

FORM 4**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

OMB APPROVAL

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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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*			2. Issuer Name and Ticker or Trading Symbol		5. Relationship of Reporting Person(s) to Issuer (Check all applicable)	
<u>Bain Linda</u> (Last) (First) (Middle) <u>C/O BLUEBIRD BIO, INC.</u> <u>150 SECOND STREET</u> (Street) <u>CAMBRIDGE MA 02141</u> (City) (State) (Zip)			<u>bluebird bio, Inc. [BLUE]</u> 3. Date of Earliest Transaction (Month/Day/Year) <u>01/02/2014</u> 4. If Amendment, Date of Original Filed (Month/Day/Year)		Director 10% Owner X Officer (give title below) Other (specify below) <u>VP, Fin. & Business Operations</u> 6. 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-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			
Common Stock	01/02/2014		M		3,000	A	\$2.09	3,000	D	
Common Stock	01/02/2014		S ⁽¹⁾		3,000	D	\$20.83 ⁽²⁾	0	D	
Common Stock	01/03/2014		M		2,000	A	\$2.09	2,000	D	
Common Stock	01/03/2014		S ⁽¹⁾		2,000	D	\$20.99 ⁽³⁾	0	D	

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		Date Exercisable	Expiration Date					
Stock Option (right to buy)	\$2.09	01/02/2014		M		3,000	(4)	10/25/2021	Common Stock	3,000	\$0.00	60,516	D
Stock Option (right to buy)	\$2.09	01/03/2014		M		2,000	(4)	10/25/2021	Common Stock	2,000	\$0.00	58,516	D

Explanation of Responses:

- The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on October 15, 2013.
- The range of prices for the transaction reported on this line was \$20.22 to \$21.40. The average weighted price was \$20.825. 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.
- The range of prices for the transaction reported on this line was \$20.83 to \$21.26. The average weighted price was \$20.9873. 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.
- This option vests over a four-year period, at a rate of twenty-five percent (25%) on October 19, 2012 and in 36 equal monthly installments thereafter.

Remarks:

/s/ Linda C. Bain

01/03/2014

** 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.

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