

College of Natural Science | BMB Weekly | Vol. 55, No. 30

Aug. 19, 2022

Seminar Calendar

MSU IT: Fall Educator Seminars

Attention: Academic Faculty and Staff August 24-26, 2022 — 9 a.m.–4 p.m.

Join MSU IT, MSU Libraries, and The Center for Teaching and Learning Innovation at the virtual 2022 Fall Educator Seminars. Training sessions for every skill level will dive into topics such as how to design effective, interactive courses for students or how to connect with library resources.

These virtual instructor-led seminars will take place Aug. 24-26 from 9 a.m. to 4 p.m. and feature a variety of topics. Go to <u>iTeach</u> to view the schedule and register. Learn more <u>here</u>.

TEAM-UP Seminar: Sarah Percival

Using Topological Data Analysis to Study Plant Morphology August 25, 2022 – 11:30 a.m. 208 BCH If you would like to Zoom in, click here. Passcode: 084913

Coming Soon: Fall Colloquium Series

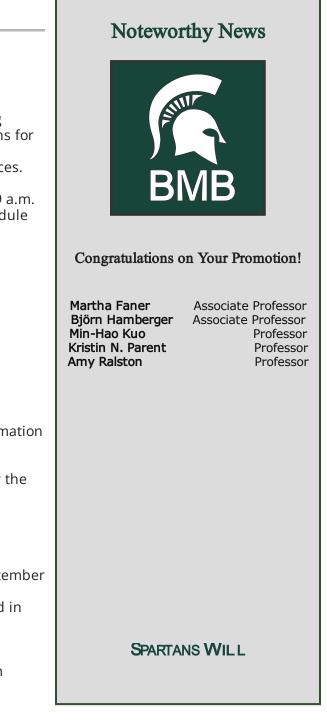
Our <u>first seminar speaker</u> will be Blanca Barqurea presenting "When structure meets function: Energy metabolism in bacteria." More information will be available next week.

Note: Due to concerns regarding the time constraint of 50 minutes for the seminars, a new time and location have been secured.

Time change: The presentations will now be from 10-11 a.m. **Location change**: BPS 1425

The Fall BMB 978 Colloquium Seminar series will begin Thursday September 1, 2022 and run through December 8, 2022. The complete schedule is available on the BMB Fall Seminar Series <u>website</u>. If you are interested in meeting with any of these speakers please email Leslie Williams, glady@msu.edu.

Many speakers are planning to visit in-person which is terrific! A zoom option will continue to be offered for all seminars as well.



Mark Your Calendar

ETD Deadline Day for Summer 2022 Semester

August 24, 2022 — 5 p.m.

The deadline for FINAL APPROVAL of an electronic Thesis or Dissertation by the Graduate School is Wednesday, August 24 at 5 p.m. Learn more <u>here</u>.

Graduate School Welcome & Resource Fair

Audience: New and Returning Graduate Students

Audience: Current Graduate Students

August 27, 2022 — 10 a.m.–12 p.m.

All **new** and **returning** Graduate Students are invited to attend the annual welcome program for graduate students of MSU. Dean Pero Dagbovie will welcome students to Michigan State University and introduce the activities of the Graduate School. Resource Fair will include student organizations, campus groups and community businesses – all ready to provide you with valuable information! A welcome celebration, sponsored by the Council of Graduate Students, will be held afterwards in between Chittenden Hall and Student Services.

Graduate Student Success – Paving Your Own Pathway for Professional Success

August 29, 2022 — 6 p.m.-7:30 p.m.

In this session, we will highlight some of the programs and opportunities that are available to you as an MSU graduate student and introduce you to a framework to help you think about how to identify your career goals and design your graduate experience so that you can achieve them. Learn more and register <u>here</u>.

Graduate Student Success – Wellbeing & Graduate School: The Key to Your Success

Audience: Current Graduate Students

August 30, 2022 — 6 p.m.-7:30 p.m.

In this session, you will learn about the Graduate School's value for well-being as well as practical tips to help you manage your health and well-being while advancing your academic and professional goals. You will also hear about workshops, programs, and resources offered at MSU that support these efforts. Learn more and register <u>here</u>.

Graduate Student Success – Setting Expectations in Graduate Education

Audience: Current Graduate Students

August 31, 2022 — 6 p.m.–7:30 p.m.

This short workshop provides an opportunity to explore strategies for aligning expectations early in your trajectory in graduate school and will inform you about other activities and resources to help you in that task. Learn more and register <u>here</u>.

Google PhD Fellowship

Attention Doctoral Students

August 31, 2022 — Pre-screening form due by 8 a.m.

MSU may nominate up to 4 students for the Google PhD Fellowship. The Google PhD Fellowship Program was created to recognize outstanding graduate students doing exceptional and innovative research in areas relevant to computer science and related fields. Fellowships support promising PhD candidates of all backgrounds who seek to influence the future of technology. Google's mission is to foster inclusive research communities and encourages people of diverse backgrounds to apply. Learn more and apply <u>here</u>.

