of Directors, will propose to the Company's shareholders to consider and vote on the below matters. The Company's common shares are listed only on The Nasdaq Global Market and are traded under the symbol "CRSP."

Agenda Items and Proposals of the Board of Directors:

1. Approval of the Swiss management report, the consolidated financial statements and the statutory financial statements of the Company for the year ended December 31, 2022.

The Board of Directors proposes to the shareholders to approve the Swiss management report, the consolidated financial statements and the statutory financial statements of the Company for the year ended December 31, 2022 and to take note of the reports of the auditors. Copies of these documents are available for download at www.proxydocs.com/CRSP and in our 2022 Annual Report (as defined below).

2. Approval of the appropriation of financial results.

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

Proposed Appropriation of Net Loss: in Swiss Francs ("CHF")

| | |
|--|-------------------|
| Balance brought forward from previous years | CHF (353,161,175) |
| Net loss for the period (on a stand-alone unconsolidated basis): | CHF (584,087,541) |
| Total accumulated net loss: | CHF (937,248,716) |

Resolution proposed by the Board of Directors:

- RESOLVED, that the net loss for the period of CHF 584,087,541 shall be carried forward.

3. Discharge of the members of the Board of Directors and Executive Committee.

The Board of Directors proposes to the shareholders that the members of the Board of Directors and the executive committee of the Company, or the Executive Committee, be discharged from personal liability for the business year ended December 31, 2022.

4. Re-election of the members to the Board of Directors.

The Board of Directors proposes to the shareholders 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., Ali Behbahani, M.D., H. Edward Fleming, Jr., M.D., Simeon J. George, M.D., John T. Greene, Katherine A. High, M.D., Douglas A. Treco, Ph.D., and Maria Fardis, Ph.D. be re-elected as directors, each for a term extending until completion of the 2024 annual general meeting of shareholders. Information on the professional backgrounds and qualifications of each director nominee, as well as information on committee memberships, can be found under "Board of Directors and Corporate Governance—Election of Directors" on pages 6-8 in the accompanying proxy statement and is available at www.proxydocs.com/CRSP.

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 Maria Fardis, Ph.D.

4.e Re-election of H Edward Fleming, Jr., M.D.

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

4.g Re-election of John T. Greene

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

4.i Re-election of Douglas A. Treco, Ph.D.

5. Election or re-election of the members of the Compensation Committee.

The Board of Directors proposes to the shareholders to elect or re-elect, as appropriate, each of Ali Behbahani, M.D., H. Edward Fleming, Jr., 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 2024 annual general meeting of shareholders. Information on the professional backgrounds and qualifications of each director nominee can be found under "Board of Directors and Corporate Governance—Election of Directors" on pages 7-8 in the accompanying proxy

statement and are available at www.proxydocs.com/CRSP.

5.a Re-election of Ali Behbahani, M.D.

5.b Election of H. Edward Fleming, Jr., M.D.

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

5.d Re-election of John T. Greene

6. Approval of the compensation for the Board of Directors and the Executive Committee and non-binding advisory vote on the 2022 Compensation Report.

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

6.a Binding vote on maximum non-performance-related compensation for members of the Board of Directors from the 2023 Annual General Meeting to the 2024 annual general meeting of shareholders.

The Board of Directors proposes to the shareholders to approve the maximum amount of non-performance-related compensation for the members of the Board of Directors covering the period from the 2023 Annual General Meeting to the 2024 annual general meeting of shareholders, i.e., USD \$507,000 (cash based compensation).

6.b Binding vote on maximum equity for members of the Board of Directors from the 2023 Annual General Meeting to the 2024 annual general meeting of shareholders.

The Board of Directors proposes to the shareholders to approve the maximum grant of equity or equity linked instruments for the members of the Board of Directors covering the period from the 2023 Annual General Meeting to the 2024 annual general meeting of shareholders with maximum value of USD \$11,738,100 (equity grant date value).

6.c Binding vote on maximum non-performance-related compensation for members of the Executive Committee from July 1, 2023 to June 30, 2024.

The Board of Directors proposes to the shareholders to approve the maximum amount of non-performance-related cash compensation for the members of the Executive Committee covering the period from July 1, 2023 to June 30, 2024, i.e., USD \$3,700,579 (cash base compensation plus social security costs).

