ADVANCE: WISE@OU Newsletter

WOMEN IN SCIENCE AND ENGINEERING AT OAKLAND UNIVERSITY
WWW.OAKLAND.EDU/ADVANCE

SEPTEMBER 2015

WISE@OU Update

The Women in Science and Engineering Program (WISE@OU) has been active since 2011. This year marks our no-cost extension year, and the final year of our activities under the NSF ADVANCE program. A major goal for our last year is to encourage OU to sustain the valuable faculty development initiatives developed by WISE@OU. Your support in that endeavor would be invaluable. We encourage you to contact us with ideas regarding sustainability and to open discussion of such with your colleagues.

During the past year, WISE@OU hosted valuable programs for faculty that provided opportunities for networking, mentoring, and career planning. At our **cohort mentoring sessions** with newly hired STEM assistant professors, colleagues met with each other and interacted with senior STEM faculty and relevant administrators and staff. We also hosted **workshops** to provide tips and strategies about applying for NIH awards and the NSF CAREER Award. We hope this type of group mentoring can be extended across campus.

Our **STEM Series workshops with CETL**, which are open to all faculty, focused on engaging students in the classroom, supervising research, working with teaching assistants, and the best practices in scientific writing. We thank the following CAS and SECS faculty members for assisting in 2014-2015 events: Alberto Rojo, Shailesh Lal, Jia Li, Scott Tiegs, Xia Wang, Fabia Battistuzzi, Clara Castoldi, Darrin Hanna, Nessan Kerrigan, Jo Reger, Libin Rong, and Jennifer Vonk.

New initiatives of 2014-2015 focused on mid-career, post-tenure faculty across campus. Our guest speaker from Michigan State University, Dr. Deborah DeZure, discussed **productive decision making** at mid-career with over 70 faculty members and administrators. She also met with department chairs to provide an overview of mentoring. We hosted two follow-up events in the Winter semester: a **workshop** about goal setting and a **panel** on best practices for becoming a full professor. We thank Provost James Lentini, CAS Dean Kevin Corcoran, SECS Interim Associate Dean Beth Zou, and David Dulio (Political Science) for their participation on the panel. The audiences at our mid-career events indicated **broad faculty interest**: 25% were Humanities faculty, 19% STEM, 17% Social Sciences, 17% Health Professions, 13% Education, and 9% Business. WISE@OU was pleased and grateful to have the support and participation of the Provost at these mid-career events.

WISE@OU also worked with the AAUP to support videotaping of the **Tenure Workshop** (see video online) and partnered with Women and Gender Studies for the **"Women in STEM" event**, organized by Valerie Palmer-Mehta for Women's History Month. We also collaborated with Academic Human Resources (AHR) to create the Resources for Work-Life Satisfaction Brochure, which includes information on leave options, benefits, and institutional support for individuals and families.

If you have comments or ideas for sustainability, please contact Kathy Moore (kmoore@oakland.edu, x. 2338) or Leanne DeVreugd (ldevreug@oakland.edu, x. 4516).

"The efforts of WISE@OU over the past few years have really made [a] difference, not only regarding the opening of dialogue on challenging related issues, but also regarding the creation of real, tangible programs and initiatives that, in the end, create a much healthier work climate for all demographics. And the bottom line is that happy faculty members are not only more productive but also more engaged in their institutional communities. In that end, that is a win-win for administration, faculty, students, families, and the surrounding community."

- Faculty member's comment from WISE@OU survey

Upcoming Workshops and Deadlines

CETL Workshops—WISE@OU hosts workshops with the Center for Excellence in Teaching and Learning (CETL). Register at: www.oakland.edu/cetl. See past workshops at: wwwp.oakland.edu/advance/resources/ouresources.

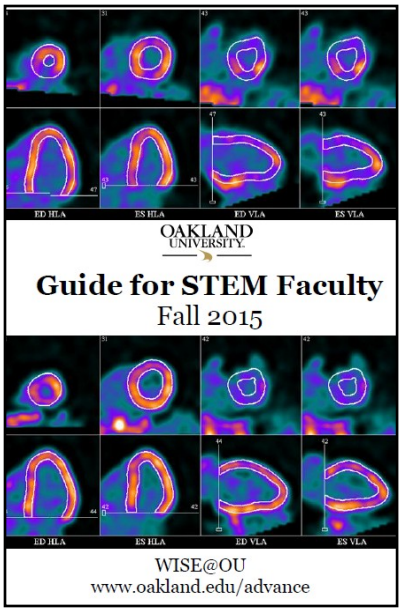
Supporting Students to be Successful in STEM Courses
Thursday, October 1, 12-1 p.m., 200A Elliott Hall

Balancing Teaching and Research in STEM
Tuesday, November 24, 12-1 p.m., 200A Elliott Hall

University Research Committee (URC) Fellowships
Preparing for the URC Awards Workshop, Friday, September 18, 12-2 p.m,
Lake Michigan Room, Oakland Center. Lunch is included.

In this workshop, you will hear about the best strategies to improve your chances of securing a URC award. Hosted by the chair of the URC, Debra McGinnis, and the Interim Vice Provost for Research, Arik Dvir. Register by Monday, September 14, at the UHR training website under "Faculty Workshops." Contact Sue Willner at willner@oakland.edu if you have questions. The deadline for URC Fellowships is **Monday, October 12**. These fellowships can be especially helpful during the summer months. Apply at: wwwp.oakland.edu/research.

