



aTyr Pharma to Present Poster Highlighting Research Approach for Identifying Receptor Targets for Extracellular tRNA Synthetases

January 22, 2021

Poster to be presented at the 2021 Society for Laboratory Automation and Screening Digital International Conference and Exhibition.

Research approach led to the identification of target receptors for two tRNA synthetases and further validates company's biology platform.

SAN DIEGO, Jan. 22, 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 it will present a poster and audio presentation at the upcoming [Society for Laboratory Automation and Screening Digital International Conference and Exhibition](#) (SLAS) to be held virtually January 25-27, 2021. The abstract and poster are available on the SLAS website.

The poster describes a mass spectrometry proteomics-based approach to identify target receptors for two distinct extracellular tRNA synthetase fragments. The utilization of this workflow, which included recombinant protein expression, flow cytometry, and receptor screening in living cells using the ligand-receptor capture TriCEPS technology, resulted in the identification of receptor targets for fragments of the tRNA synthetases AARS and DARS as well as insights into their potential biological activity in immunology, cancer and fibrosis. Furthermore, this approach can be applied more broadly to identify receptor targets of extracellular proteins and other ligands such as peptides, antibodies or viruses.

Details of the abstract and poster presentation are as follows:

Title: A mass spectrometry proteomics-based approach to identify target receptors for novel extracellular tRNA synthetase fragments

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Track: Assay Development and Screening

Date: January 25 – 27, 2021

The poster is also available on the aTyr website.

"We are pleased to present our findings utilizing a novel approach for identifying receptor targets of extracellular proteins, and for the first time provide insight into the potential biological function of extracellular tRNA synthetases AARS and DARS," said Sanjay S. Shukla, M.D., M.S., President and Chief Executive Officer of aTyr. "These findings further validate the relevance of our tRNA synthetase biology platform to important disease pathways and demonstrate its ability to generate new drug targets. Identifying receptor targets for these two tRNA synthetases, which are relevant to immunology, cancer and fibrosis, will help guide the development of potential new therapies in these areas of high unmet need."

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 further research and development activities related to, and potential utility of, the newly identified receptor targets, the potential therapeutic benefits and applications of our current and future product candidates; 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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