



aTyr Pharma Announces Research Collaboration with Montefiore Einstein

October 19, 2026

Collaboration involves Company's anti-NRP2 antibody ATYR2810 in preclinical studies of pediatric osteosarcoma.

SAN DIEGO, Oct. 19, 2026 (GLOBE NEWSWIRE) -- 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 a research collaboration with Albert Einstein College of Medicine to further the development and testing of ATYR2810, the Company's monoclonal antibody that targets the neuropilin-2 (NRP2) receptor. The collaboration will be led by Bang H. Hoang, M.D., Arnold and Madeline Penner Professor and Co-Director of Orthopaedic Oncology in the Department of Orthopaedic Surgery at Montefiore Einstein. Dr. Hoang's research focuses on the pathophysiology and molecular mechanisms of bone and soft tissue cancer, including evaluating the role of NRP2 in pediatric bone cancers such as osteosarcoma.

"Aggressive solid tumors like osteosarcoma present a profound therapeutic challenge due to an immunosuppressive microenvironment. By selectively blocking the NRP2 signaling pathway, ATYR2810 is designed to disrupt myeloid-driven immune suppression and turn the tumor's own defense mechanism against itself," said Dr. Hoang. "This innovative strategy potentially offers a highly differentiated approach capable of altering the local tumor niche to mitigate both primary tumor progression and critical metastasis."

ATYR2810 has demonstrated anti-tumor effects in multiple preclinical models, including non-small cell lung cancer, triple-negative breast cancer, renal cell carcinoma and glioblastoma. These findings have been presented at scientific conferences, including the American Academy of Cancer Research, and published in a landmark publication in *Science Translational Medicine*.

"We are pleased to collaborate with Montefiore Einstein and Dr. Hoang, a leader in pediatric bone cancer, on this important research regarding the role of NRP2 in pediatric osteosarcoma," said Sanjay S. Shukla, M.D., M.S., President and Chief Executive Officer of aTyr Pharma. "While our focus has been on our tRNA synthetase-derived therapies, we have continued to contribute to the understanding of NRP2 in cancer through our research collaborations, and this collaboration presents an opportunity to investigate its role in another aggressive cancer where NRP2 is implicated."

Pediatric osteosarcoma is the most common type of primary malignant bone cancer in children and adolescents, with approximately 1000 new cases diagnosed every year in the U.S. While osteosarcoma is a bone cancer, it can spread to other organs and tissues in the body, most commonly starting with the lungs. Current standard of care typically includes a combination of chemotherapy and surgery, including limb-sparing surgery. Limb amputation is required in approximately 10% of cases. About 40% of those treated with osteosarcoma will experience a relapse or recurrence. Research that explores the underlying causes and mechanism of metastatic disease may lead to new treatments that can address and manage recurrence, which are greatly needed.

About ATYR2810

ATYR2810 is a fully humanized monoclonal antibody that is designed to specifically and functionally block the neuropilin-2 (NRP2) receptor. NRP2 is a cell surface receptor that is highly expressed in many tumors and is strongly implicated in more aggressive cancer progression, drug resistance development and metastatic spread. Recent data has demonstrated that the expression of NRP2 is also associated with the development of an immunosuppressive tumor microenvironment in a variety of tumors that do not respond to classical checkpoint inhibitors. Increased NRP2 expression is associated with worse outcomes in many cancers, including osteosarcoma, triple negative breast cancer, prostate cancer and pancreatic cancer. ATYR2810 is in preclinical development for the treatment of aggressive cancers where NRP2 is implicated, having successfully completed GLP toxicology testing in non-human primates and cGMP manufacturing.

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 efzofitmod, 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 "anticipate," "believes," "can," "could," "designed," "expects," "intends," "may," "plans," "potential," "upcoming," "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 the potential therapeutic benefits and applications of ATYR2810; timelines, plans and expected results with respect to certain research and development activities and the expected personnel involved in such activities; potential benefits of collaborations; and certain development goals. 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 regarding geopolitical and macroeconomic events, risks associated with the discovery, development and regulation of our product candidates, the risks inherent in studies of potential medical therapies, the risk that we or future partners 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 planned clinical trials), the possibility that future collaborations could be terminated early, 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.

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Source: aTyr Pharma, Inc.