aTyr Pharma to Present Posters Highlighting Importance of Neuropilin-2 in Immune Regulation at Keystone Symposia on Myeloid Cell Diversity

January 29, 2024

Findings further demonstrate that efzofitimod modulates myeloid cells via the neuropilin-2 (NRP2) receptor to promote a unique anti-inflammatory mechanism.

Role of NRP2 in immune system validated by activity of NRP2 blocking antibody in preclinical models.

SAN DIEGO, Jan. 29, 2024 (GLOBE NEWSWIRE) -- aTyr Pharma, Inc. (Nasdaq: LIFE), a clinical stage biotechnology company engaged in the discovery and development of first-in-class medicines from its proprietary tRNA synthetase platform, today announced that the company will present two posters at the Keystone Symposia on Myeloid Cell Diversity: From Fundamental Biology to Disease States, which is being held January 28 – 31, 2024, in Banff, Alberta, Canada.

"The findings presented in these posters contribute to the growing body of evidence regarding the role of NRP2 in the immune response," said Sanjay S. Shukla, M.D., M.S., President and Chief Executive Officer of aTyr. "Notably, this data enhances our mechanistic understanding of the way in which efzofitimod is providing the anti-inflammatory benefits seen in patients with pulmonary sarcoidosis, a major form of interstitial lung disease (ILD), and suggest that this therapy may represent a breakthrough in the treatment of diseases such as ILD where myeloid cells play a critical role in pathogenesis and disease progression."

Details of the presentations appear below. The posters will be available on the aTyr website once presented.

Title: Demonstration of an Isoform-Specific Anti-inflammatory Role for Neuropilin-2 Through a Novel Interaction with the Chemokine Ligand 21
Authors: Luke G. Burman, Christoph Burkart, Clara Polizzi, Max Pastenes, Yeeting E. Chong, Cole Link, Kaitlyn Rauch, Ann Menefee, Yang Qing, Gertrud Malene Hjortø, Leslie A. Nangle. aTyr Pharma, San Diego; Faculty of Health and Medical Sciences, Copenhagen, Denmark.
Poster Number: 1012
Session: Poster Session 1
Date and Time: Monday, January 29, 2024, at 7:30 p.m. PST

Title: Efzofitimod Promotes Macrophages with Anti-inflammatory Profile via Neuropilin-2 Receptor
Authors: David Siefker, Zhiwen Xu, Annie Wang, Sofia Klopp-Savino, Kaitlyn Rauch, Lauren Guy, Sheeraz Un Nazir, Yeeting E. Chong, Samikshan Dutta, Ryan Adams, Kaustubh Datta, Leslie Nangle. aTyr Pharma, San Diego; University of Nebraska Medical Center, Omaha.
Poster Number: 2027
Session: Poster Session 2
Date and Time: Tuesday, January 30, 2024, at 6:30 p.m. PST

About Efzofitimod

Efzofitimod is a first-in-class 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. aTyr is currently investigating efzofitimod in the global Phase 3 EFZO-FIT™ study in patients with pulmonary sarcoidosis, a major form of ILD, and in the Phase 2 EFZO-CONNECT™ study in patients with systemic sclerosis (SSc, or scleroderma)-related 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 first-in-class 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 "believes," "can," "expects," "intends," "may," "plans," "potential," "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 role of NRP2 in the immune response and the potential of efzofitimod to be a breakthrough in the treatment of pulmonary sarcoidosis and other forms of ILD. 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 efzofitimod, the risk that we or our partners may cease or delay preclinical or clinical development activities for efzofitimod 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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Source: aTyr Pharma, Inc.