



Please send submissions to Jeff Mason, masonje6@msu.edu

Seminar Calendar

THURSDAY, JULY 31

[BMB Summer Seminar](#)

Taylor Murphy – graduate student

Lab of Amy Ralston

"Elucidating the mechanism by which OCT4 and GATA6 drive primitive endoderm cell fate in preimplantation mouse embryos"

11:00 AM

Announcements

Course Announcements:

BMB 479 is a newly created undergraduate course with a Pass/No Pass grading option. It can be used for teaching special topics or for specialty sections of our traditional offered courses. This fall, due to the COVID situation, BMB 479 will be used to teach an online section of our laboratory course, BMB 470 (formerly BMB 472). This allows for flexibility for those students who may wish to have a fully online lab experience but want to have a Pass/No Pass grade rather than a numeric grade.

PSL950/PHM980 Immune Based Mechanisms of Disease (1 credit)

This one credit seminar course will examine the mechanistic roles of the immune system in diseases, including Cancer, Obesity, Viral and Bacterial Infection. The contribution of key immunoregulatory networks (Toll like receptors, inflammasome, NLRP, NF-kappaB, cytokine storm) and molecular mechanisms significant to inflammation (inflammatory regulators, cytokines, immune evasion, T cell exhaustion, and tolerance) will be covered.

Open Positions:

Givaudan is looking for a senior natural ingredients research scientist in their Cincinnati, Ohio location.

[Job Posting](#)

Preliminary Exam:

Kati Ford (fordkat6@msu.edu), from the TerAvest lab, will be giving her preliminary exam presentation, *Development of an Electroautotroph as a Platform for Carbon Neutral Fuel Production* on July 30th at 1:00 pm. Email Kati for the Zoom link.

Noteworthy News



Alex Dickson has recently been awarded the American Chemical Society (ACS) OpenEye Outstanding Junior Faculty Award. This award is presented to up to four tenure-track junior faculty members in order to provide support for presenting their work at the upcoming ACS National Meeting occurring in San Diego, CA, August 25 - 29. The members will present their work at the poster session for Computer in Chemistry (COMP) Division of the ACS.

Alex will be presenting the Weighted Ensemble simulation framework python package (wepy), a tool useful for exploring rough free energy landscapes. Wepy is able to utilize OpenMM, a molecular simulation toolkit utilizing GPU code, multiprocessing parallelization, WExplore and REVO resampling algorithms, and store/take-in WE data sets from the command line.

SPARTANS WILL.

New Grants

Peter Lundquist (PI), Erich Grotewold and Addie Thompson (co-PIs) received an AgSpectrum award for their work on: Adaptive biochemical and physiological responses of maize hybrid lines to managed variables under abiotic stress.

Recent Publications

Lundquist P, Shivaiah KK, Espinoza-Corral R. "Lipid droplets throughout the evolutionary tree." *Progress in Lipid Research*. Volume 78. April 2020.

Sahrman P, Donnan P, Merz K, Mansoorabadi S, Goodwin D. "MRP.py: A Parameterizer of Post-Translationally Modified Residues." *J Chem Inf Model*. July 2020. Online ahead of print.

Lybrand DB, Xu H, Last RL, Pichersky E. "How Plants Synthesize Pyrethrins: Safe and Biodegradable Insecticides." *Trends in Plant Science*. Volume 25. July 2020.

Klinger GE, Zhou Y, Hao P, Robbins J, Aquilina JM, Jackson JE, Hegg EL. "Nucleophilic Thiols Reductively Cleave Ether Linkages in Lignin Model Polymers and Lignin." *ChemSusChem*. July 2020. Online ahead of print.