FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

on, D.C. 20549 OMB APPROVAL

OMB Number: 3235-0287 Estimated average burden

X Sec

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b). STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

hours per response: 0.5 Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940 5. Relationship of Reporting Person(s) to Issuer 2. Issuer Name and Ticker or Trading Symbol 1. Name and Address of Reporting Person* REGENXBIO Inc. [RGNX] (Check all applicable) Flynn James E Director 10% Owner X Officer (give title Other (specify X 3. Date of Earliest Transaction (Month/Day/Year) below) below) (Last) (First) (Middle) 09/22/2015 Possible Member of 10% Group 780 THIRD AVENUE, 37TH FLOOR 6. Individual or Joint/Group Filing (Check Applicable Line) 4. If Amendment, Date of Original Filed (Month/Day/Year) (Street) **NEW YORK** 10017 NY Form filed by One Reporting Person Form filed by More than One Reporting (City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned											
Date (Month/Day/Year) if		2A. Deemed Execution Date, if any (Month/Day/Year)			4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
			Code	v	Amount	(A) or (D)	Price	Transaction(s) (Instr. 3 and 4)		(mstr. 4)	
Common Stock	09/22/2015		С		771,963	A	(1)	771,963	I	Through Deerfield Private Design III Fund, L.P. ⁽³⁾	
Common Stock	09/22/2015		С		397,079	A	(2)	1,169,042	I	Through Deerfield Private Design III Fund, L.P. ⁽³⁾	
Common Stock	09/22/2015		P		87,500	A	\$22	1,256,542	I	Through Deerfield Private Design III Fund, L.P. ⁽³⁾	
Common Stock	09/22/2015		P		38,500	A	\$22	38,500	I	Through Deerfield Partners, L.P. ⁽³⁾⁽⁴⁾	
Common Stock	09/22/2015		P		49,000	A	\$22	49,000	I	Through Deerfield International Master Fund, L.P. ⁽³⁾	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transa Code (8)		tion Derivative		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	v	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares		(Instr. 4)		
Series C Convertible Preferred Stock	(1)	09/22/2015		С			771,963	(1)	(1)	Common Stock	771,963	(1)	0	I	Through Deerfield Private Design Fund III, L.P.(3)(4)
Series D Convertible Preferred Stock	(2)	09/22/2015		С			397,079	(2)	(2)	Common Stock	397,079	(2)	0	I	Through Deerfield Private Design Fund III, L.P.(3)(4)

(Last)	(First)	(Middle)
• ,	NUE, 37TH FLOOR	(
(Street)		
NEW YORK	NY	10017
(City)	(State)	(Zip)
1. Name and Address <u>Deerfield Mg</u> r	s of Reporting Person* mt L.P.	
(Last)	(First)	(Middle)
780 THIRD AVE 37TH FLOOR	NUE	
J7 TH FLOOR		
(Street) NEW YORK	NY	10017
(City)	(State)	(Zip)
	s of Reporting Person*	
DEERFIELD	<u>MANAGEMENT</u>	<u>CO</u>
(Last)	(First)	(Middle)
780 THIRD AVE	NUE, 37TH FLOOR	
(Street)		
NEW YORK	NY	10017
(City)	(State)	(Zip)
1. Name and Address Deerfield Mgr	s of Reporting Person* nt III, L.P.	
(Last) 780 THIRD AVE	(First) NUE, 37TH FLOOR	(Middle)
(Street) NEW YORK	NY	10017
TOTAL TOTAL	IVI	10017
(City)	(State)	(Zip)
	s of Reporting Person* ate Design Fund II	<u>I, L.P.</u>
(Last) 780 THIRD AVE	(First) NUE, 37TH FLOOR	(Middle)
(Street)		
NEW YORK	NY	10017
(City)	(State)	(Zip)
	s of Reporting Person*	und, L.P.
(Last)	(First)	(Middle)
	NUE, 37TH FLOOR	(middic)
(Street)		10015
NEW YORK	NY	10017
(City)	(State)	(Zip)
	s of Reporting Person* PARTNERS, LP	

