

ADVANCE: WISE@OU NEWSLETTER

WOMEN IN SCIENCE AND ENGINEERING AT OAKLAND UNIVERSITY
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INSIDE THIS ISSUE:

Welcome to New Faculty

Recent Research Grant Awardees

Updated Guide for STEM Faculty

Support for WISE@OU Sustained on Campus



The WISE@OU program was funded from 2011 to 2016 by an [NSF ADVANCE PAID Grant](#). For the last four years, the WISE@OU program has been nurturing newly hired STEM faculty by inviting them into our cohort mentoring program. We host luncheons and workshops to provide networking opportunities and address topics such as grant-writing and the tenure process. These events help form interdisciplinary collaborations and allow faculty to share advice and experiences with each other. We have also hosted events and workshops for mid-career faculty as well as department chairs. Through sharing best practices about faculty

recruitment and retention, mentoring, and work-life balance, we have crafted a faculty development program to assist STEM faculty. A major goal has been to encourage OU to **sustain and expand** the valuable faculty initiatives developed by WISE@OU. This was also prioritized by the Goal 2 (Research) Committee of the strategic planning initiative. We are pleased that the Provost has funded the program assistant staff position associated with WISE@OU. The WISE@OU Leadership Team looks forward to working with the OU administration to shape a more broadly implemented program, one that can impact all faculty, while continuing to support the special needs of our junior STEM faculty.



Upcoming Events

Internal Award Funding Strategy Workshop: Preparing for the URC Awards – September 16

- Friday, September 16, 2016, 11:00 a.m. until 1:00 p.m. in the Lake Superior room of the Oakland Center. Hosted by the Office of Research Administration, this workshop will focus on the different University Research Committee (URC) awards. Hear best strategies to improve your chances of securing an award. An overview of the guidelines for applications and time for questions will be provided. All faculty are welcome to attend. Lunch will be provided. Register by September 14 at the [UHR training website](#), under “Faculty Workshops,” or contact Sue Willner, willner@oakland.edu or x. 4111.

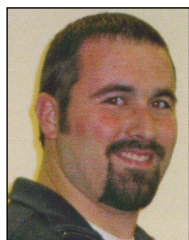
STEM-Focused Workshops, co-hosted by WISE@OU and CETL – October 20 and November 14

RSVP on the CETL website: oakland.edu/cetl/faculty-development/workshops

- **Best Practices in Mentoring Undergraduate Researchers, Thursday, October 20, 2016.** In 200A Elliott Hall at noon until 1:30 p.m. In this faculty panel discussion, we will share techniques to improve mentoring of undergraduate researchers, explore the challenges of mentoring, and highlight opportunities for undergraduate research. This event will be coordinated by Brad Roth, with lunch provided by CETL.
- **Best Practices in Teaching Written & Oral Communication Skills to STEM Students, Monday, November 14, 2016.** In 200A Elliott Hall at noon until 1:30 p.m. This workshop will explore different approaches used by faculty at OU. There will be a discussion of best practices for improving STEM students’ written and oral communication abilities in laboratory and capstone courses. This event will be led by Laila Guessous, with lunch provided by CETL.

Welcome to New STEM Faculty

We are pleased to welcome these new tenure-track assistant professors in the College of Arts and Sciences!



- **Michael Lawlor**, Mathematics and Statistics – Dr. Lawlor received his doctorate degree in statistics from Purdue University. He specializes in statistics, probability and finance. His varied projects include working on calcium distribution requirements through bone growth modeling and working with the automotive industry on miles per gallon calculations.



- **Anushaya Mohapatra**, Mathematics and Statistics – Dr. Mohapatra earned a Ph.D. in mathematics from the University of Houston, later joining Oregon State University as a postdoctoral scholar in mathematical biology. She specializes in dynamical systems and mathematical biology. She has worked in theoretical neuroscience and biological modeling.



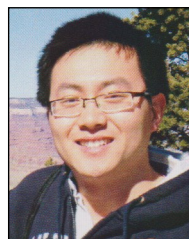
- **Sang Hoon Rhee**, Biological Sciences – Dr. Rhee received his Ph.D. in biochemistry from Louisiana State University in Baton Rouge. He specializes in immunology and he taught at Harvard Medical School and University of California, Los Angeles. His research focuses on how gut microorganisms regulate immunity.



- **Colin Wu**, Chemistry – Dr. Wu earned his doctorate degree in biochemistry from the Washington University School of Medicine. His areas of expertise include DNA replication, recombination, and repair; cancer and Fanconi anemia; and methods to study the interactions between proteins and DNA. His research revolves around how mutated proteins that repair DNA contribute to the early onset of genetic disorders.



- **Ziming Yang**, Chemistry – Dr. Yang received his doctorate degree from Arizona State University. He was a postdoctoral research fellow at Oak Ridge National Laboratory, where he was awarded outstanding postgraduate researcher. His expertise includes organic geochemistry, biogeochemistry and environmental chemistry.



