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 3, 2017 Date of Report (Date of earliest event reported)

ATYR PHARMA, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 001-37378 (Commission File Number) 20-3435077 (IRS Employer Identification No.)

3545 John Hopkins Court, Suite #250 San Diego, California 92121

(Address of principal executive offices, including zip code)

(858) 731-8389

(Registrant's telephone number, including area code)

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)

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

D 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.

(d)

Effective as of April 3, 2017, the aTyr Pharma, Inc. (the "Company") Board of Directors (the "Board") appointed Jeffrey S. Hatfield to the Board. Mr. Hatfield was appointed as a Class III director, and will serve until the Company's annual meeting of stockholders in 2018 or until his successor is duly elected and qualified or his earlier resignation or removal. As a non-employee director, Mr. Hatfield will receive cash and equity compensation pursuant to the Company's current non-employee director compensation policy.

Mr. Hatfield most recently served as President, Chief Executive Officer and a member of the Board of Directors of Vitae Pharmaceuticals ("Vitae") from 2004 to 2016. Mr. Hatfield took Vitae public in 2014, and in October 2016, Vitae was acquired by Allergan plc. Prior to joining Vitae, Mr. Hatfield worked at Bristol-Myers Squibb in a variety of executive positions, including: Senior Vice President of BMS's Immunology and Virology Divisions, where he was responsible for all aspects of the \$1 billion business; President and General Manager, Canada; and Vice President, U.S. Managed Health Care. He previously served as a Board member of Ambit Biosciences before its acquisition by Daiichi-Sankyo in 2015, and as a member of the Board of Directors of the Biotechnology Industry Organization (BIO), serving on the Executive Company Section. Mr. Hatfield currently serves as a Board member of InVivo Therapeutics, a biotechnology company, and as a member of the Advisory Committees for: Purdue University's College of Pharmacy, where he is a Distinguished Alumni and is on faculty; Drexel University's LeBow College of Business; and the Chapman-KGI School of BioPharmacy. Mr. Hatfield holds an M.B.A. from The Wharton School, University of Pennsylvania and a bachelor's degree in Pharmacy from Purdue University.

Mr. Hatfield is not a party to any transaction with the Company that would require disclosure under Item 404(a) of Regulation S-K, and there are no arrangements or understanding between Mr. Hatfield and any other persons pursuant to which Mr. Hatfield was selected as a director.

In connection with the appointment as director, Mr. Hatfield entered into the Company's standard form of indemnification agreement and was granted an option to purchase 32,000 shares of the Company's Common Stock at an exercise price to be the closing price of the Company's common stock on the Nasdaq Global Select Market on April 3, 2017, which will vest in equal monthly installments during the three years following the effective date of his appointment to the Board, subject to Mr. Hatfield's continued service on the Board.

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SIGNATURE

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.

ATYR PHARMA, INC.

By: /s/ John D. Mendlein

John D. Mendlein, Ph.D. Chief Executive Officer

Date: April 3, 2017