FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington D.C. 20549

vvasinigtori,	D.C. 20040

STATEMENT OF CHANGES IN BEI	NEFICIAL OWNERSHIP

OMB APPROVAL

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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]								Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director X 10% Owner							
(Last) (First) (Middle) C/O FLEX PHARMA, INC. 800 BOYLSTON STREET						3. Date of Earliest Transaction (Month/Day/Year) 12/07/2015								X Officer (give title Other (specify below) President and CEO							
(Street) BOSTON MA 02199 (City) (State) (Zip)							4. If Amendment, Date of Original Filed (Month/Day/Year)								Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person						
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																					
1. Title of Security (Instr. 3) 2. Transaction Date (Month/Day/Y					Execution Date,		3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 an			Beneficially Owned Following		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 12/07/202						15		P ⁽¹⁾		907	A	\$12.01	162 3,92		24,321		D				
Common Stock														2,697,264			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) 2. Conversion or Exercise Price of Derivative Security Security 3. Transaction Date (Month/Day/Year) (Month/Day/Year) 34. Deemed Execution Date (Month/Day/Year) (Month/Day/Year)				tion Date,	4. Transaction Code (Instr. 8)				Expir	te Exer ation D th/Day/		7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4)		Dei	Price of erivative ecurity nstr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4)	у	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	Beneficial Ownership (Instr. 4)		
					Code	ode V (A) (D)			Date Exercisable		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 12/07/2015

** 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.

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