

CAMB 704:**Stress Responses and Metabolism in Cancer****Fall Term 2020**

Course co-Directors: Celeste Simon, Terence Gade, Zoltan Arany, and Katy Wellen

Canvas: Lyndsey Ann Makinen

The course will meet on Blue Jeans, Thurs 1-3 PM : <https://bluejeans.com/1115438906>

	<i>Metabolomics methods lectures</i>	<i>Lecturer</i>	<i>Directors</i>
Sept 3	Meet and Greet and Lecture: Biochemistry of metabolic enzymes	Ronen Marmorstein	all
Sep 10	Lecture: Isotope tracing and metabolic flux	Anthony Mancuso	TG, ZA

Supplemental lectures on metabolomics by Anthony Mancuso and Aalim Weljie will be posted on Canvas.

	<i>Student Presentations</i>	<i>Directors</i>	<i>Faculty Leader</i>	<i>Student presenters</i>
Sep 17	Mitochondrial Metabolism	ZA, CS	Xiaolu Yang	
Sep 24	Glucose Metabolism	KW, TG	Zachary Schug	
Oct 1	Hypoxia/HIF/MYC	CS, ZA	Celeste Simon	
Oct 8	mTOR signaling and autophagy	TG, CS	Terence Gade	
Oct 15	Organismal Metabolism	KW, ZA	Paul Titchenell	
Oct 22	Integrated Stress Response	CS, TG	Crystal Conn	
Oct 29	Metabolism and epigenetics	KW, TG	Katy Wellen	
Nov 5	IDH mutations	ZA, TG	Martin Carroll	
Nov 12	NAD metabolism	KW, ZA	Joe Baur	
Nov 19	Metals and Metabolism	CS, KW	Donita Brady	
Dec 3	Immunometabolism	CS, TG	Will Bailis	
Dec 10	Microbiome and Metabolism	CS, KW	Chengcheng Jin	
Dec 17	Endothelial Cell Metabolism	ZA, KW	Zoltan Arany	

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. Each week of student presentations will begin with 10-15 minutes (no more!!) introduction by the faculty leader for that day. Not all of the data in a paper needs to be presented. 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 papers you find that will strengthen your presentation, possibly by introducing controversy. 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. Prepare at least **2 questions** from the assigned papers and send to Lyndsey (lmakinen@upenn.edu) by noon the day before class. Lyndsey will compile these questions and distribute them to the directors and presenters.

50% of your grade will be based on your participation in questioning and discussions.