BioMolecular Science Weekly
November 12th – November 16th, 2018

Calendar:
Monday, November 12th
BMS Research Forum, 12:00 PM, 162 Food Safety
Joshua Lensmire, MMG, Hammer Lab, “Investigating mechanisms of sulfur source acquisition and utilization by Staphylococcus aureus at the host-pathogen interface”

WiPS Seminar, 12:00 PM, 1425 BPS
Nejc Stopnisek, Postdoc in the Shade Lab, “Describing and understanding the plant microbiota”

Tuesday, November 13th
MMG Seminar, 4:10 PM, 1415 BPS
Tim Yahr, University of Iowa, “Put Put‘ functions required for expression of the Pseudomonas aeruginosa type III secretion system”

Wednesday, November 14th
CMB & Genetics Research Forum, 12:00-1:00 PM, 1425 BPS
Peter Hsueh, CMB, “Sulfated and sialylated type 2 N-acetyllactosamine glycan antigens are overexpressed in a subpopulation of the pancreatic ductal adenocarcinoma and correlated with poor prognosis.”
The 3M Interest Group
Lei Yu, Lunt Lab, “Pyruvate Kinase Expression in Pancreatic Cancer”
C-Raind Brown Bag Series, 12-1 PM, 249 Hannah Admin Building
Daniel Campbell, Ph.D., Pediatrics and Human Development, College of Human Medicine, “Gene-Environment Interactions in Autism”

Thursday, November 15th
BMB Colloquium Series, 11:00 am, Room 101 Biochemistry
Zhisheng Wang, University of the Sciences, Philadelphia, “RAF Kinase Regulation”
EEBB Seminar, 3:30 PM, 1420 BPS
Andrew Whitehead, Environmental Toxicology, UC-Davis, “When evolution is the solution to pollution: The genomic basis of rapid adaptation to extreme environmental change”
Plant, Soil, and Microbial Science Seminar, 4:00-5:00 PM, A149 Plant and Soil Science Building
Allison Miller, St. Louis University, “Building a botanical foundation for perennial polyculture agriculture”

Friday, November 16th
MMG PhD Dissertation, 9:00 AM, 162 Food Safety
Sanjana Mukherjee, “Epidemiology of Antibiotic Resistant Shiga Toxin-Producing E. coli (STEC) and Non-Typhoidal Salmonella (NTS) in Michigan”
Science at the Edge Seminar, 11:30 AM-12:30 PM, 1400 BPS
David Cahill, Department of Materials Science & Engineering, University of Illinois, “Extremes of Heat Conduction in Materials”
BEACON Seminar, 3:30 PM, BEACON Conference Room in BPS
Eben Gering, MSU, TBA
Roderich Gross, U of Sheffield, “Emergent Behavior in Robot Swarms”
Plant Biology Seminar, 3:00-5:00 PM, PLB 168
Todd Barkman, Western Michigan University Biological Sciences, Title TBA
New Student Spotlight:

Lauren Heine

Before joining MSU, Lauren Heine graduated in May 2018 from the University of Hawaii at Manoa with a Bachelor of Science degree in Biology. During her undergraduate career, she worked in both a cardiovascular toxicology laboratory as an Undergraduate Pipeline Network Intern at the University of New Mexico, as well as in an environmental and molecular toxicology lab at Oregon State University as an SOT intern. Her past research experiences have helped to shape her interest in using an omics approach to evaluate mechanisms of toxicity in both in vivo and in vitro models. Lauren is interested in pursuing the Pharmacology and Toxicology PhD track in the BMS program. In her spare time she loves to travel, go on hikes, read great books, and make art.

Announcements:

A conversation about Pediatric Cancer Research and Treatment
November 14, 2018, 11:30 AM–1:30 PM, Van Andel Institute
Hosted by Carol Van Andel, Register here: https://www.vai.org/event/pediatric-cancer/

COGS Upcoming Events
December 6 – COGS Coffee Hour. Located in the lounge in Chittenden Hall. 4 pm to 5 pm. Enjoy coffee, snacks and conversation!

Upcoming Grad School Events
Dissertation walk-in formatting help sessions
Monday, November 19, 2018 from 10:30 a.m. to Noon in room 220 Chittenden Hall
Wednesday, December 5, 2018 from 10:00 a.m. to 11:30 a.m. in room 220 Chittenden Hall

Fall 2018 Thesis and Dissertation Deadline
The deadline for FINAL APPROVAL of an electronic Thesis or Dissertation by the Graduate School is Wednesday, December 19, 2018 at 5:00 p.m.. To accept a document for publishing on or before the deadline means that the student’s document has been reviewed by a graduate school employee, the document has been determined to be formatted correctly AND all required paperwork has been turned in to the Graduate School PRIOR TO the deadline date and time. Deadline day is not just the day that the document is to be submitted via ProQuest for the first time. It is the day where all of the requirements must be completed. Chances are, if a document is submitted on deadline day for the first time, the document will most likely be accepted for Spring graduation instead of Fall.

Students are encouraged to submit their document at least 2 weeks prior to the deadline (the earlier the better). As long as the student has successfully defended the thesis or dissertation and has made the corrections that the committee requires, he or she may feel free to submit the document via the ProQuest website.

Students are highly encouraged to read and follow the Thesis and Dissertation information available on the Graduate School’s website at: https://grad.msu.edu/etd. This site gives instructions on formatting, required paperwork, and how to submit to ProQuest.

