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): October 1, 2015

REGENXBIO INC.
(Exact Name of Registrant as Specified in its Charter)

Delaware	**001-37553**	**47-1851754**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

9712 Medical Center Drive, Suite 100 **Rockville, Maryland** **(Address of principal executive offices)**	**20850** **(Zip Code)**

(240) 552-8181
(Registrant's telephone number, including area code)

N/A
(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 (see General Instruction A.2. below):

☐ 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 October 1, 2015, REGENXBIO Inc. (the Company) issued a press release announcing that the U.S. Food and Drug Administration (FDA) has granted Orphan Drug Designation to the Company's investigational gene therapy product candidate, RGX-111, for the treatment of mucopolysaccharidosis Type I (MPS I). MPS I is a rare neurodegenerative disease caused by deficiency of the a-l-iduronidase gene.

A copy of the Company's press release is filed as Exhibit 99.1 to this Current Report on Form 8-K and incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	REGENXBIO Inc. Press Release dated October 1, 2015

SIGNATURE

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.

REGENXBIO INC.

Date: October 1, 2015

By: /s/ Kenneth T. Mills
Kenneth T. Mills
President and Chief Executive Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	REGENXBIO Inc. Press Release dated October 1, 2015

FDA GRANTS ORPHAN DRUG DESIGNATION TO REGENXBIO'S RGX-111 GENE THERAPY FOR THE TREATMENT OF MUCOPOLYSACCHARIDOSIS TYPE I (MPS I)

ROCKVILLE, MD, October 1, 2015 – REGENXBIO Inc. (REGENXBIO) (Nasdaq: RGNX), a leading biotechnology company in gene therapy, today announced that the U.S. Food and Drug Administration (FDA) has granted Orphan Drug Designation to REGENXBIO's investigational gene therapy product candidate RGX-111 for the treatment of mucopolysaccharidosis Type I (MPS I).

"REGENXBIO is pleased to have received Orphan Drug Designation from the FDA for RGX-111," said Kenneth T. Mills, President and CEO of REGENXBIO. "MPS I is a severely debilitating disease and patients and their caregivers do not currently have adequate therapeutic options. We remain committed to our vision of developing gene therapies for patients with high unmet medical needs, including MPS I."

FDA Orphan Drug Designation is granted to investigational therapies addressing rare medical diseases or conditions that affect fewer than 200,000 people in the United States. Orphan drug status provides benefits to drug developers including assistance in the drug development process, tax credits for clinical costs, exemptions from certain FDA fees and seven years of marketing exclusivity.

MPS I is a rare neurodegenerative disease caused by deficiency of the a-l-iduronidase (IDUA) gene. Over 1,000 individuals with MPS I are estimated to be born each year worldwide. Symptoms include excessive accumulation of fluid in the brain, spinal cord compression and cognitive impairment. RGX-111 uses an AAV9 vector to deliver the IDUA gene to the central nervous system.

REGENXBIO intends to file an Investigational New Drug Application (IND) with the FDA in the first half of 2016 to support the initiation of a dose-escalation Phase I/II clinical trial of RGX-111 beginning in the first half of 2016. RGX-111 is not approved for sale in the United States or elsewhere.

About REGENXBIO

REGENXBIO is a leading biotechnology company focused on the development, commercialization and licensing of recombinant adeno-associated virus (AAV) gene therapy. REGENXBIO's NAV Technology Platform, a proprietary AAV gene delivery platform, consists of exclusive rights to more than 100 novel AAV vectors, including AAV7, AAV8, AAV9 and AAVrh10. REGENXBIO's mission is to transform the lives of patients suffering from severe diseases with significant unmet medical need by developing and commercializing *in vivo* gene therapy products based on REGENXBIO's NAV Technology Platform. REGENXBIO seeks to accomplish this mission through a combination of internal development efforts and third-party NAV Technology Platform licensees. REGENXBIO's NAV Technology Platform is currently being applied in the development of 23 product candidates for a variety of diseases, including five internally developed candidates and 18 partnered candidates developed by REGENXBIO's licensees.

Forward Looking Statements

This press release contains “forward-looking statements,” within the meaning of the Private Securities Litigation Reform Act of 1995, regarding, among other things, REGENXBIO’s research, development and regulatory plans for RGX-111 and other gene therapies. Such forward-looking statements are based on current expectations and involve inherent risks and uncertainties, including factors that could delay, divert or change any of them, and could cause actual results to differ materially from those projected in its forward-looking statements. Meaningful factors which could cause actual results to differ include, but are not limited to, the ability to obtain and maintain regulatory approval of REGENXBIO’s product candidates, and the labeling for any approved products; the scope, progress, expansion, and costs of developing and commercializing REGENXBIO’s product candidates; REGENXBIO’s ability to obtain and maintain intellectual property protection for our product candidates; REGENXBIO’s ability to establish and maintain development partnerships; REGENXBIO’s expectations regarding federal, state and foreign regulatory requirements; regulatory developments in the United States and foreign countries, as well as other factors discussed in the “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections of REGENXBIO’s Registration Statement on Form S-1 (File No. 333-206430), as amended, which is on file with the Securities and Exchange Commission (SEC), declared effective on September 16, 2015 and available on the SEC’s website at www.sec.gov. In addition to the risks described above and in REGENXBIO’s Registration Statement on Form S-1 and other filings with the SEC, other unknown or unpredictable factors also could affect REGENXBIO’s results. There can be no assurance that the actual results or developments anticipated by REGENXBIO will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, REGENXBIO. Therefore, no assurance can be given that the outcomes stated in such forward-looking statements and estimates will be achieved.

All forward-looking statements contained in this press release are expressly qualified by the cautionary statements contained or referred to herein. REGENXBIO cautions investors not to rely too heavily on the forward-looking statements REGENXBIO makes or that are made on its behalf. These forward-looking statements speak only as of the date of this press release (unless another date is indicated). REGENXBIO undertakes no obligation, and specifically declines any obligation, to publicly update or revise any such forward-looking statements, whether as a result of new information, future events or otherwise.

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