STEM Ambassadors Program

Attention Doctoral Students

Deadline: September 2, 2022

MSU may nominate up to 4 students for the Google PhD Fellowship. The Google PhD Fellowship Program was created to recognize outstanding graduate students doing exceptional and innovative research in areas relevant to computer science and related fields. Fellowships support promising PhD candidates of all backgrounds who seek to influence the future of technology. Google's mission is to foster inclusive research communities and encourages people of diverse backgrounds to apply. Learn more and apply <u>here</u>.

Climate Change Research Support Program

Attention Current Graduate Students

Deadline: September 9, 2022

MSU graduate students are eligible to submit proposals for the Climate Change Research Support Program. This program is an important initial funding mechanism to support promising new initiatives in key areas of research, scholarship, and multidisciplinary collaboration in response to the global climate crisis. Learn more <u>here</u>.

International Symposium on "Technologies in Brain Cancer"

Audience: All

September 30, 2022 — October 1, 2022

The University of Michigan BioInnovations in Brain Cancer is now accepting abstract submissions and registrations. The symposium will bring together scientists to bridge the gap between brain cancer biology research and novel technological developments in order to advance the diagnosis and treatment of glioma. The symposium will include talks from key opinion leaders from the basic sciences to translation covering a wide range of topics in pharmaceutical sciences, engineering, clinical care, and biomedical innovations. There will be a poster session, exhibitions and networking events in order to share knowledge and build a community of diverse expertise. Learn more <u>here</u>.

Announcements

Course Announcement: BMB 829 New Modular Format for Fall 2022

Biochemistry & Molecular Biology announces the revised and reformatted version of BMB 829, Special Problems in Macromolecular Analysis and Synthesis, in a modular format designed for adaptability to the needs of students with a wide variety of research interests touching on contemporary biomolecular research.

We have many spots still open for all modules. Please enroll soon!!

NOTE: A passing grade in module one is required for enrollment into modules 2,3,4 (and 5 if that ends up being offered this fall). Please go ahead and enroll in these other modules now, however, since the system won't restrict you from enrolling, it's just that you would be dropped from modules 2,3,4 (and/or 5) if module one is not successfully completed beforehand.

COVID-19 Guidance for International Travel

Attention Staff, Faculty, Research Associates, and Graduate Students

To help field questions, Global Safety has developed a guide with recommended steps and resources. This is available as a PDF and on the Global Safety website at <u>www.globalsafety.msu.edu/positive-COVID-19</u>. The first step is to call <u>ISOS</u> for guidance.

Office of Admissions Raising Cutoff Score for Duolingo

Attention Graduate Program Directors, Graduate Academic Program Coordinators, and Students

The Office of Admissions is raising the cutoff score for Duolingo from 105 to 110 for both undergraduate and graduate applicants, with a provisional admission score range of 95 to 105. This change will apply to Fall 2023 applicants and beyond. Learn more <u>here</u>.

WRA 495: Working with Multilingual Writers

Audience: Current Graduate Students

This course aims to raise awareness of how people develop written and digital literacy skills in an additional language and how to apply this knowledge when providing feedback on writing with multilingual writers in university contexts. Learn more <u>here</u>.

MSU Graduate Career Advising Dropbox

Audience: Current Graduate Students

MSU graduate students can now have their professional documents (resumes, cover letters, etc.) reviewed by a Graduate Career Advisor through the Office of Graduate Career Development electronically and without needing to make an appointment. A response with feedback on your document(s) will be emailed with one week. Simply complete this <u>form</u>. You must be signed into Google via your MSU email address to access the form.

Jobs

Tenure Track Assistant Professor of Biology (Plant Biology)

Kenyon College invites applications for a tenure-track position in the Department of Biology starting in July 2022. We seek a broadly trained biologist with expertise in plant biology at the organismal level. To complement current faculty expertise, we seek candidates whose research focuses on plants, including structure, physiology, systematics, biochemistry, plant disease, environmental biology, and related fields. Applicants should demonstrate a commitment to excellent teaching, and we seek candidates who will provide inclusive course experiences, effective mentoring, and strong academic support for our diverse student population. Teaching expectations are 5 courses per year, including introductory biology as well as existing (e.g. Plant Biology or Plant Physiology) and/or new courses at the upper level. Opportunities exist for interdisciplinary teaching and scholarship within and outside the sciences. We expect a vigorous research program that involves undergraduate students, leads to publications, and has potential to attract extramural funding. Applicants should hold a Ph.D degree; post-doctoral experience is preferred. We encourage applications from all groups historically underrepresented in the sciences. A full overview of the position can be found on the <u>application page</u>.

All application materials must be submitted electronically through Kenyon's employment website: <u>http://careers.kenyon.edu</u>. Review of applications will begin on September 12, 2022. Please direct questions to Wade Powell, Search Committee Chair (powellw@kenyon.edu).

