



REACTION BIOLOGY RECEIVES NIH GRANT AWARD FOR EPIGENETIC DATABASE

Malvern PA, July 7, 2014--Reaction Biology Corporation ("RBC") announced today that it has been awarded a Phase I SBIR grant from the National Center for Advancing Translational Sciences to create a database of epigenetic drug interactions. The grant will help fund an examination of the interaction of over 1400 FDA-Approved drugs and drug-like compounds with over 30 epigenetic modifying enzymes. The project will begin immediately at RBC's lab facilities, and will last for one year.

Epigenetic enzymes control the mechanics of genetic expression, acting as "on" and "off" switches for the human genome. Malfunctions of these enzymes are implicated in a number of cancer, immunological, and neurodegenerative conditions. Understanding these mechanisms can explain why one person with a genetic disposition to a certain type of cancer may become sick while another with the same genetic marker may stay healthy.

The project will consist of taking a library of 1400 compounds, including almost every FDA approved drug, and assaying it against over thirty epigenetic enzymes, a total of over 42,000 individual experiments. The resulting data will generate a roadmap researchers can use in creating new drug compounds to combat conditions with known epigenetic mediators. In addition, the data may shed new light on the mechanisms of side effects of known drugs, and possibly give direction for "repurposing" existing drugs for new treatments.

Dr. Haiching Ma, Chief Science Officer of RBC and Principal Investigator of the study, said, "This project will represent the first systematic look at how current pharmaceuticals affect epigenetic function. The potential exists for some exciting developments as a result. We're very pleased that NCATS saw the same potential in this project as we did."

Based in Malvern, PA, RBC specializes in providing high quality biochemical enzyme assay data, using ultra-low volumes and proprietary methods. RBC has provided its services to over 550 customers worldwide, including large pharmaceutical, biotech, government, and academic labs. RBC's HotSpotSM platform is a widely used service for providing high quality kinase and epigenetic screening data worldwide. The company also manufactures and sells recombinant human epigenetic proteins for research services.

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