

## **Abzyme Awarded NIH Grant For BBB-Penetrating Bispecific Antibody Engineering**

**Royersford, PA, October 24, 2017.** Abzyme Therapeutics LLC, a biotech company focused on developing antibodies for diagnostic and therapeutic application, has been awarded a \$236,646 Small Business Innovation Research (SBIR) Phase I Grant by the National Institute of Neurological Disorders and Stroke for modular antibody engineering to overcome the blood brain barrier (BBB).

The National Institutes of Health (NIH) SBIR program is a highly competitive program for small businesses that are seeking to commercialize innovative technologies with biomedical applications. This highly competitive program helps small businesses participate in federal research and development, develop life-saving technologies, and create jobs.

Biologics such as antibodies or enzymes are an emerging class of medicines with great potential to treat various diseases including central nervous system (CNS) disorders. However, following intravenous administration of biologics, the blood-brain barrier prevents brain uptake and hence, their CNS therapeutic potential.

Abzyme has developed a patent-pending Abz2 technology for reformatting traditional antibodies to create IgG-like bispecific antibodies. In contrast to other bispecific antibody formats, Abz2 IgG-like molecule is easy to produce with excellent biophysical properties. Using this technology, traditional antibodies in combination with anti-transferrin receptor (TfR) and anti-leptin receptor (LepR) modular antibodies will be converted into bispecific antibodies that can overcome the BBB via receptor-mediated transcytosis and binding its specific target in the brain.

The NIH review panel has thoroughly evaluated this proposal awarding the application an Excellent Phase I SBIR application rating. According to NIH review panel, this innovative technology is expected to have high potential impact on neurological healthcare outcomes, leading to accelerated generation of BBB penetrating antibodies.

“We are very grateful for the continued support towards our mission of developing therapeutic antibodies” said Dr. Tran, CEO and co-founder of Abzyme. “We are very excited with our Abz2 technology and its potential. This SBIR grant funding will help us to advance this technology in developing BBB-penetrating antibodies for treatment of various CNS disorders”.

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