SEC Form 4	
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FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

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

OMB APPROVAL										
OMB Number:	3235-0287									
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hours per response: 0.5	Estimated average burden	
	hours per response:	0.5

			2. Issuer Name and Ticker or Trading Symbol Flex Pharma, Inc. [FLKS]	(Chec	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director X 10% Owner					
I					Director					
C/O FLEX PHARMA, INC.		(Middle)	3. Date of Earliest Transaction (Month/Day/Year)		Officer (give titl below)	9	Other (specify below)			
			08/31/2015		Preside	CEO				
800 BOYLSTON STREET										
(Street)			4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Indi	vidual or Joint/Gro	up Filing	(Check Applicable			
BOSTON	МА	02199		X	Form filed by C	ne Repor	ting Person			
					Form filed by N Person	lore than	One Reporting			
(City)	(State)	(Zip)			FEISUII					

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

	······································										
1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transa Code (8)		tion Disposed Of (D) (Instr. 3, 4 and 5) Securities Frustr.		ties Form: Direct cially (D) or Indirect Following (I) (Instr. 4)				
			Code	v	Amount	(A) or (D)	Price	Transaction(s) (Instr. 3 and 4)		(Instr. 4)	
Common Stock	08/31/2015		P ⁽¹⁾		887	A	\$12.495	3,912,328	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	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transa Code (8)		5. Nu of Deriv Secu Acqu (A) or Dispo of (D) (Instr and 5	ative rities ired osed	6. Date Exerc Expiration Da (Month/Day/Y	Amount of		Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	Ownership Form: Direct (D)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
				Code	v	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

Explanation of Responses:

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

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:

<u>/s/ Robert Hadfield, Attorney-</u> <u>in-Fact</u> 09/01/2015

** Signature of Reporting Person

Date

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

 \ast 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.