

Statistics GIDP Colloquium

Monday, September 14, 2009

12:00, Presidio Room, Student Union Memorial Center

Speaker: Dean Billheimer, Statistics Consulting Laboratory and Department of Agricultural & Biosystems Engineering, University of Arizona

Title: Developing Measurement to Assess Protein Biomarkers

Abstract: A measurement method known as stable-isotope dilution multiple-reaction monitoring (SID MRM) is the "gold standard" for proteomics biomarker screening studies. Because SID MRM relies on isotope-labeled synthetic peptides, its use is time- and cost-prohibitive for most studies. I explore the use of "label-free" MRM methods for proteomics screening, and compare their performance with SID MRM. Along the way, we'll see that measurement and normalization are foundational issues in modern biomedical research, but are generally ignored in bio/statistics education (and research!). This project is in its initial stages, and the presentation will be largely accessible to students (and faculty) with knowledge of linear regression and MS level mathematical statistics.

Light refreshments will be served. Feel free to bring your lunch.