

## **W0161**

**Evaluating and Determining Precision and Accuracy for Nanoliter Volumes of Viscous Solutions on an Automated Liquid Handling Instrument.** Niki Popp, Tim Hegeman, Joan Stevens, Kirby Reed, Marketing, Gilson, Inc., 3000 W. Beltline Hwy., Box 620027, Madison, WI 53562 USA.

The thrust in today's research is to decrease scale in order to complete a greater number of assays in a given amount of time and also to gather the most information in the least amount of time and area. Not only does this lead to a higher throughput, but it also aids in bringing new drugs to market. Micro scale research is not trivial, especially in regard to the dispensing of nanoliter volumes of viscous solutions and reagents with accuracy and precision. It is important to determine how well a small volume dispensing robot can accommodate solutions of varying viscosity, composition and concentration. This application will demonstrate an evaluation procedure that will determine precision and accuracy for a series of viscous solutions dispensed in the nanoliter range via an automated liquid handler that employs non-contact solenoids for liquid dispensing.