

THE COLLEGE OF SCIENCES AND MATHEMATICS &
THE R. W. YEAGY COLLOQUIUM PRESENT:

Going With the Flow: Statistical Considerations in Cell Composition Analysis

By

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Wednesday, April 26th @3:30 PM

Math Building 357

Flow cytometry (FCM) is a single cell technology that is routinely applied to quantify and evaluate cell populations present in biological samples. In a typical FCM study, thousands of cells are used to determine the proportion of important cell subpopulations and the difference in the proportions between diseased groups or drug treatments is often hypothesized. The process of identifying cell populations has been rigorously explored; however, the statistical analysis of data derived from these processes has not received much attention. This presentation will introduce the general process of an FCM experiment, illustrate some of the distributional properties exhibited by FCM derived data, and summarize an alternative modeling and testing procedure.