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

November 1, 2017
Date of Report (Date of earliest event reported)

ATYR PHARMA, INC.
(Exact name of registrant as specified in its charter)

Delaware	**001-37378**	**20-3435077**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(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)

☐ 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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☒

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

On November 1, 2017, aTyr Pharma, Inc. (the “Company”) announced a leadership transition. Sanjay S. Shukla, M.D., M.S., the Company’s Chief Medical Officer, will succeed John D. Mendlein, Ph.D., the Company’s current Chief Executive Officer. The Board of Directors of the Company appointed Dr. Shukla as the Company’s next President and Chief Executive Officer and designated Dr. Shukla as the Company’s principal executive officer effective as of November 1, 2017. Dr. Mendlein will continue as a director of the Company and will serve as a strategic advisor to the Company.

Dr. Shukla, age 46, has previously served as the Company’s Chief Medical Officer since March 2016. From April 2015 to March 2016, Dr. Shukla worked in an advisory capacity for a number of companies, including as a consultant to aTyr Pharma from January 2016 to March 2016. Prior to that, from October 2012 to April 2015, Dr. Shukla served as Vice President and Global Head of Integrated Medical Services for Novartis, a biopharmaceutical company, where he led global medical affairs operations, with oversight for all pharma general medicines therapies, both inline and in development. Dr. Shukla served as Chief Executive Officer of RxMD, a clinical development consultancy that assisted in advancing proof of concept for early stage drug candidates, from April 2009 to September 2012. Prior to that, Dr. Shukla served in a variety of clinical development, data analytics and drug safety roles at Vifor Pharma, a biopharmaceutical company, and Aspreva Pharmaceuticals (acquired by Vifor Pharma). Dr. Shukla received his M.D. from Howard University College of Medicine and his Bachelors of Science in Microbiology and Master of Science in Epidemiology and Biostatistics from the University of Maryland.

Under the terms of an employment agreement with Dr. Shukla (the “CEO Employment Agreement”), Dr. Shukla shall be entitled to an initial annual base salary of $450,000, subject to annual review and increase as determined by the Compensation Committee. In addition, Dr. Shukla is considered for an annual bonus target, in the amount of 45% of his then-current base salary for the rest of 2017, and then in an amount of 50% of his then-current base salary for years thereafter, as determined by the Compensation Committee. Dr. Shukla shall also be granted an option to purchase 450,000 shares of the Company’s common stock, to be effective as of November 1, 2017, pursuant to the Company’s equity award plan.

Dr. Shukla’s employment is at-will. In the event that Dr. Shukla’s employment is terminated by Dr. Shukla for Good Reason or by the Company without Cause (as such terms are defined in the CEO Employment Agreement), Dr. Shukla will be entitled to receive (i) the amount of his accrued but unpaid salary and unpaid expense reimbursements and any accrued but unused vacation as of the date of termination, (ii) any vested benefits Dr. Shukla may have under any employee benefit plan, which shall be paid in accordance with the terms of such employee benefit plans, as of the date of termination, (iii) any earned but unpaid incentive compensation from the prior calendar year, (iv) an amount equal to Dr. Shukla’s current annual base salary plus his annual target incentive compensation in the year of termination, (v) acceleration of the time-based vesting provisions of all stock options or other stock-based awards that would have vested within 12 months of the termination, (vi) payment of the amount that would reasonably be required to obtain equivalent health insurance coverage for up to 12 months after termination, in the case of each of (iv), (v) and (vi), subject to the execution of a separation agreement and release.

In the event that Dr. Shukla’s employment is terminated by the Company without Cause or by Dr. Shukla for Good Reason within two months prior and 12 months after any Change in Control, as defined in the CEO Employment Agreement, Dr. Shukla is entitled to (i) a cash payment equal to 1.0 times his then-current base salary plus his annual target incentive compensation in the year of termination, (ii) full acceleration of the time-based vesting provisions of all outstanding stock options or other stock-based awards, and (iii) payment of the amount that would reasonably be required to obtain equivalent health insurance coverage for up to 12 months after termination.

Other than as set forth in the Employment Agreement, there are (a) no understandings or arrangements between Dr. Shukla and any other person pursuant to which he was appointed as principal executive officer of the Company and (b) Dr. Shukla has no material interest in any transaction or proposed transaction in which the Company is or is to be a party. Dr. Shukla has no family relationship with any director or executive officer of the Company.

