Pathology 575: Frontiers in Pathology
Cellular Homeostasis Research Lecture Series
Spring 2007

Class No.: 046-40865D
Units: 2 units per spring, maximum up to 8 units
Day: Thursday
Time: 12:00 – 1:30 p.m.
NEW Location: McKibben Hall, Room 149

Course Coordinators:

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Course Description: Weekly research lectures by leading investigators in the field of cellular homeostasis.

Student Attendance: The student attendance will be recorded for all seminars (Thursdays, noon - 1:30 p.m.). The last class will be Thursday, April 26, 2007. Attendance to a majority of the seminars is required.

Student Comprehension: The student will be required to understand the hypothesis, results obtained and interpretation of the findings presented by each lecturer. Pertinent literature will be available on Blackboard (https://totale.usc.edu) one week prior to each lecture. Immediately after each lecture, the students will have a separate Q&A discussion session with the speaker to help promote the understanding of the speaker's research from both scientific and philosophical view points. Following the lecture series, the student will prepare a 20-min summary presentation on an assigned lecture topic. This presentation session will take place in the last 4 classes. Student's presentation will be held in MMR 408 (conference room). In addition, the student is required to prepare a term paper on the topic covered by the selected speaker.

Student Evaluation: Each student will be evaluated by: 1.) seminar attendance and participation in discussions (10%); 2.) a 20-min summary presentation on the selected paper (40%) and 3.) a term paper assignment (50%).

Student Presentation: Each presentation should be 20 min either via PowerPoint or overhead, summarizing: 1.) background; 2.) a central hypothesis; 3.) key findings presented during a lecture; 4.) other studies related to the lecture; and 5.) interpretation and conclusions including YOUR OWN THOUGHTS AND OPINIONS. Each presentation will be followed by a 10 min question/discussion session. If you choose to do a PowerPoint presentation, email the file to Rosy Macias at rmacias@usc.edu, bring a CD or USB memory stick (no Zips please) to her office (MMR 412) by 11:00 a.m. of assigned Thursday (assigned days will be handed out later in the course).

Term Paper: The term paper consists of a discussion on the assigned lecture topic. The paper should be 8-10 pages in length, double-spaced, and with the following four requirements:

1.) List and discuss the most critical findings presented in the seminar
2.) Discuss how these findings relate to human health and diseases
3.) Include references (all authors and full titles)
4.) Include half to one page summary of your essay

The term paper is due in Dr. Tsukamoto's office (MMR 414) on or before Friday, May 4, 2007.

Grading: Letter grading (A-C) will be given based on the above criteria.

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January 11	Student Orientation
January 18	Kenneth S. Zaret, Ph.D., Fox Chase Cancer Center Signals that initiate liver and pancreas development (Moderator: Kasper Wang, M.D./Hide Tsukamoto, D.V.M.; Ph.D.)
January 25	Mani Pashmforoush, M.D., Ph.D., Keck School of Medicine of USC Transcriptional pathways for cardiac arrhythimias (Moderator: Vijay Kalra, PhD)
February 1	Randal J. Kaufman, Ph.D., University of Michigan Medical Center The unfolded protein response: A decision of life vs. death. (Moderator: Amy Lee, Ph.D.)
February 8	John F. Engelhardt, Ph.D., University of Iowa, College of Medicine Redox-dependent endosomal singaling by NADPH oxidase toll (Moderator: Ebi Zandi, Ph.D.)
February 15	Michael Gale Jr.; Ph.D. University of Texas Southwestern Medical Center Triggering and control of innate defenses against hepatitis C virus (Moderator: James Ou, Ph.D.)
February 22	Suzanne Pfeffer, Ph.D. Stanford University School of Medicine Regulation of receptor trafficking by Rab GTPases (Moderator: Vijay Kalra, Ph.D.)
March 1	Stephen A. Duncan, D. Phil, Medical College of Wisconsin Control of liver and heart development by GATA4 and GATA6 (Moderator: Kasper Wang, M.D.)
March 8	Vishva M. Dixit, M.D., Genetech The Inflammasome: a dynamic caspase activating apparatus (Moderator: Vijay Kalra, Ph.D.)
March 15	Spring Break (March 12–17, 2007)
March 22	Soichi Kojima, Ph.D., Molecular Cell Pathology Research Unit, Japan Detection and prevention of liver diseases by targeting TGF-beta activation reaction and transglutaminase-induced hepatic cell death (Moderator: Hide Tsukamoto, Ph.D.)
March 29	Carl P. Blobel, M.D., Ph.D. ADAMs: key molecules in EGF-receptor signaling and prostate cancer (Moderator: Yuan-Ping Han, Ph.D.)
April 5, 12, 19 & 26	Student presentations (MMR 408 – conference room)