

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

**FORM S-8  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**CRISPR THERAPEUTICS AG**

(Exact name of registrant as specified in its charter)

Switzerland  
(State or other jurisdiction of  
incorporation or organization)

Not applicable  
(I.R.S. Employer  
Identification Number)

Baarerstrasse 14  
6300 Zug  
Switzerland  
+41 61 228 7800

(Address, including Zip Code, and Telephone Number, including Area Code, of Registrant's Principal Executive Offices)

CRISPR Therapeutics AG  
2018 Stock Option and Incentive Plan  
(Full title of the plan)

C T Corporation System  
111 Eighth Avenue  
New York, NY 10011  
(212) 894-8800

(Name, address, including zip code, and telephone number, including area code, of agent for service)

*Copies to:*

Mitchell S. Bloom  
Robert E. Puopolo  
Seo Salimi  
Goodwin Procter LLP  
100 Northern Avenue  
Boston, MA 02210  
(617) 570-1000

James R. Kasinger  
General Counsel and Secretary  
CRISPR Therapeutics AG  
Baarerstrasse 14  
6300 Zug  
Switzerland  
+41 61 228 7800

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer   
Non-accelerated filer  Smaller reporting company   
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

**CALCULATION OF REGISTRATION FEE**

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Shares, CHF 0.03 per share:				
2018 Stock Option and Incentive Plan	4,000,000 (2)	\$49.035 (3)	\$196,140,000	\$23,772.17
Total	4,000,000		\$196,140,000	\$23,772.17

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional common shares which become issuable under the above-named plan by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the receipt of consideration which results in an increase in the number of our outstanding shares of common stock. Pursuant to Rule 416(c) under the Securities Act, this Registration Statement shall also cover an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plan described herein.
- (2) Represents an increase to the number of shares available for future issuance under the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan, as amended by the Amendment No. 1 thereto (such plan, the "2018 Plan" and such amendment, the "Plan Amendment"). Shares available for issuance under the Plan were previously registered on the registration statement on Form S-8 filed with the Securities and Exchange Commission (the "Commission") on June 1, 2018.

- (3) Estimated pursuant to Rule 457(c) and Rule 457(h) solely for the purpose of calculating the registration fee. The proposed maximum offering price per share and proposed maximum aggregate offering price are based on the average of the high and low sale prices of the Registrant's common stock as reported on The Nasdaq Global Market on July 24, 2019.
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**Part I**

**EXPLANATORY NOTE**

This Registration Statement on Form S-8 relating to the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan (the “2018 Plan”) of CRISPR Therapeutics AG (the “Registrant”) is being filed for the purpose of registering an additional 4,000,000 of the Registrant’s common shares, CHF 0.03 per share, as other securities for which a Registration Statement on Form S-8 has previously been filed and is effective. Accordingly, this Registration Statement on Form S-8 incorporates by reference the contents of the Registration Statement on Form S-8 (File No. 333-225369) filed with the Securities and Exchange Commission on June 1, 2018 by the Registrant, relating to the 2018 Plan except for “Item 8. Exhibits.”