In addition to serving as President and CEO, Dr. Shukla was nominated and appointed to serve as a director of the Company’s Board effective November 1, 2017. Dr. Shukla 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.

Dr. Mendlein's last day of employment with the Company will be December 31, 2017. Thereafter, he will serve as a strategic advisor to the Company pursuant to the terms of an advisor agreement entered with Dr. Mendlein (the "Strategic Advisor Agreement"). Pursuant to the terms of the Strategic Advisor Agreement, the Company agreed to (i) pay Dr. Mendlein as a strategic advisor to the Company for a period of up to four years, at a monthly rate of $42,500 for the first year and $7,500 per month for the rest of the term; (ii) as part of its annual review of compensation, pay Dr. Mendlein a to-be-determined cash bonus in February 2018 with respect to 2017 performance, (iii) reimburse Dr. Mendlein for certain benefits continuation through December 31, 2018; (iv) allow for continued vesting of Dr. Mendlein's outstanding time-based employee stock options so long as Dr. Mendlein is providing services to the Company as a strategic advisor; (v) provide for an extended option exercise period with respect to certain employee stock options held by Dr. Mendlein; and (vi) fully accelerate the vesting of all of his outstanding time-based employee stock options in the event of a change in control. Either party may terminate the Strategic Advisor Agreement after the first year, provided that payments under the agreement and continued vesting of outstanding employee stock options are guaranteed through the second year of the agreement in the event the Board terminates the agreement for convenience or Dr. Mendlein terminates for the Company's material breach of the agreement.

As a non-employee director, Dr. Mendlein will receive cash and equity compensation as of January 1, 2018 pursuant to the Company's non-employee director compensation policy.

The foregoing descriptions of the Employment Agreement and the Strategic Advisor Agreement do not purport to be complete and are qualified in their entirety by reference to the Employment Agreement and the Strategic Advisor Agreement, which the Company intends to file with the Securities and Exchange Commission as exhibits to its Quarterly Report on Form 10-Q for the period ending September 30, 2017.

Item 7.01 Regulation FD

The company issued a press release on November 1, 2017, a copy of which is attached hereto as Exhibit 99.1

The information furnished pursuant to this Item 7.01 in this Current Report on Form 8-K, including Exhibit 99.1, shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended ("Exchange Act") or otherwise subject to the liability of that section, nor shall such information be deemed incorporated by reference in any filing under the Exchange Act or the Securities Act of 1933, as amended, regardless of the general incorporation language of such filing, except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Exhibits.

(d) Exhibits.

99.1 Press Release dated November 1, 2017.

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 T. Blake
John T. Blake
Senior Vice President, Finance

Date: November 1, 2017

Exhibit 99.1

IMMEDIATE RELEASE
Contact:
Mark Johnson
Sr. Director, Investor Relations
mjohnson@atyrpharma.com
858-223-1163

aTyr Pharma Announces Leadership Transition

- *Dr. John Mendlein Transitions from CEO to Non-Executive Board Member*
- *Dr. Sanjay Shukla Appointed President and CEO*

SAN DIEGO – November 1, 2017 – aTyr Pharma, Inc. (Nasdaq: LIFE), a biotherapeutics company engaged in the discovery and development of immunology-based protein therapeutics to treat patients suffering from severe, rare immune-mediated diseases, as well as various cancers, announced that today Sanjay Shukla, M.D., M.S., who joined aTyr Pharma as Chief Medical Officer in March 2016, will succeed John Mendlein, Ph.D., as President and Chief Executive Officer. Dr. Shukla will also join aTyr's Board of Directors. Dr. Mendlein, who has served as Chief Executive Officer since September 2011 and as a member of the Board of Directors since July 2010, will continue to serve on the Board of Directors of aTyr Pharma.

"This is an excellent time for aTyr as we are well-positioned for future growth with strong leadership to drive forward our shared vision to develop meaningful medicines for patients with rare muscle and lung diseases, as well as to serve cancer patients with products based on our new immuno-oncology platform, ORCA," said John Mendlein, outgoing-CEO of aTyr Pharma. "After six incredible years as CEO, I am very pleased to pass the leadership torch to Sanjay and continue to advise him as a board member. Having worked extensively with Sanjay, I am confident he will continue to elevate aTyr to greater heights for patients and all stakeholders alike. I would like to express my immense gratitude to all our amazing employees, board, patients, and investors for all that we have accomplished so far at aTyr."

