

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934
(Amendment No. 1)*

Flex Pharma, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001 per share

(Title of Class of Securities)

33938A105

(CUSIP Number)

John Lawrence
c/o Longwood Fund Management, LLC
Prudential Tower, Suite 1555
800 Boylston Street
Boston, Massachusetts 02199
(617) 351-2590

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

November 6, 2018

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1. Name of Reporting Persons
Christoph Westphal, M.D., Ph.D.

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3. SEC Use Only

4. Source of Funds (See Instructions)
PF

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)

6. Citizenship or Place of Organization
United States citizen

7. Sole Voting Power
882,818

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With

8. Shared Voting Power
0

9. Sole Dispositive Power
882,818

10. Shared Dispositive Power
0

11. Aggregate Amount Beneficially Owned by Each Reporting Person
882,818

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13. Percent of Class Represented by Amount in Row 11
4.89%

14. Type of Reporting Person (See Instructions)

Explanatory Note: This Amendment No. 1 to Schedule 13D is being filed by Christoph Westphal, M.D., Ph.D. (the “Reporting Person”), pursuant to § 240.13d-2(a), to amend the Schedule 13D filed by the Reporting Person on October 26, 2018 (the “Existing Schedule 13D”) relating to the Common Stock \$0.0001 par value per share (the “Common Stock”) of Flex Pharma, Inc. (the “Issuer”). The purpose of this amendment is to reflect the shares of Common Stock gifted by the Reporting Person on November 6, 2018 and December 20, 2018. Except as set forth below, all Items of the Existing Schedule 13D remain unchanged. All capitalized terms not otherwise defined herein shall have the meanings ascribed to such terms in the Existing Schedule 13D.

Item 1. Security and Issuer.

There are no amendments to Item 1 of the Existing Schedule 13D.

Item 2. Identity and Background.

There are no amendments to Item 2 of the Existing Schedule 13D.

Item 3. Source and Amount of Funds or Other Consideration.

There are no amendments to Item 3 of the Existing Schedule 13D.

Item 4. Purpose of Transaction.

As a result of the transactions listed in item 5(c) to this Schedule 13D, the Reporting Person no longer holds 5% of the outstanding shares of Common Stock.

Item 5. Interest in Securities of the Issuer.

(a)(b)

The aggregate percentage of shares of Common Stock reported beneficially owned by the Reporting Person is determined in accordance with SEC rules and is based upon 18,069,476 shares of the Issuer’s Common Stock outstanding as of October 31, 2018, as set forth on the cover page of the Issuer’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2018. As of the close of business on December 20, 2018, the Reporting Person beneficially owned 882,818 shares of Common Stock, representing approximately 4.89% of the outstanding shares of Common Stock. 844,627 of these shares are directly held by the Reporting Person, 22,321 are directly held by The Christoph H. Westphal Revocable Trust of 2007 and 15,870 are directly held by The Christoph Westphal Roth IRA.

(c)

As a result of the gifts made on November 6, 2018 and December 20, 2018, the Reporting Person no longer beneficially owns 5% of the outstanding shares of Common Stock of the Issuer.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

There are no amendments to Item 6 of the Existing Schedule 13D.

Item 7. Material to be Filed as Exhibits.

There are no amendments to Item 6 of the Existing Schedule 13D.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: December 21, 2018

/s/ Christoph Westphal

Christoph Westphal, M.D., Ph.D.