

bluebird bio, Inc.  
Form 3  
June 18, 2013

**FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

OMB APPROVAL

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**INITIAL STATEMENT OF 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 *		2. Date of Event Requiring Statement	3. Issuer Name and Ticker or Trading Symbol	
GILLIS STEVEN		(Month/Day/Year)	bluebird bio, Inc. [BLUE]	
(Last)	(First)	(Middle)	06/18/2013	
8725 WEST HIGGINS ROAD, SUITE 290			4. Relationship of Reporting Person(s) to Issuer	5. If Amendment, Date Original Filed(Month/Day/Year)
(Street)			(Check all applicable)	
CHICAGO, IL 60631			<input checked="" type="checkbox"/> Director	6. Individual or Joint/Group Filing(Check Applicable Line)
(City)	(State)	(Zip)	<input type="checkbox"/> 10% Owner	<input checked="" type="checkbox"/> Form filed by One Reporting Person
			<input type="checkbox"/> Officer	<input type="checkbox"/> Form filed by More than One Reporting Person
			(give title below)	(specify below)

**Table I - Non-Derivative Securities Beneficially Owned**

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
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Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1473 (7-02)

**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 control number.**

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

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: Direct (D) or Indirect (I)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares	

(Instr. 5)

Series C Convertible Preferred Stock	Â <u>(1)</u>	Â <u>(1)</u>	Common Stock	1,052,946	\$ <u>(1)</u>	I	See footnote <u>(2)</u> <u>(3)</u> <u>(4)</u>
Series D Convertible Preferred Stock	Â <u>(5)</u>	Â <u>(5)</u>	Common Stock	740,642	\$ <u>(5)</u>	I	See footnote <u>(2)</u> <u>(3)</u> <u>(4)</u>

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
GILLIS STEVEN 8725 WEST HIGGINS ROAD, SUITE 290 CHICAGO, IL 60631	Â X	Â	Â	Â

## Signatures

/s/ Linda Bain,  
Attorney-in-Fact

06/18/2013

\*\*Signature of Reporting Person

Date

## Explanation of Responses:

\* If the form is filed by more than one reporting person, *see* Instruction 5(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).

The Series C Convertible Preferred Stock is convertible into Common Stock on an 18.967-for-one basis into the number of shares of Common Stock as shown in column 3 at any time at the holder's election, and automatically upon the closing of the Issuer's initial public offering, and has no expiration date.

(2) Beneficial ownership consists of: 1,793,588 shares of Common Stock issuable upon conversion of shares of Series C Convertible Preferred Stock and Series D Convertible Preferred Stock held by ARCH Venture Fund VII, L.P. ("ARCH Fund VII").

(3) The sole general partner of ARCH Fund VII is ARCH Venture Partners VII, L.P. ("ARCH Partners VII"), which may be deemed to be the beneficial owner of the shares held by ARCH Fund VII. The sole general partner of ARCH Partners VII is ARCH Venture Partners VII, LLC ("ARCH VII LLC"), which may be deemed to be the beneficial owner of the shares held by ARCH Fund VII. ARCH Partners VII and ARCH VII LLC disclaim beneficial ownership of such shares, except to the extent of any pecuniary interest therein. The managing directors of ARCH VII LLC are Keith Crandell, Clinton Bybee and Robert Nelsen, and they may be deemed to beneficially own the shares held by ARCH Fund VII. Messrs. Crandell, Bybee and Nelsen disclaim beneficial ownership of such shares, except to the extent of any pecuniary interest therein.

(4) Director Steven Gillis owns an interest in ARCH Partners VII but does not have voting or investment control over the shares held by ARCH Fund VII and disclaims beneficial ownership of such shares, except to the extent of any pecuniary interest therein.

(5) The Series D Convertible Preferred Stock is convertible into Common Stock on an 18.967-for-one basis into the number of shares of Common Stock as shown in column 3 at any time at the holder's election, and automatically upon the closing of the Issuer's initial public offering, and has no expiration date.

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.