"We are truly grateful for John's leadership in guiding aTyr through several key milestones, including bringing the first Physiocrine-based therapeutic into the clinic, building a well-capitalized, NASDAQ-traded company, growing a robust pipeline of three biologic programs and solidifying aTyr's intellectual property estate for an entire new class of proteins," said John Clarke, chairman of aTyr Pharma's board. "We thank John for his leadership and accomplishments at aTyr and wish him well in all his future endeavors. Looking forward, we are excited about this transition and confident that under Sanjay's leadership, aTyr will continue to grow and successfully deliver upon its important mission."

Dr. Shukla will continue aTyr's mission to develop innovative new protein therapeutics based on its knowledge of Physiocrine biology. Dr. Shukla served as aTyr's Chief Medical Officer since March 2016 and has over twenty years of leadership experience in both large pharma and biotech companies. Since joining aTyr, Dr. Shukla led the completion of three Phase 1b/2 Resolaris™ clinical trials and two long-term safety extension studies for the treatment of rare muscular dystrophies and has advanced the iMod.Fc program for the treatment of interstitial lung diseases towards the clinic with a Phase 1 trial expected to commence this quarter.

“I am excited for the opportunity to lead aTyr at such a productive time for the company,” said Sanjay Shukla, President and CEO of aTyr Pharma. “Our team has made tremendous progress in elucidating the biology and laying the groundwork for the potential therapeutic applications of this groundbreaking new science, under John’s leadership. I am ready to lead our team forward to continue to build on this strong foundation of success. Our mission remains steadfast and during this quarter we intend to bring a second Physiocrine-based therapeutic candidate into the clinic with an iMod.Fc Phase 1 trial and select an antibody to develop as an IND candidate from our ORCA program.”

About aTyr Pharma

aTyr Pharma is engaged in the discovery and clinical development of innovative medicines for patients using its knowledge of Physiocrine biology, a newly discovered set of immunological and physiological pathways. To date, aTyr has generated three innovative therapeutic programs with three different biologic modalities based on its knowledge of the Resokine pathway to treat patients suffering from severe, rare immune-mediated diseases, as well as various cancers. The Resolaris and iMod.Fc programs are agonists of the Resokine pathway designed to temper immune system engagement in diseases characterized by excessive immune cell involvement. aTyr’s third program, ORCA, represents a novel, proprietary pathway in immuno-oncology that utilizes antibody approaches to block the Resokine pathway and ‘release multiple brakes’ on the immune system in the tumor cell environment. aTyr has built an intellectual property estate, to protect its pipeline, comprising over 220 issued patents or allowed patent applications that are owned or exclusively licensed, including over 300 potential Physiocrine-based protein compositions. For more information, please visit http://www.atyrpharma.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Litigation Reform Act. Forward-looking statements are usually identified by the use of words such as “anticipates,” “believes,” “estimates,” “expects,” “intends,” “may,” “plans,” “projects,” “seeks,” “should,” “will,” and variations of such words or similar expressions. We intend these forward-looking statements to be covered by such safe harbor provisions for forward-looking statements and are making this statement for purposes of complying with those safe harbor provisions. These forward-looking statements, including statements regarding the timing of our clinical trials and IND candidate selection and the scope and strength of our intellectual property portfolio reflect our current views about our plans, intentions, expectations, strategies and prospects, which are based on the information currently available to us and on assumptions we have made. Although we believe that our plans, intentions, expectations, strategies and prospects as reflected in or suggested by those forward-looking statements are reasonable, we can give no assurance that the plans, intentions, expectations or strategies will be attained or achieved. Furthermore, actual results may differ materially from those described in the forward-looking statements and will be affected by a variety of risks and factors that are beyond our control including, without limitation, risks associated with the discovery, development and regulation of our Physiocrine-based product candidates, the risk that we may cease or delay preclinical or clinical development activities for any of its existing or future product candidates for a variety of reasons (including difficulties or delays in patient enrollment in planned clinical trials), and the risk that we may not be able to raise the additional funding required for its business and product development plans, as well as those set forth in our most recent Annual Report on Form 10-K for the year ended December 31, 2016 and in our other SEC filings. Except as required by law, we assume no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.