6.d Binding vote on maximum variable compensation for members of the Executive Committee for the current year ending December 31, 2023.

The Board of Directors proposes to the shareholders to approve the maximum amount of variable compensation for the members of the Executive Committee for the current year ending December 31, 2023, i.e., USD \$3,195,625 (cash compensation plus social security costs).

6.e Binding vote on maximum equity for members of the Executive Committee from the 2023 Annual General Meeting to the 2024 annual general meeting of shareholders.

The Board of Directors proposes to the shareholders to approve the maximum of equity or equity linked instruments for the members of the Executive Committee covering the period from the 2023 Annual General Meeting of shareholders to the 2024 annual general meeting of shareholders with maximum value of USD \$55,827,593 (equity grant date value).

6.f Non-binding advisory vote on the 2022 Compensation Report.

The Board of Directors proposes to the shareholders the endorsement (a non-binding advisory vote) of the 2022 Compensation Report. The 2022 Compensation Report is available for download at www.proxydocs.com/CRSP and in our 2022 Annual Report (as defined below).

7. Non-binding advisory vote to approve the compensation paid to the Company's named executive officers under U.S. securities law requirements.

The Board of Directors proposes to the shareholders to approve an advisory resolution approving the compensation of the Company's named executive officers, as disclosed in the accompanying proxy statement for the 2023 Annual General Meeting pursuant to the executive compensation disclosure rules promulgated by the Securities and Exchange Commission.

8. Approval of a capital band.

The Board of Directors proposes to the shareholders the introduction of a capital band ranging from CHF 2,506,150.41 (lower limit) to CHF 2,920,321.14 (upper limit) in art. 3a of the articles of association of the Company, or the Articles of Association, as a replacement of the current authorized capital. The Board of Directors shall be authorized within the capital band to increase the share capital once or several times and in any amounts within this range, until June 8, 2028, or until an earlier expiry of the capital band. The Board of Directors shall also be authorized to amend art. 3a para. 1, 2, 4 and 5 of the Articles of Association, to reflect the foregoing as follows:

Art. 3a Capital Band

Para. 1:

The Board of Directors is authorized, to conduct one or more increases of the share capital at any time until June 8, 2028, or the expiry of the capital band if earlier, within a lower limit of CHF 2,506,150.41 and an upper limit of CHF 2,920,321.14, corresponding to 13,805,691 registered shares with a nominal value of CHF 0.03 each to be fully paid in. An increase

Art. 3a Kapitalband

Der Verwaltungsrat ist ermächtigt, das Aktienkapital jederzeit bis zum 8. Juni 2028 oder dem früheren Dahinfallen des Kapitalbands einmal oder mehrmals innerhalb der Untergrenze von CHF 2'506'150.41 und der Obergrenze von CHF 2'920'321.14 durch Ausgabe von höchstens 13'805'691 vollständig zu liberierende Namenaktien mit einem Nennwert von je CHF 0.03 zu erhöhen. Eine Erhöhung des

of the share capital 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 shall also be permissible.

Para. 2:

The Board of Directors shall determine the number of shares, the time of the issuance, the issue price, the manner in which the new registered shares have to be paid in (including cash contributions, contributions in kind, set-off and conversion of freely usable reserves (including retained earnings) into share capital), the date from which the registered shares carry the right to dividends, the conditions for the exercise of the subscription rights and the allotment of subscription rights that have not been exercised or withdrawn. The Board of Directors is authorized to restrict or to prohibit the trading of subscription rights to the new shares. The Board of Directors may allow subscription rights that have not been exercised to expire, or it may place with third parties such rights or registered shares, the subscription rights of which have not been exercised, at market conditions or use them otherwise in the interest of the Company.

Para. 4:

The Board of Directors is authorized to carry out a capital increase by increase of the nominal value of the shares within the capital band. The Board of Directors shall determine the new nominal value of the shares and shall adapt all provisions of the Articles of Association relating to the nominal value of a share as well as the number of shares with a new nominal value corresponding to the fixed lower and upper limit of the capital band as per this Article.

Para. 5:

Subscription to and acquisition of new shares, as well as any subsequent transfer of their ownership are subject to the restrictions specified in Article 4 of the Articles of Association.

