Signal Transduction (CHM 555)

Fall 2007
6-9 PM, Tuesdays

Professor Sitaramayya Ari
Office: 423 DHE
Phone: 248-270-2399
Office Hours: By appointment
E-mail: ari@oakland.edu

Course Description: Literature-based consideration of biochemical communication that occurs when extracellular signals interact with cell receptors and activate complex intracellular signaling pathways. Students will present, in a journal club format, published research papers in different areas of signal transduction. Emphasis will be placed on learning to evaluate and critique published work, organize results in writing a research paper, and recognize gaps in existing knowledge.


Some electronic resources for published research:
http://library.oakland.edu/articles/
http://scholar.google.com/schhp?tab=ws

Grading: Overall grading will be based on 200 points allocated to the following components:

Journal club paper  100 points
   Presentation  70 points
   Participation  30 points
Discussion of book chapter  100 points
Leading Discussion  80 points
Participation      20 points

**Class participation:** Students will be expected to contribute substantially to in-class discussions. Each student will be responsible to lead discussion (journal club presentation) on an assigned published research paper, evaluate the presentations by other students and actively participate in the discussions, lead the discussion on an assigned chapter from the textbook, and participate in and evaluate the discussions.

**Anticipated schedule:**

**September 4**
Introduction to cellular signaling
Textbook chapters 1-3

**September 11**
Textbook chapter 5

**September 18**
Textbook chapter 7

**September 25**
Textbook chapter 4

**October 2**
Textbook chapter 15
October 9
Textbook chapter 6

October 16
Textbook chapter 9

October 23
Journal club: Apiradee Sriwijitkamol et al., Diabetes, 56: 836-848, 2007
Textbook chapter 8

October 30
Textbook chapter 10

November 6
Textbook chapter 11

November 13
Journal club: Saradhadevi Varadharaj et al., Cell Signalling, 18: 1396-1407, 2006
Textbook chapter 12

November 20
Journal club: Sophie Pattingre et al., Cell, 122: 927-939, 2005
Textbook chapter 13

November 27
Journal club: Beate Fledler et al., JBC, 281: 32831-32840, 2006
Textbook chapter 14
December 4
Textbook chapter 16

December 11
Textbook chapter 17

Academic conduct: Please read Academic conduct of graduate students on page 24 of 2005-2007 Graduate Catalog. Plagiarism will not be tolerated.

Classroom behavior: Students must be in class on time. Those who arrive late, without prior notice, will lose points depending upon the class assignment. Cell phones must be turned off in the classroom at all times. While in class students must not engage in work unrelated to this course.