Course: Wistar Advanced Cancer Biology Course: Cancer Pathways
Location: The Wistar Institute, HKA room, 3601 Spruce St
Time: Fall Semester 2014, Thursdays 2 - 4:00 pm

Course Co-Directors -
Emmanuel Skordalakes, Room 321C, The Wistar Institute, skorda@wistar.org
Jessie Villanueva, Room 325A, The Wistar Institute, jvillanueva@wistar.org

The course will cover basic pathways and mechanisms of cancer development and progression as well as current approaches for the identification of therapies for the treatment of cancer. Each session will consist of a one-hour lecture by one of the Wistar investigators listed below followed by one student presentation 30 minutes each on a recently published manuscript. The student presentations will be related to the topic presented and selected by the PI lecturing that day. These presentations will be assigned to the students at the beginning of the course and will serve as part of the final grade. Students will also be required to take and pass a mid term and final exams consisting of short essays or questions related to the material taught during the course. This approach is designed to provide students with an integrated learning platform combining up-to-date basic mechanistic understanding of cancer pathways with more translational, disease-relevant topics in cancer therapy and molecular drug discovery.

Prerequisites: Senior undergraduate or graduate level biochemistry and molecular biology

Grading: Class Participation 5%  
Mid term exam 25%  
Student Presentation 20%  
Final Exam 50%

Lectures:

September
04: Cancer metabolism  Dario Altieri
11: Oncogenes and tumor suppressor genes  Maureen Murphy
18: Wnt pathways in cancer  Ashani Weeraratna
25: Viral tumorigenesis  Paul Lieberman

October
02: Gene expression signatures in cancer  Louise Showe
09: Ovarian Cancer  Rugang Zhang
16: Basic immunity and cancer recognition  Andrew Caton
23: Mid Term Exam  HKA/B
30: Small molecule inhibition of oncogenic kinases  Ronen Marmorstein

November
06: Oncogenic signaling by the Ras/Raf pathway  Jessie Villanueva
13: Anti-cancer immunotherapies  Jose Conejo-Garcia
20: Antigen presentation in cancer  Dmitry Gabrilovich
27: No Class  N/A

December
04: Transcriptional and epigenetic control of the metastatic phenotype  Frank Rauscher
11: Telomerase and cancer  Skordalakes Emmanuel
18: Final Exam  HKA/B