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

Amendment No. 1
to
FORM S-3
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
+41 561 3277

(Address, including zip code, and telephone number, including area code of registrant's principal executive offices)

CT 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
+41 561 3277

From time to time after the effective date of this Registration Statement
(Approximate date of commencement of proposed sale to the public)

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This Amendment No. 1 to the Registration Statement on Form S-3 of CRISPR Therapeutics AG (File No. 333-221491) is an exhibits-only submission to refile Exhibit 5.1. Accordingly, this Amendment No. 1 consists only of the facing page, this explanatory note, Part II of the Registration Statement, including the signature page, the exhibit index, and the exhibits filed herewith. The prospectus is unchanged and has therefore been omitted from this filing.

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the estimated costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the offering of the securities being registered. All the amounts shown are estimates, except for the SEC registration fee.

SEC registration fee	\$37,350
FINRA filing fee	\$45,500
Accounting fees and expenses	(1)
Legal fees and expenses	(1)
Transfer agent fees and expenses	(1)
Trustee fees and expenses	(1)
Printing fees	(1)
Miscellaneous expenses	(1)
Total	\$ (1)

(1) These fees are calculated based on the securities offered and the number of issuances and, accordingly, cannot be estimated at this time.

Item 15. Indemnification of Officers and Directors

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. These indemnification provisions and the indemnification agreements may be sufficiently broad to permit indemnification of our officers and directors for liabilities, including reimbursement of expenses incurred, arising under the Securities Act.

The foregoing may reduce the likelihood of derivative litigation against our directors and executive officers and may discourage or deter shareholders or management from suing directors or executive officers for breaches of their duty of care, even though such actions, if successful, might otherwise benefit the company and our shareholders.

At present, there is no pending litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification by the registrant.

We have the power to indemnify our other employees and other agents, as permitted by the Swiss law or any other applicable law, but we are not required to do so by Swiss law.

The underwriting agreement that we may enter into, Exhibit 1.1 to this Registration Statement, will provide for indemnification by any underwriters of the company, our directors, our officers who sign the registration statement and our controlling persons, if any, for some liabilities, including liabilities arising under the Securities Act.

Item 16. Exhibits and Financial Statement Schedules

A list of exhibits filed with this registration statement on Form S-3 is set forth on the Exhibit Index and is incorporated herein by reference.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that the undertakings set forth in paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are incorporated by reference in this registration statement or are contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

- (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
- (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424; (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant; (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and (iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(7) That for purposes of determining any liability under the Securities Act, (i) the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be a part of the registration statement as of the time it was declared effective; and (ii) each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(8) To file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the SEC under Section 305(b)(2) of the Trust Indenture Act.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description of Document</u>
1.1	Form of Underwriting Agreement (1)
3.1	<u>Amended and Restated Articles of Association of CRISPR Therapeutics AG (Previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-37923), filed with the Commission on July 25, 2017, and incorporated by reference herein.)</u>
4.1	<u>Form of Senior Debt Indenture between the Registrant and one or more trustees to be named (Previously filed as Exhibit 4.2 to the Registrant's Registration Statement on Form S-3 (File No. 333-221491), filed with the Commission on November 9, 2017, and incorporated by reference herein.)</u>
4.2	<u>Form of Subordinated Debt Indenture between the Registrant and one or more trustees to be named (Previously filed as Exhibit 4.3 to the Registrant's Registration Statement on Form S-3 (File No. 333-221491), filed with the Commission on November 9, 2017, and incorporated by reference herein.)</u>
4.3	Form of Note (1)
4.4	Form of Common Shares Warrant Agreement and Warrant Certificate (1)
4.5	Form of Debt Securities Warrant Agreement and Warrant Certificate (1)
4.6	<u>Registration Rights Agreement, dated as of June 10, 2016, by and among the Registrant and certain of its shareholders (Previously filed as Exhibit 10.9 to the Registrant's Registration Statement on Form S-1 (File No. 333-213577), filed with the Commission on September 9, 2016, and incorporated by reference herein.)</u>
4.9	Form of Subscription Rights Agreement (1)
5.1	<u>Opinion of Vischer AG</u>
12.1	<u>Computation of Ratio of Earnings to Fixed Charges (Previously filed as Exhibit 12.1 to the Registrant's Registration Statement on Form S-3 (File No. 333-221491), filed with the Commission on November 9, 2017, and incorporated by reference herein.)</u>
23.1	<u>Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm (Previously filed as Exhibit 23.1 to the Registrant's Registration Statement on Form S-3 (File No. 333-221491), filed with the Commission on November 9, 2017, and incorporated by reference herein)</u>
23.2	<u>Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm, with respect to the consolidated financial statements of Casebia Therapeutics LLP (Previously filed as Exhibit 23.2 to the Registrant's Registration Statement on Form S-3 (File No. 333-221491), filed with the Commission on November 9, 2017, and incorporated by reference herein)</u>
23.3	<u>Consent of Vischer AG (included in Exhibit 5.1)</u>
24.1	<u>Power of Attorney (included on signature page)(Previously filed with Registrant's Registration Statement on Form S-3 (File No. 333-221491), filed with the Commission on November 9, 2017, and incorporated by reference herein.)</u>
25.1	Form T-1 Statement of Eligibility of Trustee for Senior Indenture under the Trust Indenture Act of 1939 (1)
25.2	Form T-1 Statement of Eligibility of Trustee for Subordinated Indenture under the Trust Indenture Act of 1939 (1)

