

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

**SCHEDULE 13G**

**Under the Securities Exchange Act of 1934  
(Amendment No. )\***

CRISPR THERAPEUTICS AG

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(Name of Issuer)

Common Shares, par value CHF 0.03 per share

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(Title of Class of Securities)

H17182108

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(CUSIP Number)

Michael Parini  
Vertex Pharmaceuticals Incorporated  
50 Northern Avenue  
Boston, Massachusetts 02210  
(617) 341-6100

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(Name, Address and Telephone Number of Person  
Authorized to Receive Notices and Communications)

November 25, 2019

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(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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1. NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Vertex Pharmaceuticals Incorporated ("Vertex US")

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2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP  
(see instructions)
- (a)
- (b)

- 
3. SEC USE ONLY

- 
4. CITIZENSHIP OR PLACE OF ORGANIZATION

Massachusetts

- 
5. SOLE VOTING POWER

0

- 
6. SHARED VOTING POWER

5,380,940 (1)

- 
7. SOLE DISPOSITIVE POWER

0

- 
8. SHARED DISPOSITIVE POWER

5,380,940 (1)

NUMBER OF SHARES  
BENEFICIALLY OWNED  
BY EACH REPORTING  
PERSON WITH

- 
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

5,380,940 (1)

- 
10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  
(see instructions)

- 
11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

9.1% (2)

- 
12. TYPE OF REPORTING PERSON (see instructions)

CO

(1) Amount consists of 5,380,940 Common Shares held by Vertex Europe. Vertex US may be deemed to have beneficial ownership over such shares since Vertex Europe is an indirect wholly-owned subsidiary of Vertex US.

(2) The ownership percentage has been calculated on the basis of 55,189,370 Common Shares outstanding as of November 20, 2019, as reported in CRISPR Therapeutics AG's (the "Company") Prospectus Supplement on Form 424B5 (the "Prospectus"), filed with the Securities and Exchange Commission on November 21, 2019, and 4,250,000 additional Common Shares issued by the Company as announced in the Prospectus.

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1. NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Vertex Pharmaceuticals (Europe) Limited ("Vertex Europe")

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP  
(see instructions)

(a)

(b)

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

England and Wales

5. SOLE VOTING POWER

0

6. SHARED VOTING POWER

5,380,940

7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

5,380,940

NUMBER OF SHARES  
BENEFICIALLY OWNED  
BY EACH REPORTING  
PERSON WITH

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

5,380,940

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES  
(see instructions)

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

9.1% (1)

12. TYPE OF REPORTING PERSON (see instructions)

OO

(1) The ownership percentage has been calculated on the basis of 55,189,370 Common Shares outstanding as of November 20, 2019, as reported in the Prospectus, and 4,250,000 additional Common Shares issued by the Company as announced in the Prospectus.

The reporting person previously filed on Schedule 13D, originally filed with the Securities and Exchange Commission on December 21, 2018, as amended by Amendment No. 1 filed on December 26, 2018, Amendment No. 2 filed on December 28, 2018 and Amendment No. 3 filed on June 7, 2019. The reporting person also previously filed on Schedule 13G, originally filed with the Securities and Exchange Commission on February 13, 2017.

**Item 1.**

- (a) Name of Issuer  
CRISPR THERAPEUTICS AG
- (b) Address of Issuer's Principal Executive Offices  
Baarerstrasse 14  
6300 Zug, Switzerland

**Item 2.**

- (a) Name of Person Filing  
Vertex Pharmaceuticals Incorporated
- (b) Address of the Principal Office or, if none, residence  
50 Northern Avenue  
Boston, Massachusetts 02210  
(617) 341-6100
- (c) Citizenship  
Massachusetts, United States
- (d) Title of Class of Securities  
Common Shares, par value CHF 0.03 per share
- (e) CUSIP Number  
H17182108

**Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:**

- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
  - (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
  - (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
  - (d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
  - (e)  An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
  - (f)  An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
  - (g)  A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
  - (h)  A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
  - (i)  A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
  - (j)  Group, in accordance with §240.13d-1(b)(1)(ii)(J).
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**Item 4. Ownership.**

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount beneficially owned: 5,380,940
- (b) Percent of class: 9.1%
- (c) Number of shares as to which the person has: 5,380,940
  - (i) Sole power to vote or to direct the vote: 0
  - (ii) Shared power to vote or to direct the vote: 5,380,940
  - (iii) Sole power to dispose or to direct the disposition of: 0
  - (iv) Shared power to dispose or to direct the disposition of: 5,380,940

**Item 5. Ownership of Five Percent or Less of a Class.**

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

**Item 6. Ownership of More than Five Percent on Behalf of Another Person.**

Not applicable.

**Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company.**

Not applicable.

**Item 8. Identification and Classification of Members of the Group.**

Not applicable.

**Item 9. Notice of Dissolution of Group.**

Not applicable.

**Item 10. Certification.**

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

VERTEX PHARMACEUTICALS INCORPORATED

/s/ Michael Parini

Michael Parini  
EVP, Chief Legal and Administrative Officer  
November 26, 2019

VERTEX PHARMACEUTICALS (EUROPE) LIMITED

/s/ Klas Holmlund

Klas Holmlund  
Director  
November 26, 2019