

bluebird bio, Inc.  
Form 4  
July 19, 2016

**FORM 4**

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

OMB APPROVAL

OMB Number: 3235-0287  
Expires: January 31, 2015  
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
Davidson David

(Last) (First) (Middle)

C/O BLUEBIRD BIO, INC., 150  
SECOND STREET

(Street)

CAMBRIDGE, MA 02141

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
bluebird bio, Inc. [BLUE]

3. Date of Earliest Transaction (Month/Day/Year)  
07/15/2016

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

\_\_\_ Director \_\_\_ 10% Owner  
 Officer (give title below) \_\_\_ Other (specify below)

Chief Medical Officer

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
\_\_\_ 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 Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|--|
|                                 |                                      |  | Code                           | V   | Amount  | (A) or (D)   | Price                                      |
| Common Stock                    | 07/15/2016                           |  | M                              |   | 1,000   | A  | \$ 2.09                                    |
| Common Stock                    | 07/15/2016                           |  | S <sup>(1)</sup>               |   | 1,000   | D  | \$ 45.0783                                 |
|                                 |                                      |  |                                |   |   |  | <sup>(2)</sup>                             |

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

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SEC 1474  
(9-02)

**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 Underlying Securities (Instr. 3 and 4) | 8. Amount or Number of Shares |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|-------------------------------|
| Stock Option (right to buy)                | \$ 2.09  | 07/15/2016                           |  | M                              | 1,000   | <sup>(3)</sup> 04/13/2022                                | Common Stock  | 1,000                         |

## Reporting Owners

| Reporting Owner Name / Address   | Relationships |           |                       |       |
|--|---------------|-----------|-----------------------|-------|
|  | Director      | 10% Owner | Officer               | Other |
| Davidson David<br>C/O BLUEBIRD BIO, INC.<br>150 SECOND STREET<br>CAMBRIDGE, MA 02141 |               |           | Chief Medical Officer |       |

## Signatures

/s/Jason F. Cole,  
Attorney-in-Fact

07/19/2016

\*\*Signature of Reporting Person

Date

## Explanation of Responses:

\* 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).

(1) The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on January 14, 2015.

(2) The range of prices for the transaction reported on this line was \$44.90 to \$45.38. The average weighted price was \$45.0783. The reporting person will provide, upon request by the SEC, the issuer or a security holder of the issuer, full information regarding the number of shares sold at each separate price.

(3) This option vests over a four-year period, at a rate of twenty-five percent (25%) on February 13, 2013 and in 36 equal monthly installments thereafter.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.