(1) To be filed by amendment or by a report filed under the Securities Exchange Act of 1934, as amended, and incorporated herein by reference, if applicable.

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-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Zug, Switzerland, on December 1, 2017.

CRISPR Therapeutics AG

By: /s/ Samarth Kulkarni
Samarth Kulkarni
Chief Executive Officer
(Principal Executive Officer)

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Dr. Samarth Kulkarni</u> Dr. Samarth Kulkarni	Chief Executive Officer and Director (Principal Executive Officer)	December 1, 2017
<u>/s/ Michael Tomsicek</u> Michael Tomsicek	Chief Financial Officer (Principal Financial Officer and Accounting Officer)	December 1, 2017
<u>*</u> Dr. Rodger Novak	President and Director	December 1, 2017
<u>*</u> Dr. N. Anthony Coles	Chairman and Director	December 1, 2017
<u>*</u> Dr. Ali Behbahani	Director	December 1, 2017
<u>*</u> Dr. Bradley Bolzon	Director	December 1, 2017

*

Dr. Simeon J. George

Director

December 1, 2017

*

Kurt von Emster

Director

December 1, 2017

*

Dr. Thomas Woiwode

Director

December 1, 2017

*

Dr. Pablo Cagnoni

Director

December 1, 2017

/s/ James R. Kasinger

James R. Kasinger

Authorized Representative in the United States

December 1, 2017

*By: /s/ Dr. Samarth Kulkarni

Dr. Samarth Kulkarni

Attorney-in-Fact

CRISPR Therapeutics AG
Baarerstrasse 14
6300 Zug

Basel, December 1, 2017

CRISPR Therapeutics AG – Registration Statement on Form S-3

VISCHER Ltd

Basel
Aeschenvorstadt 4
CH-4010 Basel
Switzerland
Phone +41 58 211 33 00
Fax +41 58 211 33 10

Zurich
Schützengasse 1
CH-8021 Zurich
Switzerland
Phone +41 58 211 34 00
Fax +41 58 211 34 10

Civil Law Notaries in Basel-City

Dear Sir or Madam,

This opinion is being rendered at the request of CRISPR Therapeutics AG (the “**Company**”) in connection with the filing of a registration statement on Form S-3 on November 9, 2017, as amended on December 1, 2017 (the “**Registration Statement**”) for the purpose of registering under the United States Securities Act of 1933, as amended (the “**Securities Act**”), relating to the registration of up to \$300’000’000 of any combination of (i) Common Shares, par value CHF 0.03 per share of the Company (the “**Common Shares**”), (ii) debt securities of the Company (“**Debt Securities**”), (iii) warrants to purchase Common Shares, Debt Securities or Units (as defined below) (“**Warrants**”), (iv) units comprised of Common Shares, Debt Securities and/or Warrants in any combination (“**Units**”) and/or (v) subscription rights to subscribe Common Shares or Warrants (“**Subscription Rights**”). The Common Shares, Debt Securities, Warrants, Units and Subscription Rights are sometimes referred to collectively herein as the “**Securities**.” Securities may be issued in an unspecified number (with respect to Common Shares, Warrants and Units) or in an unspecified principal amount (with respect to Debt Securities). The Registration Statement provides that the Securities may be offered separately or together, in separate series, in amounts, at prices and on terms to be set forth in one or more prospectus supplements (each a “**Prospectus Supplement**”) to the prospectus contained in the Registration Statement. As Swiss counsel to the Company, we have been requested to render an opinion as to certain matters of Swiss law.

