

Abzyme Awarded National Institutes of Health SBIR Grant for Selecting Immune Escape Protein Variants

Royersford, PA, June 05, 2023. Biologics have been widely accepted for treatment of a variety of human diseases, including cancer, arthritis and infectious diseases. Many therapeutic biologics are derived from non-human organisms and consequently, administration of the foreign proteins into humans will cause immune reactions from the human host. One consequence of these reactions is that the host will produce anti-drug antibodies (ADA) to neutralize the administered biologics, thus reducing its therapeutic efficacy, preventing repeated use and causing other adverse effects. Abzyme is addressing the problem of immunogenicity to biologics by developing a system to generate glycosylated protein mutants and a method for selecting immune-escaping but functionally active variants.

Abzyme and collaborator, Dr. Naomi Schlesinger, gout disease expert of the University of Utah, have been awarded a \$299,999 Small Business Innovation Research (SBIR) Phase I Grant by the National Institute of Allergy and Infectious Diseases (NIAID). The SBIR grant project entitled "Novel immune-escape uricase for treatment of hyperuricemia" is aimed at developing glycosylated uricases capable of escaping the host immune system for treatment of hyperuricemia.

The NIH SBIR program is a highly competitive program for small businesses that seek to commercialize innovative technologies with biomedical applications. The program helps small businesses participate in federal research and development, develop life-saving technologies, and create jobs.

"We are extremely pleased to be recognized with this highly competitive award from the NIH SBIR program" said Dr. Tran, CEO and co-founder of Abzyme. "This SBIR grant plays a vital role in expanding our antibody development and engineering capabilities. We are grateful for the continued support towards our mission of developing therapeutic antibodies".

About Abzyme Therapeutics:

Abzyme Therapeutics is a biopharmaceutical company focused on antibody discovery and engineering using proprietary antibody generation platforms. Unique to Abzyme is its proprietary and highly engineered eukaryotic *in vitro* antibody discovery/optimization platform based on yeast display self-diversifying libraries, rapid target-directed antibody affinity maturation, in combination with a FACS single-cell sorting approach to identify desired antibodies. Abzyme's modular antibody discovery platform incorporates a real-time screening ability to select for key properties, such as epitopic diversity, binding affinity, expressibility, solubility, developability, broad-reactivity and target-specificity. The platforms have been successfully applied to develop antibodies with defined attributes as well as to re-engineer existing antibodies to be conditionally active. Abzyme offers fee-for-services in antibody discovery and engineering, including conditionally active antibodies.

Today, the Company has over 60 proprietary and partnered programs in development in therapeutic and diagnostic areas, including infectious diseases, immuno-oncology, ophthalmology, inflammation and central nervous system disorders.

For further information, please contact:

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