BioMolecular Science Weekly
November 5th– November 9th, 2018

If you plan to attend Michigan State University this upcoming spring semester, you must be enrolled in at least one spring course by 8 p.m. on Friday, November 9, 2018 to avoid a late enrollment fee.

**Calendar:**

**Monday, November 5th**

* BMS Research Forum, 12:00 PM, 162 Food Safety

* WIPS Seminar, 12:00 PM, 1425 BPS
  Nicolas Fernandez, Waters Lab, “The role of cyclic di-GMP in mitigating environmental stress in Vibrio cholera”
  Nkrumah Grant, Lenski Lab, “Allometric scaling relationship between cell size and fitness in a long term evolution experiment with E. coli: Correlation or spandrel?”

**Tuesday, November 6th**

* MMG Seminar, 4:10 PM, 1415 BPS
  Dr. John Rawls, Duke University Medical Center, “Host-microbiota interactions in the intestine - Lessons from the zebrafish”

* Genomics Core Seminars, 162C Food Safety
  10 AM: Jennifer Pechal, Assistant Professor, Entomology, “Why Study the Postmortem Microbiome?”
  11 AM: Spence Fast, Sequencing Specialist, Illumina, “Environmental DNA (eDNA) and Metagenomic Applications for Next Generation Sequencing”
  11:45 AM: Scott Evans, Sr. Territory Account Manager, Illumina; Announcement of a Core Lab Partnership with MSU Genomics Core

**Wednesday, November 7th**

* CMB & Genetics Research Forum, 12:00-1:00 PM, 1425 BPS

* Pharm Tox Seminar, 12:00-1:00 PM, B448 Life Science
  Timothy Nurkiewicz, West Virginia University, Title TBA

**Thursday, November 8th**

* BMB Colloquium Series, 11:00 am, Room 101 Biochemistry
  Vanessa Phelan, University of Colorado, Denver, “Mass Spectrometry of Microbe Interactions”

* Plant Resilience Brown Bag Series, 1:00 PM, 168 Plant Biology
  Acer VanWallendael, “Geographic variation in QTLs for rust pathogen resistance in switchgrass.”
  Ben Mansfeld will present on “Inhibitory effects of cucumber age-related resistance to Phytophthora capsici manifest within 24 hours of inoculation.”

* EEBB Seminar, 3:30 PM, 1420 BPS
  Mark Christie, Biological Sciences, Purdue University, “Rapid evolution in a changing world”

**Friday, November 9th**

* Plant, Soil, and Microbial Science Seminar, 4:00-5:00 PM, A149 Plant and Soil Science Building
  Addie Thompson, “Linking genotype to phenotype in maize using quantitative genetics and high-throughput phenotyping”

* Physiology Seminar, 4:00 PM, 1425 BPS
  Dr. Andrew McCulloch, Bioengineering, UC San Diego, “Multi-Scale Modeling and Systems Mechanobiology of Heart Failure”

* Science at the Edge Seminar, 11:30 AM-12:30 PM, 1400 BPS
  Ting Wang, Genetics, Washington University School of Medicine in St. Louis, “Transposable Elements and Epigenome Evolution”

* PhD Preliminary Examination, 12:00 PM, 1425 BPS
  Joshua Lensmire, “Investigating mechanisms of sulfur acquisition and utilization by Staphylococcus aureus at the host-pathogen interface”

* Plant Biology Seminar, 3:00-5:00 PM, PLB 168
  Teresa Clark, MSU Plant Biology, “Carbon Use Efficiency and Oil Biosynthesis in Camelina Sativa Embryos”
New Student Spotlight:
Nicholas Giacobbi

Before joining MSU, Nicholas Giacobbi worked as a research technician after graduating with his Bachelor of Science degree in Biological Sciences at the University of Pittsburgh in 2010. He later earned a Master of Science degree in Infectious Diseases and Microbiology from Pitt’s Graduate School of Public Health in 2014. Nicholas’s graduate thesis research focused on polyomavirus tumor antigen proteins. Nicholas is a dual degree student in the DO/PhD program interested in the Physiology track through the BMS Gateway. Nicholas is currently rotating in the lab of Dr. Andrea Doseff.

Announcements:

Leadership Summit
Saturday, November 3, 2018 - 8:00am to 5:00pm
Holmes Hall
The Graduate Student Leadership Summit is an intense, one-day leadership development event, open to all graduate, graduate professional students, and post-docs. The goal of the Summit is to empower graduate students to take a proactive approach to their leadership development so they may make a difference at MSU and in the world. Through quality keynote speakers and engaging workshops, students interact with content related to personal, relational, functional, and contextual leadership skills while participating in experiences that can help them develop their core leadership competencies. This workshop has a $10 fee. Click here to register for this workshop.

