

# **MICROBIOTIX, INC., RECEIVES SBIR PHASE I GRANT TO DEVELOP NOVEL ANTIBIOTICS FOR THERAPY AGAINST *P. AERUGINOSA*.**

MicroBiotiX Inc, a privately held biotechnology company, announced today that it was granted a Phase I Small Business Innovation Research (SBIR) grant from the National Institutes of Health/NIAID. The SBIR phase I grant entitled, "Type III Secretion Inhibitors for Anti-Infective Therapy", provides two years of support for the research/development of specific inhibitors of type III secretion in *Pseudomonas aeruginosa*.

The type III secretion system (TTSS), dedicated to the secretion of protein toxins ("effectors") and their translocation into the cytoplasm of human cells, has been validated as a clinically important target in *P. aeruginosa*. Drugs targeting TTSS may be used in combination with bactericidal antibiotics in immune-compromised patients, and they may be useful on their own in patients with competent immune systems or for prophylactic application.

*P. aeruginosa* is a common and extremely virulent cause of serious infections in immune-compromised/suppressed patients (e.g., HIV and cancer), cystic fibrosis patients, and those on mechanical ventilation or with burn wounds. Frequent antibiotic resistance and the highly virulent nature of *P. aeruginosa* make it deadlier than most other bacterial species. New chemical classes of antibiotics acting on novel accessible targets are crucial for continued effective therapy against *P. aeruginosa* because such drugs will not be subject to existing resistance mechanisms.

We will accomplish the following specific aims: (1) Develop a high-throughput secreted reporter screen for inhibitors of *P. aeruginosa* TTSS; (2) Develop a transcriptional reporter secondary assay for inhibitors of *P. aeruginosa* TTSS; (3) Screen a diverse compound library to identify and validate TTSS inhibitors; and (4) Prioritize validated screening hits for in vitro potency, mechanism, spectrum, and selectivity.

Donald T. Moir, Ph.D., CSO, will serve as the Principal Investigator of the grant.

## **About MicroBiotiX**

**Founded in 1998, MicroBiotiX, Inc. is a product-focused biopharmaceutical company engaged in the research and development of novel small molecule, anti-infective drugs that address commercially significant medical markets. The company currently has four novel compound series in research and development. MicroBiotiX currently has in development MBX 500, the first antibiotic that targets the DNA polymerase of Gram-positive bacteria, including drug resistant strains. The company further has an active research program to discover a broad-spectrum antibiotic that targets the DNA polymerase of drug-resistant Gram-positive and Gram-negative bacteria. Additionally, MicroBiotiX has an active biodefense program, focused on novel therapeutics for *Bacillus anthracis* and *Burkholderia pseudomallei*, and is also actively involved in the discovery of inhibitors of bacterial biofilm formation and antibiotic resistance. More information can be found on the company's web site, [www.MicroBiotiX.com](http://www.MicroBiotiX.com).**