BioMolecular Science Weekly

September 24th – September 28th, 2018

Calendar:

Monday, September 24th
BMS Research Forum, 12:00 PM, 162 Food
Taylor Dunivin, MMG, RefSoil+ provides insights into antibiotic resistance genes on soil plasmids

WiPS Seminar, 12:00 PM, 1425 BPS
Joo-Young Lee, Post-Doc, “Identification of a dynamic middle ear microbiome in healthy adult individuals”

Tuesday, September 25th
MMG Seminar, 4:10 PM, 1415 BPS
Dr. Prahathees Eswara, University of South Florida, “Cell division regulation in Gram-positive bacteria”

Wednesday, September 26th
CMB & Genetics Research Forum: RCR Discussion, 12-1 PM, 1425 BPS
Ryan Corbett, Journal Club—“Placental H3K27me3 establishes female resilience to prenatal insults”

Genomics Core Workshop, 2 PM, 162C Food Safety
Emily Crisovan, MSU Genomics Core; “How Much Sequencing Do I Need?”; This is a problem solving workshop where we will discuss how to determine what type and how much sequencing is required for common next-generation sequencing projects

Thursday, September 27th
BMB Seminar, 11:00 am, Room 101 Biochemistry
Kristin Parent, MSU, Tenure Talk

EEBB Seminar, 3:30 PM, 1420 BPS
Sarah Saunders, Quantitative Ecologist, Audubon Society, “Careers Outside of Academia”
Plant, Soil, and Microbial Science Seminar, 4:00-5:00 PM, A149 Plant and Soil Science Building
Ashley Shade, MMG and PSM, “Understanding microbiome resilience on a changing planet”

Friday, September 28th
BEACON Seminars, 3:30 PM, BEACON conference room inside BPS
Matthew Andres Moreno, MSU, “Understanding Fraternal Transitions in Individuality”
Wei Wang, MSU, Title TBA

Plant Biology Seminar, 3:30 PM, PLB 168

Pharm Tox Seminar, 9:00 AM- 10:00 AM, B448 Life Science
Bin Chen, MSU, Drug Discovery Seminar

MMG PhD Dissertation Defense, 9-10 AM, 1425 BPS
Michael Maiden, “THE IDENTIFICATION OF NOVEL AMINOGLYCOSIDE ADJUVANTS FOR THE ERADICATION OF PSEUDOMONAS AERUGINOSA BIOFILMS”

New Student Spotlight:

Nick Chargo

Nicholas (Nick) Chargo graduated from Michigan State University in May 2018 with a Bachelor of Science degree in Kinesiology and a minor in Health Promotion. As an undergraduate student he spent time conducting research in two labs (1) that focused on bone metabolism as it relates to the gut microbiome as well as (2) morphology of the keel bone in laying hens throughout their life cycle. Nick is interested in the Physiology program through the BMS Gateway Program and is pursuing the DO/PHD dual degree. He is interested in pursuing research in biomechanics and has completed a rotation in the Popovich lab at MSU Center for Orthopedic Research and is currently rotating in the Orthopaedic Biomechanics Lab under Dr. Wei. Nick’s hobbies include watching and playing sports (football, golf, basketball), hanging out with friends, reading and playing with his 2 year old Australian Shepherd named Dawson. He enjoys living in East Lansing because there is always something to do and there are endless opportunities to explore the city as well as go into Lansing for fun.

Announcements:

2018 Southeast Michigan Postdoctoral Symposium
October 6, 2018, 8:30 AM-5:30 PM, University of Michigan’s North Campus Research Complex
Open to Postdocs and Grad Students from all disciplines
Keynote Speaker: Shaughnessy Naughton, Founder and President of 314 Action

Shaughnessy founded 314 Action to encourage and unite the scientific community to do more than just advocate for science, and to get involved in the political process. That means run for office, at any level, organize and call on your representatives to stand with science and to make your voices heard. Science is and always should be above politics.

Additional Speakers Include:
Joy Rohde, Interim Director of UM Science Technology Policy Program
Michael Cianfrocco, Assistant Professor of Biological Chemistry
David Olson, Mentor-in-Residence at UM Tech Transfer Office

Present your research during the Poster and 3 Minute Talk sessions
Prizes for top 3 presentations in both sessions
(1st—$150, 2nd—$100, 3rd—$50)
Abstract Submission Deadline of Sept 28th

For registration ($15) and Abstract Submission info, visit
https://umpda.rackham.umich.edu/symposium/

COGS Upcoming Events, Discounts, and Services
Greetings Spartan Graduate & Professional Students!
Welcome to the 2018-2019 academic year! COGS would like to remind you of some great services and upcoming activities that you can take advantage of as Graduate or Professional Student.

