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

Date of Report (Date of earliest event reported): November 5, 2026

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.)**

10240 Sorrento Valley Road, Suite 300 **San Diego, CA** **(Address of Principal Executive Offices)**	**92121** **(Zip Code)**

Registrant's telephone number, including area code: (858) 731-8389

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation 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))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	ATYR	The Nasdaq Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 2.02 Results of Operations and Financial Condition.

On November 5, 2026, aTyr Pharma, Inc. issued a press release announcing financial results for the quarter ended September 30, 2026. A copy of the press release is furnished as Exhibit 99.1 to this report and is incorporated herein by reference.

The information under this Item 2.02, including Exhibit 99.1 hereto is being furnished and shall not be deemed "filed" for the purposes of Section 18 of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall such information be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press Release, dated November 5, 2026
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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/ Brandon Yaras
Brandon Yaras
Chief Financial Officer

Date: November 5, 2026

Exhibit 99.1

Contact:
Ashlee Dunston
Investor Relations and Public Affairs
adunston@atyrpharma.com

aTyr Pharma Announces Third Quarter 2026 Results and Provides Corporate Update

Reached alignment with FDA on proposed Phase 3 study of efzofitimod in pulmonary sarcoidosis with restrictive lung disease utilizing FVC as primary endpoint; study-related activities initiated.

Company to prioritize strategic partnerships to advance Phase 3 study of efzofitimod in pulmonary sarcoidosis.

Ended the third quarter 2026 with $50.3 million in cash, cash equivalents, restricted cash and investments; cash runway into late 2028 based on current operational plans.

SAN DIEGO – November 5, 2026 – aTyr Pharma, Inc. (Nasdaq: ATYR) ("aTyr" or the "Company"), a clinical stage biotechnology company engaged in the discovery and development of first-in-class medicines from its proprietary tRNA synthetase platform, today announced third quarter 2026 results and provided a corporate update.

"During the last quarter we reached alignment with the U.S. Food and Drug Administration (FDA) on the protocol for a Phase 3 study of our lead therapeutic candidate, efzofitimod, in pulmonary sarcoidosis patients with restrictive lung disease, a major form of interstitial lung disease (ILD) with a high unmet medical need," said Sanjay S. Shukla, M.D., M.S., President and Chief Executive Officer of aTyr. "We believe the efzofitimod program is well-positioned, considering the late-stage development status in an indication with a multi-billion-dollar global market opportunity, and have determined that at this time the best way for us to advance efzofitimod is to prioritize strategic partnerships."

Third Quarter 2026 and Subsequent Period Highlights

- **Reached alignment with the FDA on the protocol for a global Phase 3 study of efzofitimod in patients with chronic, symptomatic pulmonary sarcoidosis with restrictive lung disease.** The Company recently initiated study-related activities for the trial and is prioritizing strategic partnerships and/or licensing arrangements in order to advance the Phase 3 study beyond the completion of the initial study-related activities.
- **Completed enrollment in the Phase 2 EFZO-CONNECT™ study of efzofitimod in patients with limited or diffuse systemic sclerosis (SSc)-related ILD (SSc-ILD).** Full study results are expected in the second quarter of 2027. These will include data for multiple study endpoints, including the

modified Rodnan Skin Score, skin histopathology, gene expression profiling, immune biomarkers, forced vital capacity, and an exposure response analysis.

- **Published the results of the Phase 3 EFZO-FIT™ study of efzofitimod in pulmonary sarcoidosis in *The Lancet Respiratory Medicine*.** The peer-reviewed publication reinforces efzofitimod's differentiated profile and potential to advance pulmonary sarcoidosis care. The publication is available on the Company's website.
- **Published a manuscript demonstrating the mechanism of action and anti-fibrotic effects of ATYR0101 in the *Journal of Biological Chemistry*.** ATYR0101 is a fusion protein that interacts with latent transforming growth factor beta binding protein 1 (LTBP-1) through a unique way that presents a differentiated approach to targeting fibrosis. The publication is available on the Company's website.
- **Announced a research collaboration for pediatric osteosarcoma with Montefiore Einstein involving preclinical studies of ATYR2810, the Company's monoclonal antibody that targets the neuropilin-2 (NRP2) receptor.** The collaboration is to further the development and testing of ATYR2810 in an aggressive cancer where NRP2 is implicated.

