Calendar:

**Monday, October 22nd**
- **BMS Research Forum, 12:00 PM, 162 Food Safety**
  Heather Blankenship, BMB, Manning Lab, “Diversity of Shiga toxin-producing Escherichia Coli”
- **WiPS Seminar, 12:00 PM, 1425 BPS**
  Lavida Brooks, Mias Lab, “Analysis of Age-Dependent Gene Expression”
  John Chodkowski, Shade Lab, “Ecological consequences of exometabolites for microbial interactions”

**Tuesday, October 23rd**
- **MMG Seminar, 4:10 PM, 1415 BPS**
  Dr. Adam Lauring, University of Michigan, “RNA virus mutation rates, another spandrel?”

**Wednesday, October 24th**
- **CMB & Genetics Research Forum, 12:00-1:00 PM, 1425 BPS**
  Yueqi Zhang, CMB, “Heterozygous Deletion of Both Ncoa5 and Tip30 Increases Susceptibility to Hepatocellular Carcinoma Development in Female Mice”
- **Pharm Tox Seminar, 12:00-1:00 PM, B448 Life Science**
  Jason Bazil, MSU, “Rethinking the Mitochondrial Permeability Transition Phenomenon”

**Thursday, October 25th**
- **BMB Colloquium Series, 11:00 am, Room 101 Biochemistry**
  Niall Mangan, Northwestern University, “Biofuel/Bacterial Compartments”
- **Plant Resilience Brown Bag Series, 1:00 PM, 168 Plant Biology**
  Chiwimbo Gwenambira, “Sustainable intensification of maize-based cropping systems with diversified legumes in Malawi”
  Kin Lau, “Transcriptomic analysis of sweetpotato under dehydration stress identifies candidate genes for drought tolerance”
- **EEBB Seminar, 3:30 PM, 1420 BPS**
  Terri Williams, Biology, Trinity College, “Adding segments one by one: a tale of posterior elongation in arthropods”
- **Plant, Soil, and Microbial Science Seminar, 4:00-5:00 PM, A149 Plant and Soil Science Building**
  Matt Dickson, Ohio Forest Service, Title TBA
- **Physiology Seminar, 4:00 PM, 1425 BPS**
  A.J. Robinson, PhD, Assistant Professor, Physiology, MSU, “Circuit-specific transcriptional regulation in mouse models of learning and disease”

**Friday, October 26th**
- **Pharm Tox Seminar, 9:00-10:00 AM, B448 Life Sciences**
  Dana Spence, MSU, Title TBA
- **Science at the Edge Seminar, 11:30 AM-12:30 PM, 1400 BPS**
  Sudin Bhattacharyya, Biomedical Engineering, MSU, “Genome –Based Prediction of Critical Cellular Tranistions in Health and Disease”
- **Pathobiology and Diagnostic Investigation Seminar, 12:00 PM, 162 Food Safety**
  Dr. James Luyendyk, "Novel connections between the hemostatic system and acute liver injury.” -Pizza will be available
- **BEACON Seminars, 3:30 PM, BEACON conference room inside BPS**
  Rima Mouwad, MSU, “Title TBA”
- **Plant Biology Seminar, 3:00-5:00 PM, PLB 168**
  Bibin Paulose, MSU PLB, “A Mitochondrial Component of the Algal Carbon Concentrating Mechanism Improves Plant Resilience”
New Student Spotlight:

Kati Ford

Kathryne (Kati) Ford graduated from Michigan State University in December 2017 with a Bachelor of Science degree in Environmental Microbiology, and a minor in Environmental and Sustainability Studies. Kati’s undergraduate research focused on linking microbial activities and populations with geochemical fluxes from active serpentinizing systems, working to understand this system as a means for atmospheric carbon sequestratation. She is passionate about environmental protection and is interested in understanding novel microbial processes that can be harnessed to solve environmental problems. In her free time, she enjoys drawing and painting, hiking, exploring Lansing with friends, and hanging out with her ginger cat, Buttons. She has lived in Michigan her whole life, but especially loves living in Lansing because it’s easy to walk everywhere and there are always fun events happening. She also wants to remind everyone to get out and vote on November 6th!

Announcements:

Broad Wellness: Yoga
Sunday, Oct. 21, 2018; 11:00 AM
Stretch your mind, body, and spirit at the MSU Broad Museum!
Register: https://commerce.cashnet.com/cashneti/selfserve/EditItem.aspx?PC=3724-PP-3&ItemCount=1
Facebook: https://www.facebook.com/events/177010652956779/

Run for the Roses, Hope on the Hill Gala
October 25, 2018, 6:00 PM, Van Andel Institute
Go to https://www.vai.org/event/hope-hill-gala-18/ for more information!

