REGENXBIO Inc. 9600 Blackwell Road, Suite 210 Rockville, MD 20850

January 4, 2017

VIA EDGAR

Securities and Exchange Commission Division of Corporation Finance 100 F. Street, N.E. Washington, D.C. 20549 Attention: Mary Beth Breslin

Re: REGENXBIO Inc.

Registration Statement on Form S-3 (File No. 333-215146)

Dear Ms. Breslin:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, REGENXBIO Inc. (the "Company") hereby requests that the Securities and Exchange Commission (the "Commission") take appropriate action to make the above-referenced Registration Statement on Form S-3 effective at 5:00 p.m. Eastern Time on Friday, January 6, 2017 or as soon thereafter as practicable.

The Company hereby authorizes Albert Vanderlaan of Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP, counsel to the Company, to orally modify or withdraw this request for acceleration.

Please provide a copy of the Commission's order declaring the Registration Statement effective to Albert Vanderlaan at Gunderson Dettmer, One Marina Park Drive, Suite 900, Boston, MA 02210. If possible, please also send such order by email to the attention of Albert Vanderlaan at avanderlaan@gunder.com.

Thank you for your attention on this matter.

Very truly yours,

REGENXBIO Inc.

By: /s/ Kenneth T. Mills

Kenneth T. Mills President and Chief Executive Officer

cc: Patrick Christmas, REGENXBIO Inc.

Jay Hachigian, Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP Keith Scherer, Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP Albert Vanderlaan, Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP