
**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): April 1, 2015

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:

- 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))
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Item 1.01 Entry into a Material Definitive Agreement

On April 1, 2015, bluebird bio, Inc. (“bluebird”) and the Institut Pasteur (“Pasteur”) entered into amendment No. 4 (the “Amendment”) to the existing License Agreement between bluebird and Pasteur, dated as of September 13, 2011, as amended on April 27, 2012, October 16, 2012 and September 10, 2013 (the “License Agreement”). Under the terms of the existing License Agreement, bluebird had licensed certain patents and patent applications relating to the use of DNA sequences, lentiviral vectors and recombinant cells in the field of *ex vivo* gene therapy and chimeric antigen receptor T cells in a range of indications, excluding vaccination. The license is exclusive for products containing human and non-human lentiviral vectors. Under the terms of the Amendment, in consideration of the payment of €3.0 million and additional consideration described below, bluebird licensed additional patents and patent applications from Pasteur, and expanded the field of the license to include *ex vivo* gene therapy for the treatment and prevention of all human disorders, including use of chimeric antigen receptor T cells, excluding vaccination.

Upon commercialization of our products covered by the in-licensed intellectual property, which we expect would include our Lenti-D and LentiGlobin product candidates, we will be obligated to pay Pasteur a percentage of net sales as a royalty. This royalty varies depending on the indication of the product but in any event is in the low single digits. In addition, starting in 2016 we must make an increased annual maintenance payment which is creditable against royalty payments on a year-by-year basis.

Under the License Agreement, as amended by the Amendment, we have the right to grant sublicenses to third parties. For the first sublicense including a product targeting ALD (including CCALD and AMN), or β -hemoglobinopathies (including β -thalassemia, and SCD), we must pay Pasteur an additional payment of €3.0 million. If we receive income (cash or non-cash) in connection with sublicenses for products targeting indications other than ALD (including CCALD and AMN), or β -hemoglobinopathies (including β -thalassemia and SCD), we must pay Pasteur a percentage of such sublicense income in the low single digits if the sublicense also includes licenses to intellectual property controlled by bluebird, and a percentage of sublicense income in the mid-range double digits if the sublicense does not include licenses to intellectual property controlled by bluebird.

The foregoing description of the Amendment does not purport to be a complete statement of the parties’ rights under the Amendment and the License Agreement and is qualified in its entirety by reference to the full text of the Amendment, a copy of which will be filed as an Exhibit to bluebird’s quarterly report on Form 10-Q for the quarter ended March 31, 2015.

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: April 2, 2015

bluebird bio, Inc.

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