Science Debate Student Group
Wednesday, October 31st at 12PM in 2245 BPS
Email Taylor Dunivin (dunivint@msu.edu) or Amanda Koenig (koenigam@msu.edu) with questions, or visit sciencedebate.org for more information.

COGS Upcoming Events
October 20 and November 10th – COGS Tailgates. Located in front of Chittenden Hall, 2-3 hours prior to kickoff. Free food and giveaways. Celebrate game day with your fellow graduate & professional students!
October 28 – COGS Annual Detroit Red Wings Bus Trip; Tickets on sale now! $50 includes game ticket, $10 food/concessions voucher and RT transportation.
October 27-31 – Tickets to MSU Theatre Dept. 10th Annual Haunted Aud. Limited number of half-price tickets available for grad & professional students to purchase.
November 6 – COGS Trivia Night. 8 pm at Harrison Roadhouse Pub (behind Harrison Roadhouse)
December 6 – COGS Coffee Hour. Located in the lounge in Chittenden Hall. 4 pm to 5 pm. Enjoy coffee, snacks and conversation!

Upcoming Grad Events
October 23 — Digital Presences; 5:30-7:30 PM; 110 Chittenden; Enhance your professional presence online!
October 24 — Global Engagement Speaker Series; Norbert Steinhaus; 12-1 PM; Click here for more info!
October 26 — Communication and Conflict Management; 10 AM-12; 110 Chittenden; Click here for more info!
**Course Announcements:**

**Exposure Science and Environmental Epidemiology, Spring Semester 2019, 3 credits**

*New course offering by the Department of Food Science and Human Nutrition (FSC) at MSU and is approved as an elective course for the Environmental and Integrative Toxicological Sciences (EITS) doctoral program.*

**Course info:** FSC 891, 3 credits, time/date/location to be determined by class

**Course overview:** Interested to learn how human exposure to chemicals in food and the environment affect human health and illness? This course will teach essential concepts of exposure science and environmental epidemiology as they apply to chemicals and other agents in food and the environment. Lectures will cover basic concepts in toxicology, exposure assessment, environmental epidemiology, and risk assessment. Case studies will include arsenic in drinking water and rice; mercury in fish; phenols and phthalates in consumer products and food packaging; volatiles in water and indoor air; flame retardants and perfluoroalkyl substances.

**Instructor:** Courtney Carignan, PhD ([carignan@anr.msu.edu](mailto:carignan@anr.msu.edu)), Departments of Food Science & Human Nutrition and Pharmacology & Toxicology

**Prerequisites:** Statistics, basic biological and chemical science.

**Format:** Topics will be introduced with presentations based on lecture notes, assigned readings or case studies, accompanied by hands-on exercises and class discussion.

**Evaluation:** Students will be evaluated based on quality of assignments, midterm exam, final presentation, attendance, and participation in discussions.

**Nov 2019 (1-credit): “Gaps, Missteps, and Errors in Statistical Data Analysis” (BMB 961-301)**

Nov. 5– Dec 5 2018, M & W: 12:40-2:00 PM, Dr. Arjun Krishnan

This is an advanced short course designed to:

1) Discuss common misunderstandings and typical errors in the practice of statistical data analysis.
2) Provide a mental toolkit for critical thinking and enquiry of analytical methods and results.

**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).

**Job Opportunities:**

**Postdoctoral Positions in Cell and Developmental Biology**

A fully funded, 5-year Postdoc position in the McNeill lab is available to study how the nuclear envelope regulates gene expression during reprogramming from oocytes to early embryos. This project centers on a poorly studied protein, Nemp, that we have found is essential for fertility in flies, worms, fish and mice. Our studies indicate that NEMP1 supports nuclear envelope stiffness, and that loss of Nemp1 leads to defects in chromatin organization. Applicants should have a PhD and demonstrated relevant research experience. Excellent communication skills and the ability to work in collaboration are essential. A strong background in molecular biology, developmental biology, or cell biology is preferred. Experience in RNA-seq, ChIP-seq, Hi-C and bioinformatics is a plus.

Another fully funded Postdoc position is available to study how Fat cadherins and the Hippo pathway regulate tissue growth and regeneration in fly and mouse models. One focus there is to understand how the Hippo pathway regulates branching morphogenesis in mouse embryonic kidney explants. Expertise in imaging would be very helpful.

The McNeill lab ([http://mcneillab.wustl.edu/index.html](http://mcneillab.wustl.edu/index.html)) studies how cell fate and cell proliferation are controlled in vivo, using diverse model organisms. The lab is located in the Department of Developmental Biology at Washington University School of Medicine. Consistently ranked among the top 10 US medical schools, Washington University School of Medicine offers a highly interactive and stimulating academic environment for scientists in training. The lab is in a highly collaborative environment, with outstanding resources. We are located in the heart of the Central West End, a vibrant St. Louis neighborhood adjacent to major cultural institutions and one of the country’s largest urban parks. We offer competitive salary and benefit packages and candidates are eligible to apply for a Rita Levi-Montalcini Postdoctoral Fellowship offered by the Center of Regenerative Medicine.

