

CRISPR Therapeutics AG  
Form SC 13G  
February 13, 2017

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. \_\_\_)\*  
CRISPR Therapeutics AG  
(Name of Issuer)  
Common Shares, par value CHF 0.03 per share  
(Title of Class of Securities)  
H17182108  
(CUSIP Number)  
December 31, 2016  
(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 the disclosures provided in a prior cover page.

The information required in 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).

SCHEDULE 13G  
CUSIP No. H17182108

Names of Reporting Persons: Vertex  
1 Pharmaceuticals Incorporated ("Vertex  
US")

Check the appropriate box if a member of a  
2 Group (see instructions)  
(a)   
(b)   
3 Sec Use Only

Citizenship or Place of Organization:  
4 Massachusetts

Number of Shares of  
5 ~~Class~~ Voting Power: 0  
Number of Shares of  
6 ~~Class~~ Shared Voting Power: 3,186,586 (1)  
Beneficially  
7 Owned Sole Dispositive Power: 0  
by  
8 Each Shared Dispositive Power: 3,186,586 (1)  
Reporting  
9 Person  
With:

Aggregate Amount Beneficially Owned by  
9 Each Reporting Person: 3,186,586 (1)

Check box if the aggregate amount in row  
10 (9) excludes certain shares (See  
Instructions)

Percent of class represented by amount in  
11 row (9): 8.0% (2)

Type of Reporting Person (See  
12 Instructions): CO

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CUSIP No. H17182108

Names of Reporting Persons: Vertex  
1 Pharmaceuticals (Europe) Limited  
("Vertex Europe")

Check the appropriate box if a member of a  
2 Group (see instructions)

(a)

(b)

3 Sec Use Only

Citizenship or Place of Organization:  
4 United Kingdom

Number of Shares with Sole Voting Power: 0  
5 of

Number of Shares with Shared Voting Power: 3,186,586 (1)  
6 Beneficially

Number of Shares with Sole Dispositive Power: 0  
7 by

Number of Shares with Shared Dispositive Power: 3,186,586 (1)  
8 Each Reporting

Person

With:

Aggregate Amount Beneficially Owned by  
9 Each Reporting Person: 3,186,586 (1)

Check box if the aggregate amount in row  
10 (9) excludes certain shares (See  
Instructions)

Percent of class represented by amount in  
11 row (9): 8.0% (2)

Type of Reporting Person (See  
12 Instructions): CO

(1) Amount consists of 3,186,586 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 39,808,801 Common Shares outstanding as of November 21, 2016 as reported in the Issuer's Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on November 21, 2016.

Item 1.

(a) Name of Issuer:

CRISPR Therapeutics AG

(b) Address of Issuer's Principal Executive Offices:



Aeschenvorstadt 36, 4051 Basel, Switzerland

Item 2.

(a) Name of Person Filing:

Vertex Pharmaceuticals Incorporated ("Vertex US")

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

(b) Address of Principal Business Office or, if None, Residence:

Vertex US: 50 Northern Avenue, Boston, MA 02210

Vertex Europe: 2 Kingdom Street, 9th Floor, London W2 6BD U.K

(c) Citizenship:

Vertex US: Massachusetts

Vertex Europe: United Kingdom

(d) Title and Class of Securities:

Common Shares, par value CHF 0.03 per share

(e) CUSIP No.:

H17182108

Item 3. Statement filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c).

Not applicable.

Item 4. Ownership.

(a) Amount Beneficially Owned: 3,186,586 (1)

(b) Percent of Class: 8.0% (2)

(c) Number of shares as to which such person has:

(i) Sole power to vote or to direct the vote: 0

(ii) Shared power to vote or to direct the vote: 3,186,586 (1)

(iii) Sole power to dispose or to direct the disposition of: 0

(iv) Shared power to dispose or to direct the disposition of: 3,186,586 (1)

(1) Amount consists of 3,186,586 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 39,808,801 Common Shares outstanding as of November 21, 2016 as reported in the Issuer's Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on November 21, 2016.

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

Not applicable.

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 or control person.

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. Certifications.

Not applicable.

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SIGNATURE

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.

Dated: February 13, 2017

VERTEX PHARMACEUTICALS INCORPORATED

/s/ Ian Smith

Ian Smith

Executive Vice President, Chief Operating Officer  
and Chief Financial Officer

VERTEX PHARMACEUTICALS (EUROPE) LIMITED

/s/ Ian Smith

Ian Smith

Director