FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL | | | | | | | | |
|----------------------|-----------|--|--|--|--|--|--|--|
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| hours per response: | 0.5 | | | | | | | |

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

| FMR L | . Name and Address of Reporting Person* FMR LLC (Last) (First) (Middle) 245 SUMMER STREET | | | | | Issuer Name and Ticker or Trading Symbol REGENXBIO Inc. [RGNX] 3. Date of Earliest Transaction (Month/Day/Year) 04/12/2016 | | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director X 10% Owner Officer (give title X Other (specify below) See Remark 1 | | | | | | | |
|--|--|--|--|------|--------|---|--------------------------------|---|---|----------------------------|--|---|-------|--|--|--|---|--|---------------------------------------|--|--|
| (Street) BOSTON (City) | (Street) BOSTON MA 02210 | | | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | |
| Table I - Non-Deriva 1. Title of Security (Instr. 3) 2. Transaction Date (Month/Day/ | | | | | | | ion 2A. Deemed Execution Date, | | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) o | | | 5. Amount of Securities Beneficially Owned Following | | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership | | | |
| | | | | | Code | v | Amount | (A) or (D) | Price | | Reported Transaction(s) (Instr. 3 and 4) | | | | (Instr. 4) | | | | | | |
| Common Stock 04/12/20 | | | | | | | 016 | | S | | 2,302 | D | \$11. | .44(1) | 14 ⁽¹⁾ 828,549 | | I | | See footnote ⁽²⁾ | | |
| Common Stock 04/13/20 | | | | | | |)16 | | S | | 20,000 | D | \$11. | 1.44 ⁽³⁾ | | 808,549 | | I | See footnote ⁽²⁾ | | |
| Common Stock 04/14/20 | | | | | | 016 | | | S | | 4,734 | D | \$11. | \$11.57 ⁽⁴⁾ | | 803,815 | | I | See footnote ⁽²⁾ | | |
| 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) | tive Conversion Date Execution Date, Tr cy or Exercise (Month/Day/Year) if any Co | | | | Transa | ransaction ode (Instr. | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | Exerc tion Da /Day/\ | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) | | De Se (In: | Price of erivative ecurity estr. 5) | 9. Number derivative Securities Beneficiall Owned Following Reported Transactio (Instr. 4) | у | Ownership Form: Direct (D) or Indirect (I) (Instr. 4 | Beneficial Ownership (Instr. 4) | | |
| | | | | Code | | v | (A) | (D) | Date Exercisable | | Expiration Date | Amount or Number of Title Shares | | | | | | | | | |

Explanation of Responses:

- 1. The price reported for this transaction is the weighted average price of multiple trades at prices ranging from \$11.38 to \$11.56. FMR LLC hereby undertakes to provide upon request by the Commission staff, the issuer, or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- 2. By F-Prime Capital Partners Healthcare Fund III LP, Impresa Fund III LIP, Impresa Fund III LP, Impresa Fund III Partners Healthcare Advisors Fund III LP (FPCPHA). FPCPHA and Impresa Fund III Limited Partnership are each solely managed by Impresa Management LLC, their general partner and investment manager. Impresa Management LLC is owned, directly or indirectly, by various shareholders and employees of FMR LLC, including certain members of the Johnson family. F-Prime Inc. is a wholly-owned subsidiary of FMR LLC
- 3. The price reported for this transaction is the weighted average price of multiple trades at prices ranging from \$11.41 to \$11.53. FMR LLC hereby undertakes to provide upon request by the Commission staff, the issuer, or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- 4. The price reported for this transaction is the weighted average price of multiple trades at prices ranging from \$11.54 to \$11.60. FMR LLC hereby undertakes to provide upon request by the Commission staff, the issuer, or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.

Remark 1: Abigail P. Johnson is a Director, the Vice Chairman, the Chief Executive Officer and the President of FMR LLC. Members of the Johnson family, including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. The address of Abigail P. Johnson is c/o FMR LLC, 245 Summer Street, Boston, MA 02110. Remark 2: FMR Co., Inc. (FMRC), an indirect wholly-owned subsidiary of FMR LLC and an investment adviser registered under the Investment Advisers Act of 1940, and Fidelity Institutional Asset Management Trust Company (FIAMTC), an indirect wholly-owned subsidiary of FMR LLC and a bank as defined in Section 3(a)(6) of the Securities Exchange Act of 1934 (Exchange Act), are the beneficial owners of Common Stock of REGENXBIO Inc. as a result of acting as investment adviser to various client funds and accounts. FMR LLC and Abigail P. Johnson have no pecuniary interest in the Common Stock beneficially owned by FMRC and FIAMTC. Remark 3: The filing of this statement shall not be deemed to be an admission that, for purposes of Section 16 of the Securities Exchange Act of 1934 or otherwise, the undersigned are the beneficial owners of any securities reported

> Marc R. Bryant, Duly authorized under Powers of Attorney, by and on behalf of FMR LLC and its direct and indirect subsidiaries, and Abigail P. Johnson

04/15/2016

** Signature of Reporting Person

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.