Third Quarter 2026 Financial Highlights and Cash Position

- **Cash & Investment Position:** Cash, cash equivalents, restricted cash and available-for-sale investments as of September 30, 2026, were $50.3 million. Based on its current cash and operating expense forecast and plans, the Company anticipates that this cash position will be sufficient to fund the Company's current operations into late 2028.
- **R&D Expenses:** Research and development expenses were $10.4 million for the third quarter 2026, which consisted primarily of costs for the Phase 2 EFZO-CONNECT™ study and research and development costs for the Company's preclinical product candidates.
- **G&A Expenses:** General and administrative expenses were $8.3 million for the third quarter 2026.

About Efzofitimod

Efzofitimod is a novel biologic immunomodulator in clinical development for the treatment of interstitial lung disease (ILD), a group of immune-mediated disorders that can cause inflammation and fibrosis, or scarring, of the lungs. Efzofitimod is a tRNA synthetase derived therapy that selectively modulates activated myeloid cells through neuropilin-2 to resolve inflammation without immune suppression and potentially prevent the progression of fibrosis. Efzofitimod is currently being investigated in the Phase 2 EFZO-CONNECT™ study in patients with systemic sclerosis (SSc, or scleroderma)-related ILD, and aTyr recently initiated study-related activities for a global Phase 3 study of efzofitimod in patients with pulmonary sarcoidosis, a major form of ILD. These forms of ILD have limited therapeutic options and there is a need for safer and more effective, disease-modifying treatments that improve outcomes.

About aTyr

aTyr is a clinical stage biotechnology company leveraging evolutionary intelligence to translate tRNA synthetase biology into new therapies for fibrosis and inflammation. tRNA synthetases are ancient, essential proteins that have evolved novel domains that regulate diverse pathways extracellularly in humans. aTyr's discovery platform is focused on unlocking hidden therapeutic intervention points by uncovering signaling pathways driven by its proprietary library of domains derived from all 20 tRNA synthetases. aTyr's lead therapeutic candidate is efzofitimod, a novel biologic immunomodulator in clinical development for the treatment of interstitial lung disease, a group of immune-mediated disorders that can cause inflammation and progressive fibrosis, or scarring, of the lungs. For more information, please visit www.atyrpharma.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are usually identified by the use of words such as "advance," "aims," "anticipates," "believes," "can," "continue," "designed," "expects," "hopes," "intends," "look toward," "may," "plans," "potential," "project," "suggest," "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 include, among others, statements regarding our operating expense forecast and plans and the resulting cash runway sufficiency into late 2028 based on current operations; expected cash needs to develop efzofitimod in our proposed Phase 3 study in pulmonary sarcoidosis and our prioritization of strategic partnerships and/or licensing arrangements in order to advance the proposed Phase 3 study beyond the completion of the initial study-related activities; our assessment of efzofitimod's development and commercial prospects, including the market opportunity in pulmonary sarcoidosis; the potential therapeutic benefits and applications of our product candidates; timelines and plans with respect to certain development activities and development goals; the proposed design of our proposed Phase 3 study of efzofitimod in pulmonary sarcoidosis, including the targeted endpoints and strategy to focus on a more limited patient population; our interpretation of the results of the Phase 3 EFZO-FIT™ study and the meaning of those interpretations for continued development and potential clinical utility of efzofitimod, including our proposed Phase 3 study; our expectation that we will report full study results from the Phase 2 EFZO-CONNECT™ study in the second quarter of 2027, including the anticipated scope of data analyses to be reported; the potential for ATYR0101 to provide a differentiated approach to targeting fibrosis; the objectives and anticipated development and testing activities under our research collaboration with Montefiore Einstein for ATYR2810 in pediatric osteosarcoma; and the therapeutic potential and development objectives of our tRNA synthetase discovery platform and other product candidates. These forward-looking statements also 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 these forward-looking statements, are reasonable, we can give no assurance that the plans,

