

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL	
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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* <u>Mulder Geert-Jan</u> (Last) (First) (Middle) <u>C/O CO?PERATIVE AAC LS U.A.</u> <u>PO BOX 5187</u> (Street) <u>NAARDEN P7 1410 AD</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>bluebird bio, Inc. [BLUE]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) <u>06/24/2013</u>	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	

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	06/24/2013		C		1,155,121 ⁽¹⁾	A	\$0.00	1,155,121	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)	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						Title
Series A-1 Convertible Preferred Stock	(3)	06/24/2013		C			2,643,906	(3)	(3)	Common Stock	139,395	(3)	0	I	See footnote ⁽²⁾
Series A-2 Convertible Preferred Stock	(3)	06/24/2013		C			6,281,095	(3)	(3)	Common Stock	331,158	(3)	0	I	See footnote ⁽²⁾
Series B Convertible Preferred Stock	(3)	06/24/2013		C			10,649,408	(3)	(3)	Common Stock	561,470	(3)	0	I	See footnote ⁽²⁾
Series C Convertible Preferred Stock	(3)	06/24/2013		C			1,331,416	(3)	(3)	Common Stock	70,196	(3)	0	I	See footnote ⁽²⁾
Series D Convertible Preferred Stock	(3)	06/24/2013		C			1,003,411	(3)	(3)	Common Stock	52,902	(3)	0	I	See footnote ⁽²⁾
Warrant to Purchase Series A-1 Stock (right to buy)	\$0.6619	06/24/2013		J ⁽⁴⁾			153,699	(5)	11/16/2015	Series A-1 Convertible Preferred Stock	153,699	\$0.00	0	I	See footnote ⁽²⁾
Warrant to Purchase Common (right to buy)	\$12.55	06/24/2013		J ⁽⁴⁾			14,934	(5)	11/16/2015	Common Stock	14,934	\$0.00	14,934	I	See footnote ⁽²⁾
Warrant to Purchase Series A-1 Stock (right to buy)	\$0.6619	06/24/2013		J ⁽⁴⁾			188,849	(5)	10/26/2016	Series A-1 Convertible Preferred Stock	188,849	\$0.00	0	I	See footnote ⁽²⁾
Warrant to Purchase Common (right to buy)	\$12.55	06/24/2013		J ⁽⁴⁾			9,956	(5)	10/26/2016	Common Stock	9,956	\$0.00	9,956	I	See footnote ⁽²⁾
Warrant to Purchase Series A-1 Stock (right to buy)	\$0.6619	06/24/2013		J ⁽⁴⁾			623,204	(5)	05/03/2017	Series A-1 Convertible Preferred Stock	623,204	\$0.00	0	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)	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	Title	Amount or Number of Shares				
Warrant to Purchase Common (right to buy)	\$12.55	06/24/2013		J ⁽⁴⁾		32,856		(5)	05/03/2017	Common Stock	32,856	\$0.00	32,856	I	See footnote ⁽²⁾
Warrant to Purchase Series A-1 Stock (right to buy)	\$0.6619	06/24/2013		J ⁽⁴⁾		141,637		(5)	08/28/2018	Series A-1 Convertible Preferred Stock	141,637	\$0.00	0	I	See footnote ⁽²⁾
Warrant to Purchase Common (right to buy)	\$12.55	06/24/2013		J ⁽⁴⁾		7,467		(5)	08/28/2018	Common Stock	7,467	\$0.00	7,467	I	See footnote ⁽²⁾
Warrant to Purchase Series A-1 Stock (right to buy)	\$0.6619	06/24/2013		J ⁽⁴⁾		141,637		(5)	12/18/2018	Series A-1 Convertible Preferred Stock	141,637	\$0.00	0	I	See footnote ⁽²⁾
Warrant to Purchase Common (right to buy)	\$12.55	06/24/2013		J ⁽⁴⁾		7,467		(5)	12/18/2018	Common Stock	7,467	\$0.00	7,467	I	See footnote ⁽²⁾
Warrant to Purchase Series A-1 Stock (right to buy)	\$0.6619	06/24/2013		J ⁽⁴⁾		277,608		(5)	04/15/2019	Series A-1 Convertible Preferred Stock	277,608	\$0.00	0	I	See footnote ⁽²⁾
Warrant to Purchase Common (right to buy)	\$12.55	06/24/2013		J ⁽⁴⁾		14,634		(5)	04/15/2019	Common Stock	14,634	\$0.00	14,634	I	See footnote ⁽²⁾
Warrant to Purchase Series B Stock (right to buy)	\$0.3262	06/24/2013		J ⁽⁶⁾		172,440		(5)	04/15/2019	Series B Convertible Preferred Stock	172,440	\$0.00	0	I	See footnote ⁽²⁾
Warrant to Purchase Common (right to buy)	\$6.19	06/24/2013		J ⁽⁶⁾		9,091		(5)	04/15/2019	Common Stock	9,091	\$0.00	9,091	I	See footnote ⁽²⁾

Explanation of Responses:

1. Represents the total number of shares received upon conversion of shares of the Issuer's Series A-1 Convertible Preferred Stock (the "Series A-1 Shares"), Series A-2 Convertible Preferred Stock (the "Series A-2 Shares"), Series B Convertible Preferred Stock (the "Series B Shares"), Series C Convertible Preferred Stock (the "Series C Shares") and Series D Convertible Preferred Stock (the "Series D Shares" and together with the Series A-1 Shares, the Series A-2 Shares, the Series B Shares and the Series C Shares, collectively, the "Preferred Shares").
2. The securities are held directly by Cooperative AAC LS U.A. ("Cooperative"). The Reporting Person is a director of Cooperative and disclaims beneficial ownership of all shares held by the foregoing entity except to the extent of his pecuniary interest therein.
3. Effective upon the closing of the Issuer's initial public offering of its Common Stock, each Preferred Share automatically converted at a ratio of 18.967-to-one into the number of shares of Common Stock shown in column 7. The Preferred Shares had no expiration date.
4. Upon completion of the Issuer's initial public offering, the warrant to purchase shares of Series A-1 Preferred Stock automatically converted on an 18.967-for-one basis into a warrant to purchase shares of Common Stock. Disposition of the Warrant to Purchase Series A-1 Preferred Stock and acquisition of the Warrant to Purchase Common Stock is listed solely for the purpose of reporting such conversion of the shares underlying the security.
5. This warrant is immediately exercisable.
6. Upon completion of the Issuer's initial public offering, the warrant to purchase shares of Series B Preferred Stock automatically converted on an 18.967-for-one basis into a warrant to purchase shares of Common Stock. Disposition of the Warrant to Purchase Series B Preferred Stock and acquisition of the Warrant to Purchase Common Stock is listed solely for the purpose of reporting such conversion of the shares underlying the security.

Remarks:

/s/ Linda C. Bain, Attorney-in-Fact 06/26/2013

** 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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