780 THIRD AVENUE 37TH FLOOR					
(Street) NEW YORK	NY	10017			
(City)	(State)	(Zip)			

Explanation of Responses:

- 1. Each share of Series C Convertible Preferred Stock automatically converted into one (1) share of Issuer's common stock upon the closing of the Issuer's initial public offering of common stock.
- 2. Each share of Series D Convertible Preferred Stock automatically converted into one (1) share of Issuer's common stock upon the closing of the Issuer's initial public offering of common stock.
- 3. This Form 4 is being filed by the undersigned as well as the entities listed on the Joint Filer Information Statement attached as an exhibit hereto (the "Reporting Persons"). Deerfield Mgmt III, L.P. is the general partner of Deerfield Private Design Fund III, L.P. ("Fund III"). Deerfield Mgmt, L.P. is the general partner of Deerfield Partners, L.P., and Deerfield International Master Fund, L.P. (collectively with Fund III, the "Funds"). Deerfield Management Company, L.P. is the investment manager of the Funds. James E. Flynn is the sole member of the general partner of each of Deerfield Mgmt, L.P., Deerfield Mgmt III, L.P. and Deerfield Management Company, L.P.

4. In accordance with Instruction 4 (b)(iv) to Form 4, the entire amount of the Issuer's securities held by the Funds is reported herein. For purposes of Section 16 of the Securities Exchange Act of 1934, as amended, each Reporting Person disclaims beneficial ownership of any such securities, except to the extent of his/its indirect pecuniary interest therein, if any, and this report shall not be deemed an admission that such Reporting Person is the beneficial owner of such securities for purposes of Section 16 or otherwise.

Remarks:

Jonathan Isler, Attorney-in-Fact: Power of Attorney, which is hereby incorporated by reference to Exhibit 24 to a Form 3 with regard to Avalanche Biotechnologies, Inc. filed with the Securities and Exchange Commission on July 30, 2014 by Deerfield Mgmt III, L.P., Deerfield Mgmt, L.P., Deerfield Management Company, L.P., Deerfield Special Situations Fund, L.P., Deerfield Special Situations Fund, L.P., Deerfield Private Design Fund III, L.P. and James E. Flynn.

<u>/s/ Jonathan Isler</u> <u>09/22/2015</u>

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

Joint Filer Information

Names: Deerfield Mgmt, L.P., Deerfield Management Company, L.P.,

Deerfield Partners, L.P., Deerfield International Master Fund, L.P. Deerfield Mgmt III, L.P., Deerfield Private Design Fund III, L.P.

Address: 780 Third Avenue, 37th Floor

New York, NY 10017

Designated Filer: James E. Flynn

Issuer and Ticker Symbol: REGENXBIO Inc. [RGNX]

Date of Earliest Transaction

Required To be Reported: September 22, 2015

The undersigned, Deerfield Mgmt, L.P., Deerfield Mgmt III, L.P., Deerfield Management Company, L.P., Deerfield Private Design Fund III, L.P. and Deerfield International Master Fund, L.P. are jointly filing the attached Statement of Changes in Beneficial Ownership on Form 4 with James E. Flynn with respect to the beneficial ownership of securities of REGENXBIO Inc.

Signatures:

DEERFIELD MGMT, L.P.

By: J.E. Flynn Capital, LLC, General Partner

By: /s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

DEERFIELD PARTNERS, L.P.

By: Deerfield Mgmt, L.P., General Partner By: J.E. Flynn Capital, LLC, General Partner

By: /s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

DEERFIELD MANAGEMENT COMPANY, L.P.

By: Flynn Management LLC, General Partner

By:/s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

DEERFIELD INTERNATIONAL MASTER FUND, L.P.

By: Deerfield Mgmt, L.P., General Partner By: J.E. Flynn Capital, LLC, General Partner

By: /s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

DEERFIELD MGMT III, L.P.

By: J.E. Flynn Capital III, LLC, General Partner

By: <u>/s/ Jonathan Isler</u>

Jonathan Isler, Attorney-In-Fact

DEERFIELD PRIVATE DESIGN FUND III, L.P.

By: Deerfield Mgmt III, L.P., General Partner

By: J.E. Flynn Capital III, LLC, General Partner

By: /s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact