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): May 21, 2014

bluebird bio, Inc.
(Exact name of registrant as specified in its charter)

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

150 Second Street
Cambridge, MA **02141**
(Address of principal executive offices) **(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:

☐ 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))

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

Item 8.01 Other Events

On May 21, 2014, bluebird bio, Inc. ("bluebird") issued a press release announcing its abstract and oral presentation at the 19 th European Hematology Association Congress in Milan, Italy on June 14th. The full text of bluebird's press release regarding the announcement is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press release issued by bluebird bio, Inc. on May 21, 2014.

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: May 21, 2014

bluebird bio, Inc.

By: /s/ Jason F. Cole
Jason Cole
Senior Vice President, General Counsel

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press release issued by bluebird bio, Inc. on May 21, 2014.

Exhibit 99.1

NEWS RELEASE

bluebird bio to present initial clinical data from its HGB-205 Study in beta-thalassemia major patients at the 19 th European Hematology Association Congress

CAMBRIDGE, MA, May 21, 2014 – bluebird bio, Inc. (Nasdaq: BLUE), a clinical-stage company committed to developing potentially transformative gene therapies for severe genetic and orphan diseases, today announced that bluebird bio and its clinical investigator plan to provide an oral presentation on the HGB-205 Study in beta-thalassemia major patients at the 19 th Annual Congress of the European Hematology Association (EHA) in Milan, Italy from June 12-15, 2014.

Abstract Title: Outcomes of gene therapy for beta-thalassemia major via transplantation of autologous hematopoietic stem cells transduced *ex vivo* with a lentiviral beta globin vector.

Lead Author: Marina Cavazzana, M.D.

Session Title: Simultaneous Sessions & EHA Advocacy Sessions

Presentation Date/Time: Saturday, June 14 from 4:15 pm CET to 4:30 pm CET (10:15 am EDT to 10:30 am EDT)

Summary of Abstract Data and Clinical Data to be Presented at EHA:

- Clinical data will be presented on two subjects with beta-thalassemia major (#1201 and #1202) transplanted with new lentiviral vector BB305 in the HGB-205 Study
- Vector copy number in the drug product for subjects 1201 and 1202 are 1.5 and 2.1 respectively; higher than the drug product vector copy numbers reported in the prior LG001 Study (0.3-0.6), which used the older lentiviral vector HPV569
- A detailed update on the clinical data and transfusion status of subjects 1201 and 1202 will be provided as part of the EHA presentation

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 enrollment of patient(s) with sickle cell disease, and bluebird bio is planning 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 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, and anticipated milestones related to the Company's product candidates and clinical studies, and anticipated milestones for 2014. In addition it should be noted that the data expected to be announced later in 2014 are preliminary and interim in nature; the HGB-205 trial is not completed. These data may not be not be repeated or observed in ongoing or future studies involving our LentiGlobin product candidate, including the HGB-205 trial or Northstar Study. 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 (www.bluebirdbio.com), our investor relations website (http://www.bluebirdbio.com/investor-splash.html), 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 or LinkedIn. 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, including our investor relations website, on a regular basis. This list of 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.

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