Check out COGS special discounts and services:
• COGS Discount Wharton Center Tickets – COGS offers $5 off the regular student price for a limited number of tickets to a selection of shows throughout the year. Be sure to check our website Events page often for available ticket sales. Right now Broadway musical, School of Rock, tickets are available for Graduate & Professional students to purchase for $24 ea. Visit: https://cogs.msu.edu/home/upcoming-events/ (MSU ID needed for ticket pick-up at the COGS office.)
• COGS Wings Wednesday - All day wings are half off at Harrison Roadhouse every Wednesday for grad/professional students wearing a COGS wristband. Need a wristband? Stop by the COGS office in Chittenden Hall (room 120) and get one.
• Free Legal Services - visit http://cogs.msu.edu/resources/services/legal-aid/ for more information.
• Short Term Loans - visit http://cogs.msu.edu/resources/services/loans/ for more information.
• Funding Opportunities - visit http://cogs.msu.edu/resources/funding/ to learn more.

COGS Upcoming Events:
September 29 – MSU v CMU COGS Tailgate. Located in front of Chittenden Hall, 2 hours prior to kickoff. Free food! Celebrate game day with your fellow graduate & professional students!
October 11 – COGS Coffee Hour. Located in the lounge in Chittenden Hall. 4 pm to 5 pm. Enjoy coffee, snacks and conversation!
October 28 – COGS Annual Detroit Red Wings Bus Trip; A limited number of tickets will go on sale Oct. 1st at noon. Game Date is Sunday, October 28th - puck drops at 5:00 pm. See the Detroit Red Wings face the Dallas Stars at Little Caesars Arena. Ticket Combo costs $50 and includes: (1) game ticket, round-trip charter bus transportation from MSU Campus, and a $10 concessions credit. Limit 2 combos per student. Available until sold out.

AND MORE! Please like and follow us on Facebook & Twitter for updates and visit our website for more information. We look forward to getting to know you this year!

Job Opportunities:

Postdoctoral Associate Position:

**Position summary:** The Caswell laboratory at Virginia Tech is seeking a Postdoctoral Research Associate to study virulence mechanisms in the pathogenic bacterium Brucella abortus. This NIH-supported position has 2 years of guaranteed funding. The Associate will conduct research projects related to defining genetic mechanisms and biochemical systems important for Brucella pathogenesis.

**Required qualifications:** Ph.D. in microbiology, molecular biology, or related discipline. Strong background in bacterial genetics, biochemistry, or animal models of infectious disease. Track record of peer-reviewed publications in high quality journals. Demonstrated ability to work independently and organize and prioritize work. Excellent communication skills and the ability to work closely with other individuals. Ability to obtain clearance for independent work in a Select Agent BSL-3 laboratory.

**Preferred qualifications:** Experience with genetic manipulation of bacteria. Experience with microscopy. Desire to develop scientific writing skills.

**Distribution of duties:** 95% research and scholarship. 5% teaching and instruction.

**Duration of position:** 2 years.

**Position availability:** Immediately.

**Required materials:** Cover letter, CV, and list of three references.

**Website:** [https://listings.jobs.vt.edu/postings/90026](https://listings.jobs.vt.edu/postings/90026)

**Posting Number:** SR0180163

**Postdoctoral, Visiting Scholar and Technician Positions at Cincinnati Children’s Hospital Medical Center (CCHMC) : Cincinnati, OH, United States**

Postdoctoral, visiting scholar and technician positions in bioinformatics and epigenomics (computational/experimental) are available at Dr. Yaping Liu’s lab in the Department of Pediatrics, Cincinnati Children’s Hospital Medical Center (CCHMC) to study epigenomics in circulating nucleic acid. Our group will focus on using genetic and multi-dimensional epigenetic information in circulating cell-free DNA and exosomes to understand the gene regulation at the population level and therefore bridge the gap between genetic and phenotypic variations at different healthy and pathological conditions. Dr. Yaping Liu is an incoming tenure-track assistant professor and will join the department at CCHMC in January 2019. Dr. Liu received his B.S. from Nanjing University in Biotechnology and Ph.D. in Genetics.
from University of Southern California under the supervision of Dr. Benjamin Berman. He finished his postdoctoral training at Dr. Manolis Kellis lab in MIT and Broad institute of MIT and Harvard. Right now he is a principal computational biologist in Freenome Inc. to do cancer early detection research by using genomics in liquid biopsy.