If you have questions about your grant proposal or application, contact WISE@OU Leadership Team members Kathy Moore (kmoore@oakland.edu), Brad Roth (roth@oakland.edu), or Laila Guessous (guessous@oakland.edu) to discuss review options.



Cover image courtesy of Jing Tang, Electrical and Computer Engineering

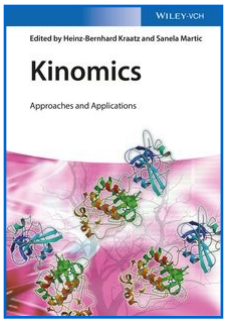
WISE@OU has updated the ***Guide for STEM Faculty*** for the 2015-2016 year. It includes STEM department contacts, research centers, grant support, lab start-up support, internal/ external funding, family-friendly information, and more.

Sanela Martic Funded by ACS

Sanela Martic (Chemistry) was awarded a grant of $55,000 from the American Chemical Society Petroleum Research Fund (ACS PRF) for 2015-2017. The goals of the project include: to characterize bulk electrochemical properties of gasoline, to establish the relationship between structure and oxidation/reduction potential of oxidation inhibitors, to determine the efficiency of the oxidation inhibitor, and to detect and quantify the peroxides in gasoline. The proposed project will use a new carbon nanotube-based platform for qualitative and quantitative characterization of oxidation inhibitors and gasoline properties aimed at improving gasoline stability, performance and safety. The proposed research will improve understanding of the chemistry of gasoline and positively impact the development of high-performance motorized vehicles.

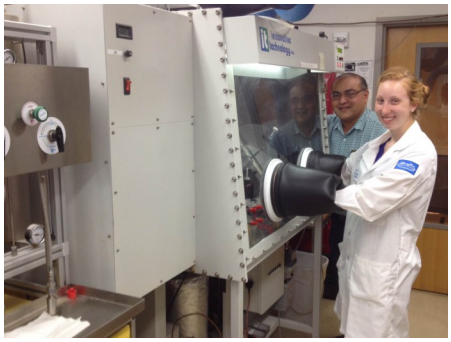
She also received the 2014-2015 Innovation in Teaching Grant from CETL for her work on developing instructional videos about using molecular modeling kits.

She was recently published as an editor of *Kinomics: Approaches and Applications*. The book is a comprehensive introduction to this emerging field.



Ferman Chavez Awarded NIH Grant

Ferman Chavez (Chemistry) was awarded a grant by the National Institute of General Medical Sciences, one of the National Institutes of Health. His 3-year grant will support mechanistic studies on bioremediation, and will provide $334,168 for the funding period. Bioremediation is the intentional use and manipulation of living organisms to remove environmental pollutants. The combination of rapid growth rate, global abundance and high rate of mutations enables bacteria to adapt to utilize pollutants as a food source. The ultimate goal of his research is to make molecules that reproduce the structure and reactivity of these enzymes in efforts to understand how they are able to decompose these environmental contaminants. Catalysts developed in this work may be able to convert crude organic compounds (i.e. oil) into precursors for more useful products such as pharmaceuticals, flavors, and fragrances. *Pictured: Ferman Chavez and Angela Foley, Biochemistry major.*



SECS News

Sebnem Onsay and **Laura Dinsmoor** (Computer Science and Engineering) received an $8,000 mini-grant for the NCWIT Extensions program to increase the number of female students and under-represented groups that enroll in Computer Science, Information Technology and Mechanical Engineering. Implementations of this on-going project will start in Winter 2016. **Onsay** also received a $3,000 Teaching Grant Proposal from CETL to apply different teaching methods to the introductory engineering class EGR 141, which will enhance the freshmen first year experience. Find out more about CETL grants on the CETL website.

Welcome to New STEM Faculty

Erik Fredericks, Assistant Professor, Computer Science and Engineering. He researches the application of evolutionary computation to cyber-physical systems, specifically those that can be modeled as self-adaptive systems (SAS). Erik explores how software techniques can be augmented with evolutionary search, in the areas of software modeling, requirements analysis, and run-time testing. He joins OU from Michigan State University.

Mary Jamieson, Assistant Professor, Biological Sciences. Her research aims to understand and predict the effects of global environment change on species interactions and biological diversity. She focuses on plant and insect response to global change drivers, including nitrogen deposition, biological invasions, climate change, and land-use change. Mary was a research scientist at the University of Wisconsin-Madison before joining the faculty at OU.

Peng Zhao, Assistant Professor, Mechanical Engineering. His research focuses on areas including combustion and reacting flows, internal combustion engines, chemical kinetics, aerosol and environmental science, and energy conversion. Peng is pursuing research for sustainable usage of fossil and bio fuels with high efficiency and low emissions. He was previously a research assistant at Princeton University.

WISE@OU would like to welcome **Arik Dvir** as Interim Vice Provost for Research. He is an Associate Professor and served as Chair of Biological Sciences. We also welcome **Claudia A. Petrescu** as Dean of Graduate Education. She comes from Eastern Michigan University and has extensive experience in leadership and planning.