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): June 22, 2015

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 June 22, 2015, bluebird bio, Inc. ("bluebird"), and Kite Pharma, Inc. ("Kite") issued a joint press release announcing that they have entered into a collaboration agreement to advance second generation T cell receptor product candidates to treat certain cancers associated with human papillomavirus. The full text of the 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. and Kite Pharma, Inc. on June 22, 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: June 22, 2015

bluebird bio, Inc.

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

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press release issued by bluebird bio, Inc. and Kite Pharma, Inc. on June 22, 2015

EXHIBIT 99.1

KITE PHARMA AND BLUEBIRD BIO ANNOUNCE STRATEGIC COLLABORATION TO ADVANCE SECOND GENERATION TCR CELL THERAPY PRODUCTS TO TREAT HPV-ASSOCIATED CANCERS

Collaboration Combines bluebird bio's Gene Editing and Lentiviral Gene Delivery Technologies and Kite's TCR Capabilities and Exclusive Rights to a TCR Directed Against the HPV-16 E6 Oncoprotein

Exclusive Worldwide Co-Development and Co-Commercialization Collaboration

SANTA MONICA, Calif., and CAMBRIDGE, Mass. (June 22, 2015) – Kite Pharma, Inc. (NASDAQ:KITE) and bluebird bio, Inc. (NASDAQ:BLUE) today announced that they have entered into a collaboration agreement to co-develop and co-commercialize second generation T cell receptor (TCR) product candidates directed against the human papillomavirus type 16 E6 (HPV-16 E6) oncoprotein incorporating gene editing and lentiviral technologies. bluebird bio has a platform comprised of lentiviral gene delivery and gene editing capabilities, with a focus on rare diseases and cancer immunotherapies. Kite has a broad existing pipeline of TCR product candidates and will continue to develop its existing and wholly-owned TCR programs directed against high-risk HPV, which are unaffected by this collaboration, including HPV-16 E6 TCR, currently in a Phase I study, and HPV-16 E7 TCR. The collaboration brings together the powerful technologies and capabilities of these two leading immunotherapy companies.

Under the terms of the agreement, both companies will jointly develop and commercialize second generation TCR product candidates directed against the HPV-16 E6 oncoprotein, incorporating gene editing to efficiently modify certain genes to enhance T cell function. In addition, the companies will explore using lentiviral vectors to optimize delivery of HPV-16 E6 TCRs into patient T cells.

Kite will lead the program in the U.S., and bluebird bio will have the option to lead the program in the European Union. Both companies will share overall costs, including research and development and sales and marketing expenses, and profits will be equally split between the companies. Additionally, Kite will have a co-promotion option in the European Union, and bluebird will have a co-promotion option in the U.S.

“As we continue to build a differentiated immuno-oncology portfolio, we are delighted to partner with Kite in a collaboration that combines their leadership in T cell-based immunotherapies with our expertise in gene editing and industry-leading lentiviral vector platform,” said Nick Leschly, chief bluebird. “We believe partnering with Kite will allow us to deliver game-changing T cell therapies to patients through great science and great capabilities.”

“This partnership is a natural fit with our mission to develop and deliver novel immunotherapies for cancer patients, and collaborating globally with bluebird bio will allow us to benefit from the strengths and capabilities of both companies in immuno-oncology. Through this collaboration, we will have access to our partner’s strong science expertise and enabling technologies to further enhance one of our key TCR programs and to evaluate gene editing technology in the context of T cell therapy,” said Arie Belldegrun, M.D., FACS, Kite’s Chairman, President and Chief Executive Officer.

Kite will discuss further details of this collaboration at its upcoming Investor Day event on June 23rd that will be webcast at www.kitepharma.com.