- **Wei Zhang**, Physics – Dr. Zhang completed a dual Ph.D. in materials science and nanotechnology at the University of Washington. He worked at Argonne National Laboratory, and has been an active mentor for students in universities and national labs.

Welcome to New STEM Faculty

We are pleased to welcome these new tenure-track assistant professors in the School of Engineering & Computer Science!



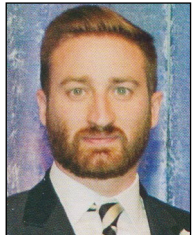
- **Shadi Alawneh**, Electrical and Computer Engineering – Dr. Alawneh earned his doctorate degree in computer engineering from Memorial University. His specialties include general purpose computing on graphics processing units, high-performance computing, parallel processing architecture and applications, simulation, software design and specification. Since 2014, he has been a research engineer at C-CORE.



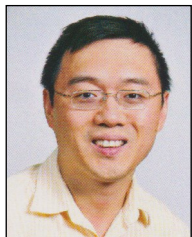
- **Ali Arefifar**, Electrical and Computer Engineering – Dr. Arefifar received his doctorate degree in energy systems from the University of Alberta and worked as a Smart Grid researcher at the University of British Columbia prior to joining Oakland University. His research focuses on the optimal planning and operation of smart grid distribution systems, particularly as they apply to renewable energy applications, including solar PV.



- **Mehdi Bagherzadeh**, Computer Science and Engineering – Dr. Bagherzadeh received his Ph.D. in computer science from Iowa State University. He is the lead researcher on Panini and Ptolemy, verification projects that will make concurrent and event-based engineering easier.



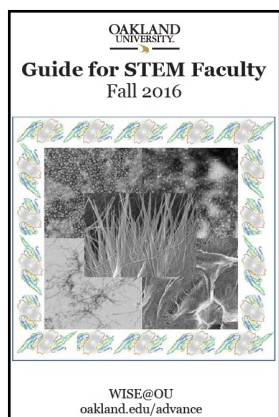
- **Dan DeVescovo**, Mechanical Engineering – Dr. DeVescovo completed his doctorate degree in mechanical engineering from the University of Wisconsin-Madison. He specializes in internal combustion engines, advanced combustion strategies, alternative fuels, combustion remodeling, and vehicle emissions and regulations.



- **Anyi Liu**, Computer Science and Engineering – Dr. Liu received his Ph.D. in information technology from George Mason University. His research focuses on information security, intrusion detection and prevention, digital forensics, malware analysis and defense, steganography and privacy.



- **Jonathan Maisonneuve**, Mechanical Engineering – Dr. Maisonneuve earned his Ph.D. in electrical engineering from Concordia University. His areas of expertise include renewable energy systems, osmotic power, organic solar cells, combined energy and food production, and sustainability.



Updated Guide for STEM Faculty

WISE@OU has updated the *Guide for STEM Faculty* for the 2016-2017 year. It includes STEM department contacts, research centers, grant support, lab start-up support, internal/external funding, family-friendly information, and more. The guide is posted online on the [WISE@OU website](http://www.wise@ou.edu). This year's cover image is courtesy of Sanela Martic, from the Chemistry department. The cover shows transmission electron images of the misfolding peptides and proteins related to neurodegeneration.

Recent Research Grant Awardees

We are pleased to highlight these recent research grants for OU's junior STEM faculty.



Fabia Battistuzzi (Biological Sciences) – NASA, \$581,213. This 3-year grant will fund Dr. Battistuzzi's research on innovative molecular timing applications to obtain accurate histories of life. Her goal is to reconstruct a chronology of life on earth using molecular dating methods, with an emphasis on pre-Cambrian microbial life that cannot be studied in the geological record.



Mary Jamieson (Biological Sciences) – USDA/NIFA, \$59,277. Dr. Jamieson's project, Impacts of Herbaceous Bioenergy Feedstock Production Systems on Bee Communities, will investigate potential impacts of land use on pollinator assemblages in Colorado agricultural ecosystems.



Sanela Martic (Chemistry) – NIH, \$433,433. This 3-year grant will support research on the mechanism of anti-tau antibody effects on tau biochemistry. Dr. Martic's project addresses pathologies of the protein tau, thought to play a role in neurodegenerative diseases including Alzheimer's disease. Her team will address several issues of tauopathies and the role of immunotherapies to identify mechanisms of anti-body based inhibition.



Randal Westrick (Biological Sciences) – NIH, \$433,481. This funding supports Dr. Westrick's study of the genetic regulators of plasminogen activator inhibitor-1 in mice. Elevated plasma plasminogen activator inhibitor-1 (PAI-1) is associated with thrombosis, which causes the majority of deaths due to cardiovascular disease. Alexander Johnston, an undergraduate student working with Dr. Westrick, received a summer fellowship from the American Heart Association to work on the same research project.



The WISE@OU program was supported by a National Science Foundation ADVANCE Partnerships for Adaptation, Implementation, and Dissemination (PAID) grant ([Award Number 1107072](#)).