FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL OMB Number: STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Estimated average burden hours per response: 0.5

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

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

Name and Address of Reporting Person* Westphal Christoph H						2. Issuer Name and Ticker or Trading Symbol Flex Pharma, Inc. [FLKS]									k all app	p of Report olicable) ctor		. ,	Issuer Owner
(Last) (First) (Middle) C/O FLEX PHARMA, INC. 800 BOYLSTON STREET						3. Date of Earliest Transaction (Month/Day/Year) 06/01/2015								X Officer (give title Other (specify below) President and CEO					
(Street) BOSTON MA 02199 (City) (State) (Zip)				- 4. If	4. If Amendment, Date of Original Filed (Month/Day/Year)								6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person						
		Tabl	e I - N	lon-Deriv	ative	Seci	uritie	s Ac	quire	ed, Di	isposed o	f, or B	enefici	ally	Owne	ed			
1. Title of Security (Instr. 3) 2. Transactio Date (Month/Day/N						Execution Date,			3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 ar			Benefic Owned		es ially Following	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)		7. Nature of Indirect Beneficial Ownership
									Code	v	Amount	(A) or (D)	Price		Reported Transaction(s) (Instr. 3 and 4)				(Instr. 4)
Common Stock 06/01/201					015	.5		P ⁽¹⁾		303	A	\$18.15	541 3,90)5,502	D			
Common Stock															2,69	97,264		I	By Longwood Fund II. L.P. ⁽²⁾
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)	ative Conversion Date Executity or Exercise (Month/Day/Year) if any			emed tion Date, n/Day/Year)	4. Transa Code (8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exer Expiration D (Month/Day/		ate	7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4)		Der	Price of ivative curity str. 5)	9. Number derivative Securities Beneficiall Owned Following Reported Transactio (Instr. 4)	у	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	Beneficial Ownership (Instr. 4)
					Code	v	(A)	(D)	Date Exerc	isable	Expiration Date	Title	Amount or Number of Shares						

Explanation of Responses:

2. Longwood Fund II GP, LLC is the ultimate General Partner of Longwood Fund II, L.P. Christoph Westphal, M.D., Ph.D., Richard Aldrich and Michelle Dipp, M.D., Ph.D. (collectively, the "Managers") are managers of Longwood Fund II GP, LLC, and, as such, may be deemed to have shared voting and dispositive power with respect to the issuer's securities held by Longwood Fund II, L.P. (the "Longwood Shares"). Each of the Managers disclaims beneficial ownership of the Longwood Shares, except to the extent of their respective pecuniary interest therein, and the inclusion of these shares in this report shall not be deemed an admission of beneficial ownership of the shares for purposes of Section 16 or for any other purpose.

Remarks:

/s/ Robert Hadfield, Attorneyin-Fact

06/03/2015

** 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.

 $^{1. \} The purchase reported in this Form 4 was effected pursuant to a Rule 10b5-1 trading plan adopted on February 17, 2015.$