CAMB 704: Stress Responses and Metabolism in Cancer
Spring Term 2015
Course co-Directors: Celeste Simon, Katy Wellen and Jim Alwine
The course will meet in 401 BRB, Thursdays 1-3PM

Metabolomics methods lectures
Jan 15   Lecture: NMR based metabolomics   Aalim Weljie
Jan 22   Lecture: MS based metabolomics   Aalim Weljie
Jan 29   Lecture: NMR based metabolic flux   Tony Mancuso
Feb 5    Lecture: MS based metabolic flux   Tony Mancuso

Student Presentations
Feb 12   Glucose and Glutamine metabolism   Celeste Simon  Lauren Paolella
Feb 19   MYC regulation of growth and metabolism  Chi Van Dang  Mei Lin
Feb 26   Nuclear functions of metabolic enzymes   Katy Wellen  Christopher Natale
March 5  Oncometabolites/mutations in metabolic enzymes  Martin Carroll  Yangpewei Huang
March 12 Autophagy   Ravi Amaravadi  Seth Rhoades
March 19 ER stress and the unfolded protein response  Costas Koumenis  Danielle Sanchez
March 26 Hypoxia/HIF   Celeste Simon  Ankita Bansal
April 2  Stress and mTOR signaling   Jim Alwine  Steven Zhao
April 9  Sirtuins   Joe Baur  C. Natale, L. Paolella
April 16 Viral effects on stress signaling and metabolism  Jim Alwine  S. Rhoades, D. Sanchez
April 23 ROS and mitochondrial deregulation  Doug Wallace  Y. Huang, S. Zhao
April 30 Metabolism and epigenetics   Katy Wellen  A. Bansal, M. Lin

Presentations: We want you to put together a presentation that integrates the data of the papers, comparing and contrasting the results, the quality of the data and the technologies used. You should not only be a presenter but also a discussion leader, eliciting opinions from the group on the results and whether or not there is agreement with the conclusions. Not all of the data in a paper needs to be presented; and the papers do not have to be presented one after the other. Instead, you should put together a seminar that integrates the important data from all the papers in a way that makes points and builds to a conclusion or a controversy; in other word, in a way that tells a story. The papers assigned can be augmented by a paper or two that you find that will strengthen your presentation, possibly by introducing controversy. As mentioned above you should work with the faculty member assigned to your topic to put together the presentation and discuss any additional papers you may want to discuss. After your presentations, the class will be asked to submit evaluations directly to you. You will also meet with the co-organizers to discuss the presentation.
50% of your grade will be based on your presentations.

Discussion: The success of a seminar course depends on group discussion. Each week you should come to class knowledgeable enough with the material that you could talk about it in detail. You should be ready to ask questions and enter into discussions. If you don’t understand something ask and get a discussion going. Come to class with at least 4 questions prepared from the assigned papers.
50% of your grade will be based on your participation in questioning and discussions.