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

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934
(Amendment No.)

Filed by the Registrant ☒ Filed by a Party other than the Registrant ☐

Check the appropriate box:

☐ Preliminary Proxy Statement
☐ **Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
☐ Definitive Proxy Statement
☒ Definitive Additional Materials
☐ Soliciting Material under §240.14a-12

ATYR PHARMA, INC.
(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

☒ No fee required.
☐ Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

☐ Fee paid previously with preliminary materials.
☐ Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

April 2019

To our stockholders,

We made significant progress during 2018 as we worked to transition our innovative science into cogent clinical programs. By emphasizing a data driven approach to strategic portfolio decisions we advanced our science with transparent and efficient execution. This approach led us to make tough decisions, as we did earlier in 2018 with an early stage program where the data did not justify immediate further development. This decision led to a difficult--yet appropriate--corporate restructuring. We decided to focus our resources on the ATYR1923 program and we critically interrogated multiple translational animal models of efficacy generating consistent readouts that supported advancement of ATYR1923 into the clinic. We established initial safety and tolerability evidence for ATYR1923 after conducting a successful Phase I single ascending dose clinical trial. After collaborating with leading worldwide lung disease experts to review our translational data, we chose pulmonary sarcoidosis as our first clinical indication for ATYR1923. We subsequently submitted an IND application to the FDA and launched our ATYR1923 Phase 1b/2a clinical trial in pulmonary sarcoidosis patients during the fourth quarter, as planned.

ATYR1923 is a selective modulator of Neuropilin-2 (NRP-2) that downregulates the innate and adaptive immune response in inflammatory disease states. Pulmonary sarcoidosis is a rare and potentially debilitating and fatal disease characterized by inflammation in the lungs that, if left untreated, can result in irreversible scarring of the lung tissue and declining lung function. While corticosteroids represent the current standard of care for symptom control, many patients are refractory, suggesting a significant need for novel therapeutic approaches for this condition.

In addition to our own development work, we continue to forge relationships with leading partners to further leverage our proprietary drug discovery engine. Our recently-announced research collaboration with CSL Behring, a global biotherapeutics leader, represents an important validation of our science. CSL will fund all research and development activities related to the development of product candidates from up to four tRNA synthetases from our preclinical pipeline, and we are eligible to receive option fees for each candidate that CSL chooses to advance – a potential source of non-dilutive financing that we can use to fund our ongoing internal R&D activities.

In closing, I would like to thank you, our stockholders, for your continued support as we translate our novel biology into tangible new therapeutics for patients to treat conditions with high unmet medical need.

Sincerely,

Sanjay S. Shukla, M.D., M.S.
President and Chief Executive Officer