Lead Scientist I — Discovery (Program Lead)

Kalsec in Kalamazoo, Michigan, seeks a Lead Scientist to lead research efforts for their Novel Natural Compound Discovery platform. The ideal candidate would have experience in natural products chemistry/Pharmacognosy. A bit about Kalsec: "Kalsec provides natural Taste & Sensory Solutions, Colors, Food Protection and Advanced Hop Products to the food and beverage industries. We capture the best nature has to offer and utilize over 60 years of experience and industry leading innovation to make food and beverage products look better, taste better and last longer. Family owned and headquartered in Kalamazoo, Michigan since 1958, Kalsec has regional offices, laboratories and sales teams locations in North America, Europe and Asia. As a certified B Corp, Kalsec makes ethical and sustainable decisions that serve our customers, employees, communities and the environment. We are proud to be using our business as a force for good. This position is within Global R&D on the Discovery & Open Innovation team, which leads our long-term innovation efforts." See the job posting and apply here.

Postdoctoral Research Associate Position

Rob Quinn in BMB seeks a Research Associate to work on an NIH funded project to understand the role of the lung microbiome in Cystic Fibrosis. Patients with this disease battle complex lung infections throughout their lifetime and our laboratory is studying how microbial metabolism and dynamics may be responsible for the progression CF disease. This project involves a multi-faceted approach including microbial culture models of the lung environment, big data multi-omics analysis, and mathematical modelling. Skills in microbiology and multi-omics data generation, including mass spectrometry and high-throughput nucleic acid sequencing, are highly desirable. The research associate will work tightly with clinicians and other scientists in the laboratory to develop a comprehensive approach to understanding these important clinical events of CF disease. This position will involve generation and analysis of metabolomics and microbiome sequencing data. There will also be a large culture-based approach involving multispecies biofilm communities and perturbations of the lung microbiome in a mucus-plugged bronchiole microcosm. This position will require an understanding of multi-variate statistics and methods for integration of multi-omics datasets. Experience with computer coding languages for data analysis such as Python and R are highly desirable. The Research Associate will also gain experience in mentoring undergraduates and graduate students in scientific studies related to the project. Apply at MSU Careers posting <u>799757</u>.

Postdoctoral Research Associate Position

The lab of Tommy Vo, BMB, is seeking to hire a postdoc available to study the regulation of epigenetic histone modifications during development and stress response. Available projects in the lab will employ genetic, genomic, molecular, and biochemical approaches to understand the mechanistic role of transcription machinery in specifying and modulating histone modifications in the fission yeast, *Schizosaccharomyces pombe*. The position is in a young lab in which the research associate will uniquely benefit from experiencing, first-hand, a new lab environment. Contact Tommy Vo for information votommyv@msu.edu. See job posting and apply at this link.

Postdoctoral Research Associate Position

The Jin He lab in Biochemistry and Molecular Biology is seeking a Research Associate to use mouse models to study the epigenetic mechanisms in brain development and neurodevelopmental diseases such as autism spectrum disorder, intellectual disability, and attention deficits/hyperactivity disorder. A PhD is required in Neuroscience, Genetics, Molecular Biology. Please contact Jin He directly hejin1@msu.edu. See the job posting and apply at this <u>link</u>.

Paid Research Opportunity for Undergraduate and Graduate Students

The Guys/Girls Opt for Activities for Life (GOAL) trial research team is in immediate need of students to assist with this large-scale NIH-funded study. We are starting in 4 urban schools with approximately 63 adolescent-parent dyads per school in the fall of 2022 and will continue into the spring of 2023. We are recruiting for Data Collectors, Physical Activity and Nutrition Intervention Coaches (1-2 days/week for 13 weeks), Intervention Leads (1-2 days/week for 13 weeks), Dietary Recall Specialists, as well as Process Evaluators. The positions that require transportation to schools will have transportation provided.

These research assistant positions offer \$12.00-15.00/hour, in addition to gaining invaluable research experience to strengthen a resume.

Students can contact the Project Manager Aisha Hilliard of the GOAL trial at hillia51@msu.edu if interested in discussing these outstanding opportunities.

Student Position: BMB Kaguni Lab

Seeking a student employee for general lab duties, dishwashing, etc. Contact Dr. Jon Kaguni kaguni@msu.edu.

Recent Publications

- Bird, K.A., Jacobs, M. *et. al.* "Parental origins of the cultivated tetraploid sour cherry (*Prunus cerasus* L.)." *Plants People Planet.* (2022).
- Bibik, J.D., Weraduwage, S.M., Banerjee, A., Robertson, K., Espinoza-Corral, R., Sharkey, T.D., Lundquist, P.K., Hamberger, B.R. "Pathway engineering, re-targeting, and synthetic scaffolding improve the production of squalene in plants." *ACS Synthetic Biology* Vol. 11, Iss. 6 (2022).
- Tinney, K.R., Dover, J.A., Doore, S.M., and Parent, K. "Shigella viruses Sf22 and KRT47 require outer membrane protein C for infection." Biochimica et Biophysica Acta (BBA) Biomembranes Vol. 1864, Iss. 7 (2022).
- Rossi, M., Altea-Manzano, P., Demicco, M. *et. al.* "PHGDH heterogeneity potentiates cancer cell dissemination and metastasis." *Nature* 605, 747–753 (2022). https://doi.org/10.1038/s41586-022-04758-2

See story on Sophia Lunt's collaborative research on molecular workings of a certain form of metastatic Breast cancer in <u>MSU</u> <u>Today</u>.

