UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): November 14, 2013

bluebird bio, Inc.

(Exact name of registrant as specified in its charter)

DELAWARE (State or other jurisdiction of incorporation) 001-35966 (Commission File Number) 13-3680878 (I.R.S. Employer Identification No.)

840 Memorial Drive, 4th Floor Cambridge, MA (Address of principal executive offices)

02139 (Zip Code)

Registrant's telephone number, including area code (617) 491-5601

Not Applicable (Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

D Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition

On November 14, 2013, bluebird bio, Inc. announced its financial results for the quarter ended September 30, 2013. A copy of the press release is being furnished as Exhibit 99.1 to this Report on Form 8-K.

The information in this Report on Form 8-K and Exhibit 99.1 attached hereto is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press release issued by bluebird bio, Inc. on November 14, 2013, furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: November 14, 2013

bluebird bio, Inc.

By: /s/ Linda C. Bain

Linda C. Bain Vice President, Finance and Business Operations, Principal Accounting Officer and Treasurer

EXHIBIT INDEX

Exhibit No.Description99.1Press release issued by bluebird bio, Inc. on November 14, 2013, furnished herewith.



NEWS RELEASE

bluebird bio Reports Fiscal Third Quarter 2013 Financial Results

CAMBRIDGE, MA, November 14, 2013 – bluebird bio, Inc. (Nasdaq: BLUE), a clinical-stage company committed to developing potentially transformative gene therapies for severe genetic and orphan diseases, today reported financial results and operational highlights for the quarter ended September 30, 2013.

Financial Results

Revenues were \$6.4 million during the quarter ended September 30, 2013 compared to \$0.1 million for the quarter ended September 30, 2012 and include amounts allocated to research and development services from the Celgene collaboration.

Net cash provided by operating activities during the nine months ended September 30, 2013 was \$48.9 million. bluebird bio held \$216.8 million in cash and cash equivalents as of September 30, 2013.

Total operating expenses for the quarter ended September 30, 2013 were \$12.5 million as compared to \$5.1 million for the same period in 2012.

bluebird bio reported a net loss of \$6.1 million, or \$0.26 per share, for the quarter ended September 30, 2013, as compared to net income applicable to common stockholders of \$0.6 million, or \$1.14 per share, for the quarter ended September 30, 2012.

Recent Business Highlights:

- In October bluebird bio announced the first patient was transplanted in the Starbeam (ALD-102) study for childhood cerebral adrenoleukodystrophy
- In October bluebird bio joined the Russell 2000 Index

"bluebird continues to make solid progress on multiple fronts," stated Nick Leschly, chief bluebird. "In October, we announced that the first patient had been transplanted in the Starbeam study for CCALD, an important step in advancing bluebird's lentiviral gene therapy platform. We look forward to announcing the first patient treated in our LentiGlobin studies for the treatment of beta-thalassemia in the months ahead."

Calendar Year 2013 Anticipated Milestones:

- Announce the first patient transplanted with LentiGlobin for beta thalassemia major
- Attend the Deutsche Bank BioFest conference on December 2 nd, 2013

About bluebird bio, Inc.

bluebird bio is a clinical-stage company committed to developing potentially transformative gene therapies for severe genetic and orphan diseases. bluebird bio has

two clinical-stage programs in development. The most advanced product candidate, Lenti-D, is in a recently-initiated phase 2/3 study for the treatment of childhood cerebral adrenoleukodystrophy (CCALD), a rare, hereditary neurological disorder affecting young boys. The next most advanced product candidate, LentiGlobin, is currently in a phase 1/2 study in France for the treatment of beta-thalassemia major and severe sickle cell disease. A second phase 1/2 study with LentiGlobin in the United States has been initiated for the treatment of beta-thalassemia major.

bluebird bio also has an early-stage chimeric antigen receptor-modified T cell (CAR-T) program for oncology in partnership with Celgene Corporation.

bluebird bio has operations in Cambridge, Massachusetts and Paris, France. For more information, please visit www.bluebirdbio.com.

