

**Department of Epidemiology and Biostatistics
Biostatistics Seminar**

Thursday, October 3, 2013

11:15am-12:15pm -- WG73

Bring your own lunch

Water and light refreshments (compliments of some faculty) will be served

“A robust method for identifying differential miRNAs in breast cancer”

Dr. Sanjoy Sinha, Associate Professor of Statistics
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Abstract: In this talk, I will discuss a robust approach to identifying differential miRNA signatures in cancerous cells. The proposed approach, developed in the framework of the M-estimation, provides protection against potential outliers in the miRNA expression data. As the study involves multiple comparisons with a large number of miRNAs, robust multiple tests are considered at a given level of false discovery rate (FDR). The p-values of the tests used for calculating the FDRs are obtained based on the permutation method. The empirical properties of the proposed tests will be studied based on simulations. An application will be presented using miRNA expression data from a breast cancer study.