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 12, 2014

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.)

150 Second Street, Cambridge, MA (Address of principal executive offices) 02141 (Zip Code)

Registrant's telephone number, including area code (339) 499-9300

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:

UWritten 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))

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 12, 2014, bluebird bio, Inc. announced its financial results for the three and nine months ended September 30, 2014. 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. 99.1 Description Press release issued by bluebird bio, Inc. on November 12, 2014, 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.

bluebird bio, Inc.

Date: November 12, 2014

By: /s/ Jeffrey T. Walsh

Jeffrey T. Walsh Chief Operating Officer and Principal Financial Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press release issued by bluebird bio, Inc. on November 12, 2014, furnished herewith.



NEWS RELEASE

bluebird bio Reports Fiscal Third Quarter 2014 Financial Results

CAMBRIDGE, MA, November 12, 2014 – 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, 2014.

"The third quarter of 2014 was another productive quarter for bluebird bio," said Nick Leschly, chief bluebird. "We continue to make steady progress across all our programs and we were excited to announce the treatment of our first subject with sickle cell disease using LentiGlobin BB305. Later this quarter we plan to present additional data from our ongoing beta-thalassemia clinical trials at the ASH meeting, which continue to demonstrate the potential of our lentiviral gene therapy platform. Our balance sheet remains strong, allowing us to continue to execute on our goals heading into 2015."

Third Quarter 2014 and Recent Business Highlights:

-- Transplanted our first subject with sickle cell disease using our LentiGlobin BB305 product candidate in the HGB-205 study

-- James M. DeTore joined bluebird bio as Chief Financial Officer and Treasurer

-- Two presentations accepted at the 56th Annual Meeting of the American Society of Hematology (ASH), a Northstar study oral presentation (#549) and an HGB-205 study poster (#4797)

- Two subjects with beta-thalassemia major and enrolled in the HGB-205 study remain transfusion independent at days 180 and 90 post-transplant

- One subject in the Northstar Study observed monthly increases in beta-T87Q-globin levels following infusion out to month three

- We plan to provide clinical data on at least three subjects enrolled in the Northstar Study

-- United States patent entitled "Gene Therapy Vectors for ALD and AMN" issued (US Pat. No. 8,858,928) covering bluebird bio's Lenti-D product candidate

Anticipated 2014 Milestones:

-- Present further clinical results in beta-thalassemia major from our HGB-205 and Northstar Studies at ASH

Financial Results:

bluebird bio held \$263.8 million in cash, cash equivalents and marketable securities as of September 30, 2014.

Total revenue was \$6.4 million during the three months ended September 30, 2014, compared to \$6.4 million for the three months ended September 30, 2013. Total revenue is primarily comprised of collaborative revenue from bluebird bio's collaboration with Celgene Corporation.

Total operating expenses for the three months ended September 30, 2014 were \$23.4 million as compared to \$12.5 million for the three months ended September 30, 2013.

bluebird bio reported a net loss of \$17.0 million, or \$0.61 per share, for the three months ended September 30, 2014, as compared to net loss of \$6.1 million, or \$0.26 per share, for the three months ended September 30, 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, the Starbeam 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 two phase 1/2 studies, one in the US (the Northstar Study) and one in France (HGB-205), for the treatment of beta-thalassemia major. The phase 1/2 HGB-205 study also allows for and has treated a patient(s) with sickle cell disease, and bluebird bio has initiated a separate U.S. sickle cell disease trial (HGB-206).

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

bluebird bio has operations in Cambridge, Massachusetts, Seattle, Washington, and Paris, France. For more information, please visit <u>www.bluebirdbio.com</u>.

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 Company's financial condition and results of operations and the advancement of, and anticipated milestones related to the Company's product candidates and clinical studies, and anticipated milestones for 2014. Any forward-looking statements 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 most recent annual report on Form 10-K, 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.

Availability of other information about bluebird bio

Investors and others should note that we communicate with our investors and the public using our company website (<u>www.bluebirdbio.com</u>), our investor relations website (<u>http://www.bluebirdbio.com/investor-splash.html</u>), including but not limited to investor presentations and FAQs, Securities and Exchange Commission filings, press releases, public conference calls and webcasts. You can also connect with us on Twitter @bluebirdbio.<u>LinkedIn or our YouTube</u> channel. The information that we post on these channels and websites could be deemed to be material information. As a result, we encourage investors, the media, and others interested in bluebird bio to review the information that we post on these channels and may include other social media channels may be updated from time to time on our investor relations website and may include other social media channels than the ones described above. The contents of our website or these channels, or any other website that may be accessed from our website or these channels, shall not be deemed incorporated by reference in any filing under the Securities Act of 1933.

Investor Relations:

Richard E. T. Smith, Ph.D. bluebird bio, Inc. (339) 499-9382

Media Contact:

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

bluebird bio, Inc.

Condensed Consolidated Statements of Operations Data (unaudited) (in thousands, except per share data)

	Three months ended September 30,			Nine months ended September 30,			
	 2014	201	3		2014		2013
Revenue:							
Collaboration revenue	\$ 6,250	\$	6,251	\$	18,750	\$	13,542
Research and license fees	 115		134		285		304
Total revenue	6,365		6,385		19,035		13,846
Operating expenses:							
Research and development	16,649		8,706		42,043		21,237
General and administrative	6,648		3,836		17,924		9,441
Change in fair value of contingent consideration	78		_		78		—
Total operating expenses	 23,375	1	2,542		60,045		30,678
Loss from operations	(17,010)	((6,157)		(41,010)		(16,832)
Other income (expense), net	(20)		44		48		(408)
Loss before income taxes	 (17,030)	((6,113)		(40,962)		(17,240)
Benefit from income taxes	 				11,797		
Net loss	\$ (17,030)	\$ ((6,113)	\$	(29,165)	\$	(17,240)
Net loss per share - basic and diluted:	\$ (0.61)	\$	(0.26)	\$	(1.14)	\$	(1.96)
Weighted-average number of common shares used in computing net loss per share - basic and diluted:	 28,115	2	3,623		25,593		8,786
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bluebird bio, Inc.

Condensed Consolidated Balance Sheets Data (unaudited) (in thousands, except par value amounts)

	S	September 30, 2014	December 31, 2013		
Assets					
Current assets:					
Cash and cash equivalents	\$	89,603	\$	206,279	
Marketable securities		125,771		—	
Deferred tax assets		3,106		693	
Prepaid expenses and other current assets		4,840		5,015	
Total current assets		223,320		211,987	
Marketable securities		48,446		—	
Property and equipment, net		14,978		10,920	
Intangible assets, net		29,159		_	
Goodwill		13,128			
Restricted cash and other non-current assets		1,162		1,483	
Total assets	\$	330,193	\$	224,390	
Liabilities and stockholders' equity					
Current liabilities:					
Accounts payable	\$	3,641	\$	4,359	
Accrued expenses and other current liabilities		9,677		5,175	
Deferred revenue, current portion		25,206		25,340	
Total current liabilities		38,524		34,874	
Deferred rent, net of current portion		8,724		6,740	
Deferred revenue, net of current portion		11,458		30,208	
Contingent consideration, net of current portion		6,166			
Deferred tax liabilities		3,106		693	
Other non-current liabilities		323		208	
Total liabilities		68,301		72,723	
Stockholders' equity:					
Common stock, \$0.01 par value, 125,000 shares authorized;					
28,702 and 23,940 shares issued and outstanding at September 30, 2014					
and December 31, 2013, respectively		287		239	
Additional paid-in capital		389,519		250,103	
Accumulated other comprehensive loss		(74)		_	
Accumulated deficit		(127,840)		(98,675)	
Total stockholders' equity		261,892		151,667	
Total liabilities and stockholders' equity	\$	330,193	\$	224,390	