

**BIOM-252. Human genetics and genomics: Underpinnings of human disease
and disease susceptibility (3 units)
Spring Quarter 2009
Frank Furnari**

April 1- June 8, 2009
Mon and Wed, 10-11:30am CMM-E Rm 2001
Limited to 15 students

ABSTRACT:

This course will meet twice a week for 1-1/2 hours and will focus on genes and genetic pathways underlying human disease. Lectures will take advantage of the foundations established in BIOM 252 spring quarter 2008 and BIOM 200 in which genome-wide methods were presented as tools to solve biomedical problems. There will be 9 (nine) 2-day block topics consisting of didactic lectures by faculty (Day 1) and student presentation of assigned papers (Day 2).

Grading will be P/F or S/U, and based on student attendance and active participation in literature discussions.

SCHEDULE BLOCKS:

9 (nine) 2-day blocks, for 9 faculty members.

Day 1: On the first day, the faculty member will lecture on the block topic (PowerPoint or other forms of interaction) for 90 minutes (10--11:30am).

Day 2: On the second day (10--11:30am), students will present journal articles selected by the faculty for that block topic. Papers may be of the faculty member's own research, recent articles felt to be pertinent and interesting, or classic papers.

| <u>Block:</u> | <u>Day 1</u> | <u>Faculty member</u> | <u>Day 2</u> | <u>Faculty member</u> |
|---------------|---------------------|--------------------------|---------------------|-----------------------|
| 1 | Wed April 1 | Dan O'Connor | <i>Mon April 6</i> | Dan O'Connor |
| 2 | <i>Wed April 8</i> | Kang Zhang | Mon April 13 | Kang Zhang |
| 3 | <i>Wed April 15</i> | <i>Ted Friedmann</i> | <i>Mon April 20</i> | <i>Ted Friedmann</i> |
| 4 | <i>Wed April 22</i> | <i>Gene Yeo</i> | <i>Mon April 27</i> | <i>Gene Yeo</i> |
| 5 | Wed April 29 | Richard Kolodner | Mon May 4 | Richard Kolodner |
| 6 | <i>Wed May 6</i> | <i>Karen Arden</i> | <i>Mon May 11</i> | <i>Karen Arden</i> |
| - | Wed May 13 | no class (BMS retreat) | | |
| 7 | <i>Mon May 18</i> | <i>Fred Levine</i> | <i>Wed May 20</i> | <i>Fred Levine</i> |
| - | Mon May 25 | no class (Memeorial Day) | | |
| 8 | Wed May 27 | Ben Yu | Mon June 1 | Ben Yu |
| 9 | Wed June 3 | Frank Furnari | Mon June 8 | Frank Furnari |

BLOCK LEADERS (9 blocks):

Dan O'Connor, MD (Nephrology/Hypertension). doconnor@ucsd.edu
Genetic Variation Influence on Complex Traits

Kang Zhang, MD, PhD (Ophthalmology). k5zhang@ucsd.edu
Genetics of macular degeneration

Ted Friedmann, MD (Pediatrics) tfriedmann@ucsd.edu
TBA

Gene Yeo, PhD (CMM) ewyeo@ucsd.edu
RNA Binding Proteins and their Role in Genetic Disorders

Richard Kolodner, PhD (Medicine) rkolodner@ucsd.edu
TBA

Karen Arden, PhD (Medicine) karden@ucsd.edu
Epigenetics in Human Health and Disease

Fred Levine, MD, PhD (Pediatrics) flevine@ucsd.edu,
flevine@burnham.org
Diabetes: Pathogenesis, Genetics, and Approaches to Treatment

Benjamin Yu, MD, PhD (Medicine) byu@ucsd.edu
Genetics of Skin Disorders

Frank Furnari, PhD (Medicine) ffurnari@ucsd.edu
The Cancer Genome Atlas and the Genetics of Glioblastoma