CCHMC is located at Cincinnati, Ohio state (OH). It is the 2nd best children's hospitals in the 2018-19 U.S. News & World Report and 3rd highest recipient of grants from the National Institutes of Health (NIH) for pediatric research. It is also ranked as 3rd best Department of Pediatrics at a US medical school, in U.S. News & World Report 2016 survey of best graduate schools. There are plenty of excellent research core facility support in CCHMC (details in https://www.cincinnatichildrens.org/research/cores ). Cincinnati is the 28th largest metropolis area in US and largest one in Ohio. Many companies' headquarter are in Cincinnati, such as P&G, Kroger.

What We’re Looking For:
Computational postdoctoral positions:
- Ph.D. (recent/expected) in computational biology, bioinformatics, genomics or quantitative research fields.
- Proficiency with at least one high-level scripting language (R/Python/Perl) and linux operating system. It will be better to also have some experience with Java/Scala.
- Excellent quantitative background in statistics and machine learning, and/or computational genomics background. Familiarity with large scale next generation sequencing (NGS) data analysis (WGS, WGBS, RNA-seq, ChIP-seq and/or related)
- At least one decent first or co-first author SCI paper published or accepted.
- Highly motivated and ability to work independently
- Fluent in English (spoken and written)

Experimental postdoctoral positions:
- Ph.D. (recent/expected) in biomedical related field.
- Strong training background in one or more of the following areas: epigenetics/epigenomics, genetics/genomics, immunology or liquid biopsy
- Familiar with basic molecular biology techniques (PCR, qPCR, mammalian cell culture) and NGS library preparation (WGS, WGBS, RNA-seq, ChIP-seq and/or related). It will be better to have some experience in FACS sorting, single-cell -omics and/or liquid biopsy
- At least one decent first or co-first author SCI paper published or accepted.
- Highly motivated and ability to work independently
- Fluent in English (spoken and written)

Research assistant positions:
- B.S./B.A. level or above in biomedical related field.
- Familiar with basic molecular biology techniques (PCR, qPCR, mammalian cell culture) and NGS library preparation (WGS, WGBS, RNA-seq, ChIP-seq and/or related). It will be better to have some experience in FACS sorting, single-cell -omics and/or liquid biopsy
- Highly motivated
- Fluent in English (spoken and written)
Anticipated start date is January 14th, 2018 or after. Generous stipends will be paid according to NIH postdoctoral stipend levels with additional CCHMC benefit (e.g. healthy insurance, retirement plan and generous relocation package will be provided, details in https://www.cincinnatichildrens.org/education/research/postdoctoral ). Potential candidates are encouraged to send a cover letter, CV, and names and contact information of 2-3 referees to: Yaping Liu, Division of Human Genetics, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, USA. Email: lyaping1986@gmail.com.

Scholarships & Fellowships:

The DOE Office of Science and Graduate Student Research (SCGSR) Program
The Department of Energy’s (DOE) Office of Science is pleased to announce that the Office of Science Graduate Student Research (SCGSR) program is now accepting applications for the 2018 Solicitation 2. Applications are due 5:00pm Eastern Time on Thursday, November 15, 2018.

Detailed information about the program, including eligibility requirements and access to the online application system, can be found at: https://science.energy.gov/wdts/scgsr/.

The SCGSR program supports supplemental awards to outstanding U.S. graduate students to conduct part of their graduate thesis research at a DOE national laboratory/facility in collaboration with a DOE laboratory scientist for a period of 3 to 12 consecutive months—with the goal of preparing graduate students for scientific and technical careers critically important to the DOE Office of Science mission.

The SCGSR program is open to current Ph.D. students in qualified graduate programs at accredited U.S. academic institutions, who are conducting their graduate thesis research in targeted areas of importance to the DOE Office of Science. The research opportunity is expected to advance the graduate students’ overall doctoral thesis/dissertation while providing access to the expertise, resources, and capabilities available at the host DOE laboratories/facilities. The supplemental award provides for additional, incremental costs for living and travel expenses directly associated with conducting the SCGSR research project at the DOE host laboratory/facility during the award period.

The Office of Science expects to make approximately 50 awards in 2018 Solicitation 2 cycle, for project periods beginning anytime between June 3, 2019 and September 30, 2019.

Since its inception in 2014, the SCGSR program has provided support to over 370 graduate awardees from more than 120 different universities to conduct thesis research at 18 DOE national laboratories/facilities across the nation.

The SCGSR program is sponsored and managed by the DOE Office of Science’s Office of Workforce Development for Teachers and Scientists (WDTS), in collaboration with the six Office of Science research programs offices and the DOE national laboratories/facilities, and program administration support is provided by the Oak Ridge Institute of Science and Education (ORISE).
For any questions, please contact the SCGSR Program Manager, Dr. Ping Ge, at sc.scgsr@science.doe.gov.

U.S. Department of Energy, Office of Science