9. Approval of an increase in the conditional share capital for employee equity plans.

The Board of Directors proposes to the shareholders to increase the Company's conditional share capital for employee equity plans by 1,700,000 common shares in order to cover any future share issuances due to the exercise of equity incentive awards under the Company's employee equity plans and to 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 629,679.39 through the issue of a maximum of 20,989,313 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.

Aktienkapitals 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 ist zulässig.

Der Verwaltungsrat soll die Anzahl auszugebender Aktien, den Ausgabezeitpunkt, den Bezugspreis, die Art und Weise der Liberierung, das Datum, ab welchem die Aktien zum Bezug einer Dividende berechtigen, die Bedingungen zur Ausübung der Bezugsrechte sowie die Zuteilung nicht ausgeübter oder entzogener Bezugsrechte festlegen. Betreffend die Art der zu leistenden Einlagen ist der Verwaltungsrat namentlich ermächtigt, eine Kapitalerhöhung durch Barliberierung, Sacheinlage, Verrechnungsliberierung, Umwandlung von frei verwendbaren Reserven (einschliesslich Gewinnvortrag) in Aktienkapital vorzunehmen. Der Verwaltungsrat kann den Bezugsrechtshandel betreffend die neu auszugebenden Aktien einschränken oder aufzuheben. Der Verwaltungsrat kann bestimmen, dass nicht ausgeübte Bezugsrechte verfallen, oder er kann Drittparteien solche Rechte oder Aktien, für welche die Bezugsrechte nicht ausgeübt wurden, zu Marktbedingungen zuteilen oder sie sonst im Interesse der Gesellschaft verwenden.

Der Verwaltungsrat ist ermächtigt, eine Kapitalerhöhung durch Nennwerterhöhung innerhalb des Kapitalbands durchzuführen. Der Verwaltungsrat setzt diesfalls den neuen Nennwert der Aktien fest und passt sämtliche Statutenbestimmungen an, die sich auf den Nennwert einer Aktie beziehen sowie die Anzahl Aktien mit neuem Nennwert, welche der festen betragsmässigen Ober- und Untergrenze des Kapitalbands gemäss diesem Artikel entsprechen.

Zeichnung und Erwerb der neu ausgegebenen Namenaktien sowie jede nachfolgende Übertragung dieser Namenaktien unterliegen den Beschränkungen von Art. 4 dieser Statuten.

10. Approval of an amendment to the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan.

The Board of Directors proposes to the shareholders to amend the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan, or the 2018 Plan, by (a) increasing the total number of common shares which may be issued pursuant to the 2018 Plan by 1,700,000 common shares, increasing the total number of common shares issuable under the 2018 Plan to 16,400,000 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) increasing the number of shares that may be issued under the 2018 Plan in the form of incentive stock options by 1,700,000 common shares.

11. Approval of a reduction in the maximum size of the Board of Directors.

The Board of Directors proposes to reduce the maximum size of the Board of Directors to 10 members, and to amend art. 20 of the Articles of Association to reflect the foregoing as follows:

Art. 20 Number of Members, Term of Office

The Board of Directors shall consist of at least 3 and not more than 10 members. The chairman and the members of the Board of Directors are individually elected by the General Meeting for a term of one year until the end of the next Ordinary General Meeting, provided that he/she does not resign or is not replaced during his/her term.

The members of the Board of Directors may be re-elected without limitation. The maximum age limit of members of the Board shall be 75 years. When a member of the Board of Directors reaches this age limit during his term of office, such term shall automatically extend to the next Ordinary General Meeting. The General Meeting may resolve to grant an exception to the age limit.

Art. 20 Anzahl der Mitglieder, Amtsdauer

Der Verwaltungsrat besteht aus mindestens 3 und höchstens 10 Mitgliedern. Der Präsident sowie die Mitglieder des Verwaltungsrates werden jeweils für die Dauer von einem Jahr bis zum Ende der nächsten ordentlichen Generalversammlung einzeln gewählt. Vorbehalten bleiben vorheriger Rücktritt oder Abberufung.

Die Mitglieder des Verwaltungsrates sind jederzeit wieder wählbar. Die oberste Altersgrenze von Mitgliedern des Verwaltungsrates beträgt 75 Jahre. Wenn ein Mitglied des Verwaltungsrates diese Altersgrenze während seiner Amtszeit erreicht, wird diese automatisch zur nächsten ordentlichen Generalversammlung verlängert. Die Generalversammlung kann eine Ausnahme von der Altersgrenze beschliessen.