**Part II**

**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 8. Exhibits.**

<u>Exhibit Number</u>	<u>Description</u>
4.1	<a href="#"><u>Amended and Restated Articles of Association (incorporated herein by reference to Exhibit 3.1 to the Registrant’s Current Report on Form 8-K filed on June 13, 2019).</u></a>
4.2	<a href="#"><u>Subscription Agreement, dated December 19, 2015, by and between CRISPR Therapeutics AG and Bayer Global Investments B.V. (incorporated herein by reference to Exhibit 4.1 to the Registrant’s Registration Statement on Form S-1 filed on September 9, 2016).</u></a>
5.1	<a href="#"><u>Opinion of Walder Wyss AG, Swiss counsel of CRISPR Therapeutics AG, as to the validity of the common shares.</u></a>
23.1	<a href="#"><u>Consent of Ernst &amp; Young LLP, Independent Registered Public Accounting Firm.</u></a>
23.2	<a href="#"><u>Consent of Ernst &amp; Young LLP, Independent Registered Public Accounting Firm, with respect to the consolidated financial statements of Casebia Therapeutics LLP.</u></a>
23.3	<a href="#"><u>Consent of Walder Wyss AG (included in Exhibit 5.1).</u></a>
24.1	<a href="#"><u>Power of Attorney (included on the signature page).</u></a>
99.1	<a href="#"><u>CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan (incorporated herein by reference to Exhibit 99.1 to the Registrant’s Registration Statement on Form S-8 filed on June 1, 2018).</u></a>
99.2	<a href="#"><u>Amendment No.1 to the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan (incorporated herein by reference to Appendix A to the Registrant’s Definitive Proxy Statement on Schedule 14A filed on April 30, 2019).</u></a>
99.3	<a href="#"><u>Form of Incentive Stock Option Agreement under the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan (incorporated herein by reference to Exhibit 99.2 to the Registrant’s Registration Statement on Form S-8 filed on June 1, 2018).</u></a>
99.4	<a href="#"><u>Form of Non-Qualified Stock Option Agreement for Company Employees under the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan (incorporated herein by reference to Exhibit 99.3 to the Registrant’s Registration Statement on Form S-8 filed on June 1, 2018).</u></a>
99.5	<a href="#"><u>Form of Non-Qualified Stock Option Agreement for Non-Employee Directors under CRISPR Therapeutics AG’s 2018 Stock Option and Incentive Plan (incorporated herein by reference to Exhibit 99.4 to the Registrant’s Registration Statement on Form S-8 filed on June 1, 2018).</u></a>
99.6	<a href="#"><u>Form of Restricted Stock Award under the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan (incorporated herein by reference to Exhibit 99.5 to the Registrant’s Registration Statement on Form S-8 filed on June 1, 2018).</u></a>

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**Exhibit  
Number**

**Description**

- 99.7 [Form of Restricted Stock Award Agreement for Company Employees under the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan \(incorporated herein by reference to Exhibit 99.6 to the Registrant's Registration Statement on Form S-8 filed on June 1, 2018\).](#)
- 99.8 [Form of Restricted Stock Award Agreement for Non-Employee Directors under the CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan \(incorporated herein by reference to Exhibit 99.7 to the Registrant's Registration Statement on Form S-8 filed on June 1, 2018\).](#)

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boston, Commonwealth of Massachusetts on July 29, 2019.

**CRISPR THERAPEUTICS AG**

By: /s/ Samarth Kulkarni, Ph.D.  
Name: Samarth Kulkarni, Ph.D.  
Title: *Chief Executive Officer*

KNOW ALL BY THESE PRESENT, that each individual whose signature appears below hereby constitutes and appoints each of Samarth Kulkarni, Michael Tomsicek and James R. Kasinger, as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons on the date indicated below in the capacities indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Samarth Kulkarni</u> Samarth Kulkarni	Chief Executive Officer and Director (principal executive officer)	July 29, 2019
<u>/s/ Michael Tomsicek</u> Michael Tomsicek	Chief Financial Officer (principal financial and accounting officer)	July 29, 2019
<u>/s/ Rodger Novak</u> Rodger Novak	Chairman and Director	July 29, 2019
<u>/s/ Ali Behbahani</u> Ali Behbahani	Director	July 29, 2019
<u>/s/ Bradley Bolzon</u> Bradley Bolzon	Director	July 29, 2019
<u>/s/ Simeon J. George</u> Simeon J. George	Director	July 29, 2019
<u>/s/ Pablo Cagnoni</u> Pablo Cagnoni	Director	July 29, 2019
<u>/s/ Katherine A. High</u> Katherine A. High	Director	July 29, 2019

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<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ John T. Greene</u> John T. Greene	Director	July 29, 2019
<u>/s/ James R. Kasinger</u> James R. Kasinger	Authorized Representative in the United States	July 29, 2019

Walder Wyss Ltd.  
Seefeldstrasse 123  
P.O. Box  
8034 Zurich  
Switzerland

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www.walderwyss.com

To:

