

FACULTY DEVELOPMENT ENDOWMENT FUNDS

Nathan Deutsch Development Fund

Award Date: Fall 2022

Proposal Title: Presentations on New Multiple Testing Procedures at FDA

Principal Investigator: Hong Zhou

College of Sciences and Mathematics,

Department of Mathematics and Statistics

ABSTRACT

Dr. Hong Zhou has been focusing on the statistical theory of multiple comparisons or multiple testing procedures for the past seven years, and developed three new methods: the generalized Holm procedure and the data-driven fallback procedure, and the covering principle method. The new methods not only can show more significant results, but it can also meet FDA regulatory requirements. He would like to present my researches at FDA to promote new methods for the industrial use.

Currently, a Shiny web application is in the development, which makes it easier for users to build the objective-tailored multiple testing procedure by a smart phone or a tablet with a web browser without learning computer software languages.