UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

April 1, 2015

Date of Report (Date of earliest event reported)

Flex Pharma, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction

of incorporation)

001-36812 (Commission File Number) 46-5087339 (IRS Employer Identification No.)

800 Boylston Street, 24th Floor Boston, MA

(Address of principal executive offices)

02199 (Zip Code)

Registrant's telephone number, including area code: (617) 874-1821

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligations of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On April 1, 2015, the Board of Directors (the "Board") of Flex Pharma, Inc., a Delaware corporation (the "Company"), unanimously voted to increase the size of the Board to seven members and to elect Jeffrey Capello to the Board, effectively immediately. Mr. Capello was designated as a Class III member of the Board to serve until the 2018 annual meeting of the Company's stockholders, or until his successor has been duly elected and qualified, or until his earlier death, resignation or removal. The Board also elected Mr. Capello as the Chairman of the Audit Committee of the Board.

There are no arrangements or understandings between Mr. Capello and any other person pursuant to which he was elected as a director. Mr. Capello will be paid compensation in the same manner as the Company's other non-employee directors. Information concerning the current cash compensation of the Company's directors is set forth in the Company's final prospectus dated January 28, 2015 and filed with the U.S. Securities and Exchange Commission (the "SEC") on January 29, 2015 pursuant to Rule 424(b) under the Securities Act of 1933, as amended.

In connection with his appointment to the Board, Mr. Capello has entered into the Company's standard form of Indemnity Agreement, a copy of which was filed as Exhibit 10.1 to Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-201276) filed with the SEC on January 13, 2015.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Flex Pharma, Inc.

Dated: April 6, 2015

By: /s/ John McCabe

John McCabe Vice President, Finance