

| OMB APPROVAL                                 |           |
|--|-----------|
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**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

|   |   |   |
|---|---|---|
| 1. Name and Address of Reporting Person *<br><u>EMSTER KURT VON</u><br><br>(Last) (First) (Middle)<br><u>C/O CRISPR THERAPEUTICS, INC.</u><br><u>610 MAIN STREET</u><br><br>(Street)<br><u>CAMBRIDGE MA 02139</u><br><br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>CRISPR Therapeutics AG [ CRSP ]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)<br><input checked="" type="checkbox"/> Director 10% Owner<br><br>Officer (give title below) Other (specify below) |
|   | 3. Date of Earliest Transaction (Month/Day/Year)<br><u>05/31/2017</u>                 |   |
|   | 4. If Amendment, Date of Original Filed (Month/Day/Year)                              |   |
| 6. Individual or Joint/Group Filing (Check Applicable Line)<br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br><br>Form filed by More than One Reporting Person   |   |   |

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) |   | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) |            |       | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|-------|---|--|---|
|                                 |                                      |  | Code                           | V | Amount  | (A) or (D) | Price |   |  |   |

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) |   | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) |     | 6. Date Exercisable and Expiration Date (Month/Day/Year) |                 | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|--|--|---|--|
|  |  |                                      |  | Code                           | V | (A)  | (D) | Date Exercisable   | Expiration Date |   |  |  |   |  |
| Stock Option (Right to Buy)                | \$13.62  | 05/31/2017                           |  | A                              |   | 15,000   |     | (1)  | 05/31/2027      | Common Shares   | 15,000                                     | \$0.00   | 15,000  | D <sup>(2)(3)</sup>                                    |

**Explanation of Responses:**

- This option was granted on May 31, 2017 with respect to 15,000 Common Shares with 100% of the shares vesting in 12 equal monthly installments beginning June 30, 2017.
- The Reporting Person is a member of Abingworth LLP ("ALLP"). ALLP provides advisory services to Abingworth Bioventures VI, LP ("ABV VI"). Under an agreement between the Reporting Person and ALLP, the Reporting Person is deemed to hold this Option and any shares of common stock issuable upon exercise of the Option, for the benefit of ABV VI, and must exercise the Option solely upon the direction of ALLP.
- ABV VI may be deemed the indirect beneficial owner of the Option, and the Reporting Person may be deemed the indirect beneficial owner of the Option through his indirect interest in ABV VI. The Reporting Person disclaims beneficial ownership of the Option except to the extent, if any, of his pecuniary interest therein. This report shall not be deemed an admission that the Reporting Person, ALLP, ABV VI or any other person is the beneficial owner of the securities reported herein for purposes of Section 16 of the Securities Exchange Act of 1934, as amended, or for any other purpose.

**Remarks:**

/s/ Michael Esposito, attorney-in-fact 06/02/2017

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.