Forward-Looking Statements

This release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding the advancement of the Company's clinical studies and the timing of data announcement. Any forward-looking statements in this press release are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to, the risk of cessation or delay of any of the ongoing or planned clinical studies and/or our development of our product candidates, the risk of a delay in the enrollment of patients in the Company's clinical studies, the risk that the results of previously conducted studies involving similar product candidates will not be repeated or observed in ongoing or future studies involving current product candidates, the risk that our collaboration with Celgene will not continue or will not be successful, and the risk that any one or more of our product candidates will not be successfully developed and commercialized. For a discussion of other risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in our quarterly report on Form 10-Q, as well as discussions of potential risks, uncertainties, and other important factors in our subsequent filings with the Securities and Exchange Commission. All information in this press release is as of the date of the release, and bluebird bio undertakes no duty to update this information unless required by law.

Investor Relations: Richard E. T. Smith, Ph.D.

bluebird bio, Inc (617) 588-3321

Media Contact:

Dan Budwick Pure Communications, Inc. (973) 271-6085

bluebird bio, Inc. Condensed Consolidated Statements of Operations and Comprehensive Loss (unaudited)

(in thousands, except per share data)

	Three months ended September 30,		Nine months ended September 30,	
	2013	2012	2013	2012
Revenue:				
Collaboration revenue	\$ 6,251	\$ —	\$ 13,542	\$ —
Research and license fees	134	85	304	255
Total revenue	6,385	85	13,846	255
Operating expenses:				
Research and development	8,706	3,501	21,237	10,713
General and administrative	3,836	1,608	9,441	4,302
Total operating expenses	12,542	5,109	30,678	15,015
Loss from operations	(6,157)	(5,024)	(16,832)	(14,760)
Other income (expense), net:				
Interest income	11	1	21	3
Foreign currency gains	33	4	11	18
Re-measurement of warrants		(22)	(440)	67
Other income (expense), net	44	(17)	(408)	88
Net loss	\$ (6,113)	\$(5,041)	\$ (17,240)	\$(14,672)
Net (loss) income applicable to common stockholders — basic	\$ (6,113)	\$ 315	\$ (17,240)	\$ 111
Net (loss) income applicable to common stockholders — diluted	\$ (6,113)	\$ 632	\$ (17,240)	\$ 243
Net (loss) income per share applicable to common stockholders:				
Basic	\$ (0.26)	\$ 1.15	\$ (1.96)	\$ 0.44
Diluted	\$ (0.26)	\$ 1.14	\$ (1.96)	\$ 0.44
Weighted-average number of common shares used in computing net (loss) income per share applicable to				
common stockholders:	22 (22	075	0.706	250
Basic	23,623	275	8,786	250
Diluted	23,623	554	8,786	551

bluebird bio, Inc. Condensed Consolidated Balance Sheets (unaudited) (in thousands, except per share data)

	September 30, 2013	December 31, 2012
Assets		
Current assets:		
Cash and cash equivalents	\$ 216,791	\$ 67,011
Prepaid expenses and other current assets	4,676	773
Total current assets	221,467	67,784
Property and equipment, net	5,392	1,288
Restricted cash	1,403	250
Total assets	\$ 228,262	\$ 69,322
Liabilities, convertible preferred stock, and stockholders' equity (deficit)		
Current liabilities:		
Accounts payable	\$ 1,144	\$ 2,173
Accrued expenses and other current liabilities	5,006	2,115
Deferred revenue, current portion	25,340	340
Total current liabilities	31,490	4,628
Warrant liability	—	215
Deferred rent, net of current portion	2,529	46
Deferred revenue, net of current portion	36,543	340
Total liabilities	70,562	5,229
Convertible preferred stock	_	119,840
Total stockholders' equity (deficit)	157,700	(55,747)
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	\$ 228,262	\$ 69,322