To apply please submit a CV, a cover letter describing research interests, and contact information for two references who can comment on your research to mcneillh@wustl.edu. Applications will be reviewed promptly until the position is filled. Washington University is an equal opportunity employer and complies with applicable EEO and affirmative action regulations.
Job Opportunities:

Postdoctoral Scholar Position Available in Evolutionary and Isotopic Enzymology

The Blue Marble Space Institute of Science has an opening for a postdoctoral scholar with interests in evolutionary protein biochemistry and geochemistry.

The position is available immediately. The successful candidate will work in a collaborative and multi-institutional group which seeks to test and develop hypotheses related to the role of thioester chemistry in nascent life and the chemical networks that proceeded living systems. A primary target will be to determine enzyme specific kinetic isotope fractionation factors by purifying enzymes and conducting isotope ratio mass spectometry measurements of substrate and product. Experience in anaerobic protein purification and manipulation is highly desirable. This project results from a recent NSF/NASA Ideas lab, and the position is made possible through the NSF Emerging Frontiers Crosscutting Activities Program (Award Abstract 1724300). The position is extendable beyond one year.

The successful candidate will benefit from working together and sharing research results and ideas collaboratively within our diverse group. The primary workplace of the successful candidate will be the Earth- Life Science Institute (ELSI) at the Tokyo Institute of Technology with supervision from Shawn McGlynn and regular interactions with group members including: Betul Kacar – University of Arizona, Boswell Wing – CU Boulder, Chris Butch – BMSIS/ELSI, Chris House – Penn State, Daniel Segrè – Boston University

Interested individuals should send a 1-2 page cover letter describing their research experience, publications, and motivation. In addition a current CV and contact information for three references should be sent. Letters of reference will be collected for finalists. These documents can be sent to: mcglynn@elsi.jp Candidates must be already authorized to work in the U.S. prior to applying for this position. For more information and to discuss the project and employment specifics, please contact Shawn McGlynn.

TA Tuition Pool

The TA Tuition Pool application for spring semester 2019 is now open. The link to the application can be found on the Graduate School home page at: https://grad.msu.edu/TAtuitionpool under "News." The application deadline is Friday, October 19, 2018 at 5:00pm.

These tuition credits are available only to students who are appointed as teaching assistants in the spring semester, and they can only be used for spring semester credits. They can be used toward required courses that go beyond the 9 credits included in the assistantship benefits. The application must be supported by a faculty letter confirming that the credits are required for the student’s program.

The GEU will select which students will receive support through the TA tuition pool, according to the priority categories listed on the application page. The application for summer semester 2019 credits will open in February.

NeuroScience Program Teaching Assistantship

The Neuroscience Program is soliciting application for teaching assistantship positions for NEU 302 for Spring Semester 2019. Below is a description of the expected responsibilities for the course.

Teaching Assistant Duties NEU 302:
- attend lectures on Mondays and Wednesdays (2 hours)
- lead 2 recitation sessions- one on Thursday and one on Friday (2 hours)
- hold two hours of weekly office hours (2 hours)
- attend a weekly preparation meeting (1 hour)
- prepare and give exam review sessions (1-2 hours for each of the 4 exams)
- grade exams and other assignments (1-3 hours)
- proctor make-up exams (1 hour for each week of the 4 exams)
- provide timely email correspondence with students (<1 hour)
- read and respond to student extra credit questions twice per week (<1 hour)
- make supplemental course materials for “muddiest points” as identified by the students (1 hour)
- serve as a liaison for students completing the Honors option for NEU 302. Responsible for the grading of the final submissions of Honors option assignments (variable hours, more at the end of the semester)
- communicate student issues with the instructor within 24 hours (<1 hour)
- conduct themselves professionally around NEU 302 students

Scholarships:

Big Ten Academic Alliance Smithsonian Institution Fellowship

The application period for the Big Ten Academic Alliance Smithsonian Institution Fellowship is now open. The deadline for submitting applications is 5 pm on November 1, 2018.

This program provides one-year fellowships to doctoral students to support research at Smithsonian Institution facilities. Students must have completed all coursework for their program, be admitted into doctoral candidacy, and completed all requirements except for completion of the dissertation. Fellowships carry a stipend of $36,000, which is paid by the Smithsonian Institution and the fellow’s home institution.

For more information on the fellowship, please visit http://www.btaa.org/students/smithsonian-fellowship. On this site, you will find an Application Guide, Campus Contacts, and a link to the application portal housed with Smithsonian.