CRISPR Therapeutics AG  
Baarerstrasse 14  
6300 Zug  
Switzerland

Zurich, as of 29 July 2019

**CRISPR Therapeutics AG – Swiss Legal Opinion (Registration Statement on Form S-8)**

Dear Madam, Dear Sir,

We have acted as Swiss counsel to CRISPR Therapeutics AG, Zug, Switzerland (the **Company**) in connection with the filing of a registration statement on Form S-8 (the **Registration Statement**, which term does not include any other document or agreement whether or not specifically referred to therein or attached as an exhibit or schedule thereto) by the Company with the U.S. Securities and Exchange Commission (the **Commission**) pursuant to the Securities Act of 1933, as amended (the **Securities Act**) on 29 July 2019 for the purpose of registering under the Securities Act the offer of 4,000,000 registered common shares, par value of currently CHF 0.03 each of the Company, which may be issued on the basis of the Plan (as defined below) under the Company's conditional share capital (such shares, the **Shares** and each a **Share**).

As such counsel, we have been requested to render an opinion as to certain matters of Swiss law.

**1. Scope and Limitation of Opinion**

Our opinion is strictly confined to matters of Swiss law as in force at the date hereof and as it is presently applied by the Swiss courts. Such law and its interpretation are subject to change. In the absence of explicit statutory law or established case law, we base our opinion solely on our independent professional judgment. Our opinion is strictly limited to the Documents (as defined below) and the matters stated herein and is not to be read as extending, by implication or otherwise, to any agreement or document referred to in any of the Documents or any other matter. For purposes of this opinion, we have not conducted any due diligence or similar investigation or verification as to any matters stated herein. In this opinion, Swiss legal concepts are expressed in English terms and not in their original language. These concepts may not be identical to the concepts described by the same English language terms as they exist under the laws of other jurisdictions.

**2. Documents**

For purposes of rendering the opinion expressed herein, we have received the following documents (the **Documents**):

- (a) a .pdf copy of the Registration Statement;

- (b) a .pdf copy of a certain CRISPR Therapeutics AG 2018 Stock Option and Incentive Plan (the **Plan**);
- (c) a .pdf copy of the public deed on the resolutions of the Company's ordinary shareholders' meeting dated 11 June 2019, approving, *inter alia*, certain changes to the Company's articles of association (the **AGM Resolution**);
- (d) a certified copy of the articles of association of the Company in their version of 11 June 2019 (the **Articles**);
- (e) a certified excerpt from the Commercial Register of the Canton of Zug dated 25 July 2019 relating the Company and its Articles (the **Excerpt**); and
- (f) a .pdf copy of the resolution of the board of directors of the Company (the **Board**) dated 11 June 2019, approving, *inter alia*, the changes to the Plan for the Company (the **Board Resolution**).

No documents have been reviewed by us in connection with this opinion other than the Documents listed in this Section 2 (*Documents*).

All terms used in this opinion in uppercase form shall have the meaning ascribed to them in the Registration Statement, unless otherwise defined herein.

### 3. Assumptions

In rendering the opinion below, we have assumed:

- (a) the conformity to the Documents of all documents produced to us as copies, fax copies or via e-mail, and that the original was executed in the manner appearing on the copy of the draft;
- (b) the genuineness and authenticity of the signatures on all copies of the original Documents thereof which we have examined, and the accuracy of all factual information contained in, or statements given in connection with, the Documents;
- (c) the AGM Resolution has been duly resolved in a meeting duly convened and has not been rescinded or amended and is and will remain in full force and effect;
- (d) the Board Resolution has been duly resolved in a meeting duly convened, or, respectively, in duly executed circular resolutions and has not been rescinded or amended and is and will remain in full force and effect;
- (e) the Articles and the Excerpt are unchanged and correct as of the date hereof and no changes have been made which should have been or should be reflected in the Articles and the Excerpt as of the date hereof;
- (f) the legal capacity, power and authority of each of the parties (other than the Company) to enter into and perform its obligations under the Plan as well as the due authorization, execution and delivery of the Plan or any document thereunder by each of the parties thereto (including the Company) and that all consents or approvals from and filings, registrations and notifications with or to all governmental authorities (other than in Switzerland) required in connection with the execution, delivery and performance of the Plan have been obtained or made and are in full force and effect;
- (g) the Plan is in full force and effect, has not been rescinded, either in whole or in part, and that there is no matter affecting the authority of the Board to approve the adoption or assumption of the Plan and filing of the registration statement which would have any adverse implication in relation to the opinions expressed herein;
- (h) the Plan constitutes legal, valid, binding and enforceable obligations of the Company under the governing law;