12. Approval of amendments to the Articles of Association to reflect revised Swiss corporate law and other changes.

The Board of Directors proposes to the shareholders to approve the amendment of various provisions of the Articles of Association.

Under agenda item 12.a the Board of Directors proposes to the shareholders to amend the Company's purpose statement to include an emphasis on identifying and creating long-term and sustainable value and the possibility of intra-group financing and, therefore, to amend art. 2 para. 3 and 5 of the Articles of Association.

Under agenda items 12.b–12.e, the Board of Directors proposes to the shareholders to approve various amendments to the Articles of Association with which it intends to (i) implement changes required under the revised Swiss corporate law that came into force on 1 January 2023, (ii) grant the Company certain flexibility provided under the new law, and (iii) update the Articles of Association in line with current best corporate governance practices.

12.a Additions to the purpose of the Company

The Board of Directors proposes to the shareholders to approve the amendment of art. 2 para. 3 and 5 of the Articles of Association.

12.b General Meeting abroad and virtual General Meeting

The Board of Directors proposes to the shareholders to approve the amendment of art. 9 and art. 11 para. 3 of the Articles of Association.

12.c Inclusion of a jurisdiction clause

The Board of Directors proposes to the shareholders to approve the amendment of art. 47 of the Articles of Association.

12.d Alignment with compulsory new regulations

The Board of Directors proposes to the shareholders to approve the amendment of art. 3b para. 3, art. 3c para. 2, art. 8, art. 10, art. 11 para. 2, 4 and 5, art. 12, art. 15, art. 16 para. 3, art. 17 para. 3, art. 18 para. 2, art. 21, art. 23 para. 1, art. 26 para. 2, art. 28 para. 1, art. 30 para. 1, art. 36 para. 1, art. 37, art. 38, art. 46 para. 2 and 3 of the Articles of Association.

12.e Editorial and other changes

The Board of Directors proposes to the shareholders to approve the amendment of art. 3a para. 3, art. 3b para. 1, art. 4 para. 2 and 8, art. 5 para. 3, art. 6, art. 11 para. 1, art. 11 para. 8 (English only), art. 13, art. 14 (English only), art. 16 para. 2, art. 18 para. 1 and 3 (English only), art. 25, art. 29 para. 1 and 2 (German only), art. 29 para. 3 (English only), art. 29 para. 8, art. 31 (English only), art. 32 para. 1 and 2, art. 32 para. 3 (English only), art. 33 para. 1 and 3, art. 33 para. 2 (English only), art. 34, art. 35 (English only), art. 39, art. 40 para. 2 (English only), art. 40 para. 3, art. 41 para. 1 of the Articles of Association.

The full text of the proposed new Articles of Association can be found in [Appendix A](#) to the accompanying proxy statement.

13. Re-election of the independent voting rights representative.

The Board of Directors proposes to the shareholders the re-election of lic. iur. Marius Meier, Attorney at Law, Bratschi AG, Lange Gasse 15, P.O. Box CH-4002 Basel, Switzerland, as the independent voting rights representative until the closing of the 2024 annual general meeting of shareholders.

14. Re-election of the auditors.

The Board of Directors proposes to the shareholders to re-elect Ernst & Young AG, Basel, 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, 2023.

15. Transact any other business that may properly come before the 2023 Annual General Meeting or any adjournment or postponement thereof.

The Board of Directors proposes to the shareholders for any other business that may properly come before the 2023 Annual General Meeting or any adjournment or postponement thereof, to follow the respective proposal of the Board of Directors as proposed at the 2023 Annual General Meeting.

The foregoing items of business are more fully described in the accompanying 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 17, 2023 will be entitled to notice of and to vote at the 2023 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.

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

®

Important Notice Regarding Internet Availability of Proxy Materials: The proxy statement and our 2022 annual report to shareholders, or the 2022 Annual Report, which includes our Annual Report on Form 10-K for the year ended December 31, 2022, are available at www.proxydocs.com/CRSP. These documents are also available to any shareholder who wishes to receive a paper copy by calling (800) 579-1639, by emailing sendmaterial@ProxyVote.com or by submitting a request over the Internet at www.ProxyVote.com.