Graduate Student Career Forum
Hosted by: Genetics Program
Thursday, November 8th, 2018, 11AM—12:30PM in BPS 1400
We have a fantastic panel of scientists who have found fulfilling careers both inside and outside academia. Come hear about how they navigated their career paths, and how you can too. Panel members will briefly introduce themselves, and then we’ll open the floor for questions from the audience. After the panel discussion, we’ll adjourn for lunch, where you can mingle with our guests and get answers to any lingering questions. Lunch is provided for all attendees. See our panel lineup and get details at: https://genetics.natsci.msu.edu/events/career-workshops
All graduate students are welcome. We hope to see you there!

Graduate Employees Union General Meeting
Friday, November 9th, 5:30 PM, Erickson Kiva
Join us at Erikson Hall Kiva (Room 103) for a fun night of free tacos and drinks! We will be conducting important business like voting on our contract platforms, voting and confirming bargaining teams, and approving the union’s budget. As always, childcare can be reimbursed! We hope to have as many people come as possible so our contract reflects the needs and requests of all our members. Our strength comes from our unity and collective effort! Please RSVP so we have a proper head count for food!

Introduction to Tidy Data with R
Date/Time: Remember remember the 5th of November ... 6–730p
Venue: BPS 1425 (bit.ly/rrel-venue; opposite to Sparty’s)
RSVP required: bit.ly/rrel-meetup (RSVP to the Nov 5 ‘18 event)

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/
Announcements Cont.

COGS Upcoming Events

November 6  -  COGS Trivia Night.  8 pm at Harrison Roadhouse Pub (behind Harrison Roadhouse)
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!

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

PhD Parade: Career Management Tactics with Dr. Erik Wong
Tuesday, November 6, 2018 - 5:00 to 7:30pm; Chittenden Hall, Room 110
The job market for PhDs has changed over the past several decades. In the current job market, PhDs find careers inside and outside of traditional faculty roles. Join PhD Career Services and the MSU BEST program to explore some of the careers available to PhDs. We continue the series on the evening of November 6 with Dr. Erik Wong. Doctor Wong will talk about his career consulting for government and private companies. Dinner will be provided.

Click here to register for this workshop.

Back to Basics Series: Cover letters and Resumes
Wednesday, November 7, 2018 - 12:00 to 1:30pm; Chittenden Hall, Room 110
The goal of this workshop is to answer all these questions and more. We will cover what you should know about yourself and your prospective employer and analyze examples of good and bad resumes & cover letters. The ultimate goal is to teach you some new methods for catching that prospective employer’s eye regardless if you are going on the academic or non-academic track.

Click here to register for this workshop.

Dissertation walk-in formatting help sessions
Friday, November 9, 2018 from 1:30 p.m. to 3:00 p.m. in room 220 Chittenden Hall (2nd floor conference room)
Monday, November 19, 2018 from 10:30 a.m. to Noon in room 220 Chittenden Hall (2nd floor conference room)
Wednesday, December 5, 2018 from 10:00 a.m. to 11:30 a.m. in room 220 Chittenden Hall (2nd floor conference room)

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.
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.

**Faculty Opening in Microbial Metabolism**

The University of North Texas invites applications for an assistant or associate professor in the Department of Biological Sciences and the BioDiscovery Institute. We seek individuals working at the forefront of microbial metabolism and metabolic engineering. Candidates addressing the synthesis of bio-based products are especially encouraged to apply. The new hire will complement and interact with colleagues in systems modeling of metabolism, biochemistry, and biotechnology. A competitive start-up package, newly renovated research space, and state-of-the-art core facilities in genomics and metabolomics will support the new hire.

Please find more information from our advertisement that appeared in Science ([https://jobs.sciencecareers.org/job/484813](https://jobs.sciencecareers.org/job/484813)). The position is open until filled, but candidates are encouraged to submit applications as soon as possible ([https://facultyjobs.unt.edu](https://facultyjobs.unt.edu)) since initial review of applicant is about to start.

Thank you for your cooperation in this matter.

**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)

**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/](https://gencen.msu.edu/about/student-paper-competitions/).

Papers should be submitted via Qualtrics: [tinyurl.com/gallin-paper](https://tinyurl.com/gallin-paper).