- (i) all authorizations, approvals, consents, licenses, exemptions and other requirements, other than those required under the laws of Switzerland, for the legality, validity and enforceability of the Plan have been duly obtained and are and will remain in full force and effect;
- (j) the exercise of the options under the Plan will be in accordance with the Plan;
- (k) the exercise price of any option granted is at least the current par value of CHF 0.03 per Share and is paid by the option holder to the Company;
- (l) at the time of any issuance of Shares under the Plan, the Company will have according to article 3c of the Articles sufficient conditional share capital to issue the required number of new Shares to be delivered to option holders exercising options granted under the Plan; and
- (m) the (i) requisite reports of the Company's auditors according to article 653f of the Swiss Code of Obligations (the CO); (ii) the amendments of the Articles according to article 653g CO; and (iii) the entry of the corresponding share capital increase into the Commercial Register of the Canton of Zug will be given or made.

#### 4. Opinion

Based upon the foregoing and subject to the qualifications set out below, we are of the following opinion:

The Shares, if and when issued and paid for in accordance with the Articles and, provided the issue price for such Shares has been fully paid-in, will be validly issued, fully paid-in and non-assessable.

#### 5. The above opinions are subject to the following qualifications:

- (a) The lawyers of our firm are members of the Swiss bar and do not hold themselves to be experts in any laws other than the laws of Switzerland. Accordingly, we are opining herein as to Swiss law only and we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction.
- (b) This opinion is based on the current provisions of the laws of Switzerland and the regulations thereunder in effect on the date hereof and only as currently interpreted in Switzerland. Such laws and their interpretation are subject to change.
- (c) We express no opinion as regards the withdrawal of the shareholders' preferential subscription rights (*Vorwegzeichnungsrechte*) in connection with any issuance of Shares.
- (d) When used in this opinion, the term "non-assessable" means that no further contributions have to be made to the Company by the relevant holder of the Shares.
- (e) We express no opinion as to the future availability of conditional share capital of the Company.
- (f) We express no opinion as to the accuracy or completeness of the information contained in the Registration Statement.
- (g) It should be noted that pursuant to article 706 and 706a of the CO, the shareholders are entitled to challenge resolutions adopted by the shareholders' meeting (*Generalversammlungsbeschlüsse*) that violate the law or a company's articles of association by initiating legal proceedings against a company within two months following such meeting. Such period has not lapsed with respect to the AGM Resolution.
- (h) We express no opinion as to any commercial, calculating, auditing or other non-legal matters. Further, we express no opinion as to tax law.

**6. Miscellaneous**

- (a) We do not assume any obligation to advise you of any changes in applicable law or any other matter that may come to our attention after the date hereof that may affect our opinion expressed herein.
- (b) We hereby consent to the filing of this opinion on the date hereof with the Commission as an exhibit to the Registration Statement and to the incorporation by reference of this opinion in the Registration Statement. In giving this consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act.
- (c) This opinion and all matters relating to this opinion are governed by and shall be construed in accordance with the substantive laws of Switzerland, the ordinary Courts of Zurich having exclusive jurisdiction.

Yours faithfully,  
Walder Wyss AG

/s/ Alex Nikitine

Alex Nikitine

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2018 Stock Option and Incentive Plan of CRISPR Therapeutics AG of our reports dated February 25, 2019, with respect to the consolidated financial statements of CRISPR Therapeutics AG and the effectiveness of internal control over financial reporting of CRISPR Therapeutics AG included in its Annual Report (Form 10-K) for the year ended December 31, 2018, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts  
July 29, 2019

CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2018 Stock Option and Incentive Plan of CRISPR Therapeutics AG of our report dated February 25, 2019, with respect to the consolidated financial statements of Casebia Therapeutics LLP included in the Annual Report (Form 10-K) of CRISPR Therapeutics AG for the year ended December 31, 2018, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts  
July 29, 2019