

ATTENTION

Medical Students, Residents, Fellows, Graduate Students

Course Announcement

FPM237: Microarray Technology and Informatics

Winter Quarter 2009, Thursdays, 3:00 – 5:00 pm

Location: Leichtag Building Room 205 on

School of Medicine Campus

<http://www.microarrays.ucsd.edu/W09FPM237/>

This course, offered by the **Department of Family and Preventive Medicine**, is intended for those who are interested in an introduction to DNA microarray technology and methods to analyze gene expression data. The course is worth 1 unit and grading is “satisfactory/unsatisfactory” only.

Why Register?

The confluence of biotechnology, computer sciences and the completion of genome sequencing efforts for several organisms have resulted in revolutionary changes in how biomedical research can be done. It is now possible to synthesize high-density arrays of specified DNA sequences that, for example, include every known gene of an organism on a single glass slide or chip. This technology allows several types of questions to be asked at a qualitatively different scale than has been possible previously, and is currently having a dramatic impact on the pace of discovery in the fields of biomedical research.

Course Topics include:

- Microarray Expression Platforms & Formats
- Measuring Expression & Image Processing Analysis
- Statistical Issues in Experimental Design
- Data Pre-processing & Normalization
- Methods to Determine Differential Gene Expression
- Clustering & Classification Techniques
- Microarray Applications in the Health Sciences
- Next Gen Sequencing

First class will meet Thursday, January 8, 2009 in Leichtag 205