

**Drugs and Disease:
The pathophysiological and molecular basis of disease and drug therapy
BIOM 255, Winter 2009**

Tuesday and Thursday, 8:30 - 10:00am, CMME 2047

Course Director: Paul Insel

Course objectives: To impart and apply the principles of physiology and pharmacology by examining normal functions and pathophysiological changes in tissues and organ systems affected by specific diseases. The course will explore normal and dysregulated molecular mechanisms that control function, consider how they translate into therapeutic interventions and identify questions regarding the etiology of human diseases and opportunities for novel therapeutic approaches.

Required reading: Principles of Pharmacology: The Pathophysiologic Basis of Drug Therapy, D.E. Golan, et al., Lippincott, Williams & Wilkins, 2nd Edition (2007)

Inflammatory Disease: Asthma, Arthritis and Their Therapeutics

Tony Yaksh, Block Leader

1. Jan 6: Tony Yaksh
2. Jan 8: Timothy Bigby
3. Jan 13: Gary Firestein
4. Jan 15: Tony Yaksh, et al. – Class Discussion (papers)

Endocrine Disease: Diabetes, Obesity and Metabolic Syndrome

Nick Webster, Block Leader

5. Jan 20: Nick Webster
6. Jan 22: Nick Webster
7. Jan 27: Nai-Wen Chi
8. Jan 29: Nick Webster et al. - Class Discussion (papers)

Heart Disease: Heart Failure and Its Treatment

Francisco Villarreal, Block Leader

9. Feb 3: Larry Brunton
10. Feb 5: Francisco Villarreal
11. Feb 10: Francisco Villarreal
12. Feb 12: Francisco Villarreal, et al. - Class Discussion (papers)

Vascular Disease: Hypertension and Atherosclerosis: Mechanisms and Drugs

Jason Yuan, Block Leader

13. Feb 17: Wulf Palinski
14. Feb 19: Jason Yuan
15. Feb 24: To Be Determined
16. Feb 26: Jason Yuan, et al. - Class Discussion (papers)

Cancer: Carcinogens, Oncogenes and Chemotherapy

Hyam Leffert, Block Leader

17. Mar 3: Hyam Leffert
18. Mar 5: Gordon Gill
19. Mar 10: Steve Howell
20. Mar 12: Hyam Leffert et al. - Class Discussion (papers)