Your GradPlan should be official and be as complete as possible prior to submitting to ProQuest.
Course Announcements:

Spring 2019: Metals in Biology (BMB 961-03, MGG 803-01, CMB 800-01)
Tu, Th: 9:10 AM-10:00 AM; Dr. Eric Hegg, Dr. Bob Hausinger
Metals in Biology is intended for grad students with backgrounds in biochemistry, molecular/cellular/plant biology, microbiology, and/or chemistry. In this course we will discuss the roles of metals in biological systems, including metalloenzymes, metallocenter biosynthesis, metal transport, metal toxicity, and metalloregulation. Discussions will focus on the catalytic mechanisms as well as the way in which the different protein environments “tune” their active site. Student presentations will be an important emphasis in this class.

Spring 2019: Spectroscopy with Application to Biomolecules (Chemistry 882)
Tu, Th, 10:20-11:40 AM; 581W Chemistry; 3 credits; Dr. David Weliky
The main course texts will be Principles of Physical Biochemistry by K. E. van Holde, W. C. Johnson, and P. S. Ho, 2nd edition; Molecular Quantum Mechanics by P. W. Atkins and R. S. Friedman; and Biochemistry by D. Voet and J. G. Voet, 3rd edition.

Spring 2019: “Bioinformatics and Computational Biology” (CMSE 491/890)
M,W,F: 11:00AM-12:10 PM, Dr. Arjun Krishnan
Introduction to contemporary topics, discussing the major biological/biomedical questions, exploring the relevant datasets, & understanding the underlying analytical approaches (from probability/statistics, applied mathematics, algorithms/data-structures, and data-science/machine-learning).

Spring 2019: “Drug Discovery and Medicinal Chemistry” (PHM 980-005)
T, Th: 9-10 AM, 2 Credits, Dr. King Sing Lee, Dr. Edmund Ellsworth
In this course, we will cover the fundamentals for the drug discovery process including but not limited to basic chemical knowledge, drug design principles, highthroughput screening, computational modeling and drug metabolic pathway. The purpose of this course is to equip students with the fundamental knowledge of discovery pharmaceutical research and to prepare them ultimately to work as a team-member in a discovery program.

Spring 2019: “Teaching College Science” (ISE 870)
ISE 870 Teaching College Science is a 2 credit course that introduces participants to the theory and practice of student-centered college teaching. Participants will be able to use an understanding of how people learn, the basics of curriculum design, and a range of teaching and assessment strategies and instructional technology to plan for, teach, and analyze effective science teaching.

Scholarships:

Rita S. Gallin Award Paper Competition
MSU GenCen's annual Rita S. Gallin Award paper competition is now open. We encourage graduate students to submit papers by the deadline of November 15, 2018. Papers should focus on issues related to women, gender, international development, and globalization. Winning author(s) will receive a $250.00 prize. The winning paper may also be peer-reviewed for publication in the GPID Working Papers and/or on the GenCen website. More information available on GenCen's website: https://gencen.msu.edu/about/student-paper-competitions/. Papers should be submitted via Qualtrics: tinyurl.com/gallin-paper.
Job Opportunities:

**Postdoctoral Positions in Viral Molecular Genetics and Pathogenesis**
Opportunity to study viral pathogenesis with Dr. Katherine Spindler at University of Michigan, if you are anyone you know is interested in that field. Kathy is a terrific investigator and a wonderful mentor. She is one of the regular hosts on the popular ASM podcast *This Week in Virology*. Go to [https://jobs.asv.org/job/179/postdoctoral_position_in_viral_molecular_genetics_and_pathogenesis](https://jobs.asv.org/job/179/postdoctoral_position_in_viral_molecular_genetics_and_pathogenesis) for more information and how to apply.

**Tenure-Track Position at Western Michigan University**
The Department of Biological Sciences at Western Michigan University seeks applications for one tenure-track position at the Assistant/Associate Professor level, beginning in Fall 2019, pending budgetary approval. The position is part of a cluster hire across the College of Arts and Sciences, with an emphasis on public health solutions. Other faculty will be hired in the departments of Chemistry, Sociology, Economics, Statistics and the Mallinson Institute for Science Education. ([https://www.wmich.edu/arts-sciences/public-health-cluster-hire](https://www.wmich.edu/arts-sciences/public-health-cluster-hire)).

Applicants must apply at [http://www.wmich.edu/hr/jobs](http://www.wmich.edu/hr/jobs) and submit a cover letter, CV, research statement, teaching statement and contact information for three references. Questions about the position may be directed to Dr. Kathryn Docherty at bios-facultysearch@wmich.edu. Review of applications will begin on November 16, 2018 and will proceed until the position is filled.

**Geneticist position at Slippery Rock University**
Slippery Rock University invites applications for a broadly trained geneticist, with a preference for an individual experienced in cell and/or molecular biology, for a tenure track Assistant Professor position in the Department of Biology, beginning August 2019. Responsibilities will include teaching genetics, courses in the area of specialization, lower-level biology majors courses, and non-major biology courses included in the Liberal Studies Program, as well as establishing a productive research program in the candidate’s area of expertise that can involve undergraduates.

Two additional searches are focused on zoology and plant biology: 
Links to the job descriptions are listed below: 
[https://chroniclevitae.com/jobs/0000450594-01](https://chroniclevitae.com/jobs/0000450594-01)
[https://chroniclevitae.com/jobs/0000449517-01](https://chroniclevitae.com/jobs/0000449517-01)
[https://chroniclevitae.com/jobs/0000450572-01](https://chroniclevitae.com/jobs/0000450572-01)