About HPV-Associated Cancers
Human papillomavirus (HPV) is the most common viral infection of the reproductive tract, with two viral strains, HPV type 16 and type 18, believed to cause 70% of cervical cancers and precancerous cervical lesions, as well as other urogenital cancers.[1] There were over 500,000 new cases and about 270,000 deaths attributable to cervical cancer worldwide in 2012.[2]

Additionally, HPV infection has become established as an etiologic risk factor for oropharyngeal head and neck cancers. The incidence of HPV-associated oropharyngeal cancers has been increasing for at least the past decade, and recent studies show that about 70 percent of oropharyngeal cancers may be linked to HPV[3,4]. According to the CDC, there are over 12,000 new cases of oropharyngeal cancers in the US, of which an estimated 7,500 new cases are attributable to HPV-16.[4]

About Kite Pharma, Inc.
Kite Pharma, Inc., is a clinical-stage biopharmaceutical company engaged in the development of novel cancer immunotherapy products, with a primary focus on eACT™ designed to restore the immune system's ability to recognize and eradicate tumors. Kite is based in Santa Monica, CA. For more information on Kite Pharma, please visit www.kitepharma.com.

About bluebird bio, Inc.
With its lentiviral-based gene therapy and gene editing capabilities, bluebird bio has built an integrated product platform with broad potential application to severe genetic diseases and T cell-based immunotherapy. bluebird bio's clinical programs include Lenti-D™, currently in a Phase 2/3 study, called the Starbeam Study, for the treatment of childhood cerebral adrenoleukodystrophy, and LentiGlobin®, currently in three clinical studies: a global Phase 1/2 study, called the Northstar Study, for the treatment of beta-thalassemia major; a single-center Phase 1/2 study in France (HGB-205) for the treatment of beta-thalassemia major or severe sickle cell disease; and a separate U.S. Phase 1 study for the treatment of sickle cell disease (HGB-206). bluebird bio also has ongoing preclinical CAR T immuno-oncology programs, as well as discovery research programs utilizing megaTALs/homing endonuclease gene editing technologies.
bluebird bio has operations in Cambridge, Massachusetts, Seattle, Washington, and Paris, France. For more information, please visit www.bluebirdbio.com.

Kite Pharma, Inc. Forward-Looking Statements

This press release contains forward-looking statements for purposes of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The press release may, in some cases, use terms such as "predicts," "believes," "potential," "proposed," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements include statements regarding intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things: the success of the collaboration between Kite and bluebird; the ability to research and develop existing and new therapeutic candidates, including TCR products directed against HPV antigens; and the expectations regarding the clinical effectiveness and safety of T cell therapies. Various factors may cause differences between Kite's expectations and actual results as discussed in greater detail in Kite's filings with the Securities and Exchange Commission, including without limitation in its Form 10-Q for the quarter ended March 31, 2015. Any forward-looking statements that is made in this press release speak only as of the date of this press release. Kite assumes no obligation to update the forward-looking statements whether as a result of new information, future events or otherwise, after the date of this press release.

bluebird bio, Inc. 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 research, development and advancement of bluebird bio's immuno-oncology product candidates and research programs. 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 that bluebird bio's immuno-oncology research programs, including those shared with Kite will be unsuccessful and not identify any viable product candidates or will not be safe or effective in clinical trials, the risk of cessation or delay of any of the planned clinical studies and/or our development of our immuno-oncology product candidates, the risk of a delay in the enrollment of patients in bluebird’s clinical studies, the risk that our collaboration with Kite around HPV-16 E6 product candidates 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 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.

[1] World Health Organization, Human papillomavirus (HPV) and cervical cancer, Fact sheet N°380, accessed 6/10/15.
[2] GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012 (http://globocan.iarc.fr/Default.aspx), accessed 6/10/15.
[3] Human papillomavirus and rising oropharyngeal cancer incidence in the United States, Journal of Clinical Oncology, 2011: 29(32):4294-4301.
[4] CDC: How Many Cancers Are Linked with HPV Each Year? (http://www.cdc.gov/cancer/hpv/statistics/cases.htm), accessed 6/10/15.

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