I. BASIS OF OPINION

This opinion is confined to and given on the basis of the laws of Switzerland in force at the date hereof and as currently applied by Swiss courts. In the

absence of statutory or established case law, we base our opinion on our independent professional judgement.

This opinion is also confined to the matters stated herein and is not to be read as extending, by implication or otherwise, to any other matter.

For the purpose of giving this opinion, we have examined such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below, including but not limited to the following documents:

- a) a pdf copy of the Registration Statement dated as of November 7, 2017 as amended on December 1, 2017;
- b) a pdf copy of the notarized articles of association (*Statuten*) of the Company dated May 31, 2017 (the “**Articles**”), as filed with the Commercial Register of the Canton of Zug;
- c) an pdf copy of the excerpt from the Commercial Register of the Canton of Zug in respect of the Company, certified by such Commercial Register to be up-to-date as of July 19, 2017 (the “**Excerpt**”);

The documents referred to above in paragraphs a) to c) are referred to together as the “**Documents**”.

No documents have been reviewed by ourselves in connection with this opinion other than those listed above. Accordingly, our opinion is limited to the above Documents and their legal implications under Swiss law.

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

II. 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
- c) to the extent relevant for purposes of this opinion, all factual information contained in, or material statements given in connection with, the Documents are true, complete and accurate.

III. OPINION

For purposes of the opinions set forth below, we refer to the following as the “**Future Authorization and Issuance**” of Securities:

- a) with respect to any of the Securities, (a) the authorization by the Company of the amount, terms and issuance of such Securities (the “**Authorization**”) and (b) the issuance and registration of such

- a) Securities in the Commercial Register of the Canton of Zug, in accordance with the Authorization therefor upon the receipt by the Company of the consideration (which, in the case of shares of Common Shares is not less than the par value of such shares) to be paid therefor in accordance with the Authorization;
- b) with respect to Debt Securities, (a) the authorization, execution and delivery of the indenture or a supplemental indenture relating to such Securities by the Company and the trustee thereunder and/or (b) the establishment of the terms of such Securities by the Company in conformity with the applicable indenture or supplemental indenture and applicable law, and (c) the execution, authentication and issuance of such Securities in accordance with the applicable indenture or supplemental indenture and applicable law; and
- c) with respect to Warrants or Units, (a) the authorization, execution and delivery by the Company and the other parties thereto of any agreement under which such Securities are to be issued and (b) the establishment of the terms of such Securities, and the execution and delivery of such Securities, in conformity with any applicable agreement under which such Securities are to be issued and applicable law including the registration of Securities in the Commercial Register of the Canton of Zug.

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

1. Upon the Future Authorization and Issuance of shares of Common Shares, such Common Shares will be validly issued, fully paid and non-assessable (which term means when used herein that no further contributions have to be made by the holders of the Shares).
2. Upon the Future Authorization and Issuance of Debt Securities, such Debt Securities will be valid and binding obligations of the Company.
3. Upon the Future Authorization and Issuance of Warrants, such Warrants will be valid and binding obligations of the Company.
4. Upon the Future Authorization and Issuance of Units, such Units will be valid and binding obligations of the Company.
5. Upon the Future Authorization and Issuance of Subscription Rights, such Subscription Rights will be valid and binding obligations of the Company.

IV. QUALIFICATIONS

This opinion is subject to the following qualifications:

- a) This opinion is limited to matters of Swiss law as in force on the date hereof and as applied and construed by the courts of Switzerland.
- b) The opinion set forth herein is limited to the matters specifically addressed herein, and no other opinion or opinions are expressed or may be implied or inferred. In particular we express no opinion as to

any commercial, calculating, auditing or other non-legal matters. Further, we express no opinion as to tax law.

* * *

We have rendered this opinion as of the date hereof and we assume no obligation to advise you of changes that may thereafter be brought to our attention.

In this opinion, Swiss legal concepts are expressed in English terms and not in their original terms. The concepts concerned may not be identical to the concepts described by the same English terms as they exist under the laws of other jurisdictions. All liability and other matters relating to this opinion shall be governed exclusively by Swiss law.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the references to us under the heading "Legal Matters" contained in the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,

VISCHER AG

/s/ Dr. Matthias Staehelin

Dr. Matthias Staehelin