intentions, expectations, strategies or prospects will be attained or achieved. All forward-looking statements are based on estimates and assumptions by our management that, although we believe to be reasonable, are inherently uncertain. Furthermore, actual results may differ materially from those described in these forward-looking statements and will be affected by a variety of risks and factors that are beyond our control including, without limitation, uncertainty related to interactions with the FDA in general, including the risk that alignment on the proposed Phase 3 study protocol may not result in a successful study or regulatory approval, the risk that we may be unable to enter into strategic partnerships and/or licensing arrangements for efzofitimod on acceptable terms, within anticipated timeframes or at all, risks related to our reliance on third-party partners and the potential that such partners may not perform as anticipated, risks inherent in partnering with third parties for development and testing of our product candidates, the fact that NRP2 and tRNA synthetase biology is not fully understood, uncertainty regarding the ultimate long-term impact of evolving macroeconomic and geopolitical conditions, the risks associated with targeting a more limited patient population in our proposed Phase 3 study of efzofitimod in pulmonary sarcoidosis, the risk of delays in our clinical trials, risks associated with the discovery, development and regulation of our existing or future product candidates, including the uncertainty of related costs and regulatory filings and the risk that results from clinical trials or other studies may not support further development, the risk that we may cease or delay preclinical or clinical development activities for any of our existing or future product candidates for a variety of reasons (including difficulties or delays in patient enrollment in future clinical trials), the fact that our collaboration agreements are subject to early termination, the risk that our assumptions and forecasts with respect to our workforce reduction and program prioritization may be materially inaccurate, the risk that our existing cash resources may be insufficient to fund our current operations for as long as anticipated due to changes in our operating plans, unanticipated expenses or other factors, and the risk that we may not be able to raise the additional funding required for our business and product development plans, as well as those risks set forth in our most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q 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.

ATYR PHARMA INC.
Condensed Consolidated Statements of Operations
(in thousands, except share and per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2026	2025	2026	2025
	(unaudited)			
Revenues:				
License and collaboration agreement revenues	$ —	$ 190	$ —	$ 190
Total revenues	—	190	—	190
Operating expenses:				
Research and development	10,445	22,130	24,510	49,328
General and administrative	8,347	4,805	16,599	13,693
Total operating expenses	18,792	26,935	41,109	63,021
Loss from operations	(18,792)	(26,745)	(41,109)	(62,831)
Total other income (expense), net	535	999	1,750	2,672
Consolidated net loss	(18,257)	(25,746)	(39,359)	(60,159)
Net (gain) loss attributable to noncontrolling interest in Pangu BioPharma Limited	(4)	2	(2)	4
Net loss attributable to aTyr Pharma, Inc.	$ (18,261)	$ (25,744)	$ (39,361)	$ (60,155)
Net loss per share, basic and diluted	$ (7.43)	$ (10.60)	$ (16.04)	$ (26.36)
Shares used in computing net loss per share, basic and diluted	2,456,680	2,428,822	2,453,176	2,282,284

ATYR PHARMA INC.
Condensed Consolidated Balance Sheets
(in thousands)

	September 30, 2026	December 31, 2025
	(unaudited)	
Cash, cash equivalents, restricted cash and available-for-sale investments	$ 50,253	$ 80,922
Other receivables	580	873
Property and equipment, net	3,380	4,263
Operating lease, right-of-use assets	4,349	5,524
Financing lease, right-of-use assets	181	596
Prepaid expenses and other assets	1,063	825
Total assets	$ 59,806	$ 93,003
Accounts payable and accrued expenses	$ 15,095	$ 13,682
Current portion of operating lease liability	1,003	836
Current portion of financing lease liability	365	630
Long-term operating lease liability, net of current portion	9,529	10,308
Long-term financing lease liability, net of current portion	22	259
Total stockholders' equity	33,792	67,288
Total liabilities and stockholders' equity	$ 59,806	$ 93,003