



aTyr Pharma Announces Grant of U.S. Patent for Use of Histidyl-tRNA Synthetase Fc Fusion Proteins for Reducing Inflammatory Response in the Lung

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SAN DIEGO, July 29, 2021 (GLOBE NEWSWIRE) -- aTyr Pharma, Inc. (Nasdaq: LIFE), a biotherapeutics company engaged in the discovery and development of innovative medicines based on novel biological pathways, today announced that the U.S. Patent and Trademark Office (USPTO) has granted a patent covering methods for the use of histidyl-tRNA synthetase Fc fusion proteins for reducing inflammatory response in the lung. The patent, U.S. Patent No. 11,072,787 entitled, "Histidyl-tRNA synthetase-FC conjugates," covers the use of the company's lead therapeutic candidate, ATYR1923, for reducing inflammatory response in the lung.

ATYR1923 is a Fc fusion protein based on the N terminal fragment of histidyl-tRNA synthetase that is currently in clinical development for the treatment of pulmonary sarcoidosis and is being evaluated in other inflammatory lung diseases.

"We are pleased with the USPTO grant of this patent covering the use of ATYR1923 to treat inflammatory response in the lung, which builds upon our growing intellectual property estate on this lead molecule series," said Sanjay S. Shukla, M.D., M.S., President and Chief Executive Officer of aTyr.

aTyr's global patent estate includes over 220 issued or allowed patents owned or exclusively licensed by aTyr and its Hong Kong subsidiary, Pangu BioPharma Limited, developed over a decade of research and development activities. This patent estate highlights aTyr's unique leadership position in this emerging area of biology. These patents encompassed important new therapeutic modalities which underpin the broad pipeline of novel therapeutics in active development at the company.

About ATYR1923

aTyr is developing ATYR1923 as a potential therapeutic for patients with inflammatory lung diseases. ATYR1923, a fusion protein comprised of the immuno-modulatory domain of histidyl tRNA synthetase fused to the FC region of a human antibody, is a selective modulator of Neuropilin-2 that downregulates the innate and adaptive immune response in inflammatory disease states. aTyr recently completed enrollment in a proof-of-concept Phase 1b/2a trial evaluating ATYR1923 in patients with pulmonary sarcoidosis. This Phase 1b/2a study is a multi-ascending dose, placebo-controlled, first-in-patient study of ATYR1923 that has been designed to evaluate the safety, tolerability, steroid sparing effect, immunogenicity and pharmacokinetic profile of multiple doses of ATYR1923. Proof-of-mechanism for ATYR1923 was recently established in a Phase 2 clinical trial in COVID-19 patients with severe respiratory complications, which demonstrated that ATYR1923 reduced inflammatory cytokine levels in patients consistent with preclinical models, including cytokines that are implicated in sarcoidosis and other forms of interstitial lung disease.

About aTyr

aTyr is a biotherapeutics company engaged in the discovery and development of innovative medicines based on novel biological pathways. aTyr's research and development efforts are concentrated on a newly discovered area of biology, the extracellular functionality and signaling pathways of tRNA synthetases. aTyr has built a global intellectual property estate directed to a potential pipeline of protein compositions derived from 20 tRNA synthetase genes and their extracellular targets. aTyr's primary focus is ATYR1923, a clinical-stage product candidate which binds to the Neuropilin-2 receptor and is designed to down-regulate immune engagement in inflammatory lung diseases. 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 Securities Litigation Reform Act of 1995. 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 include statements regarding potential therapeutic benefits and applications of ATYR1923; timelines and plans with respect to certain development activities (such as the timing of data from clinical trials); 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 or strategies 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 the COVID-19 pandemic, risks associated with the discovery, development and regulation of our product candidates, the risk that we or our 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 existing 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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