



WOMEN IN SCIENCE AND ENGINEERING  
SYRACUSE UNIVERSITY



# Newsletter Spring 2015

## WiSE Celebrates Fifteenth Anniversary at the Chancellor's House



Chancellor Kent Seyverud and Dr. Ruth Chen

On September 18, 2014, Women in Science and Engineering celebrated its 15th Anniversary at a tea reception hosted by Chancellor Kent Seyverud and Dr. Ruth Chen at the Chancellor's House. Dr. Chen is a Professor of Practice in both the Biomedical and Chemical Engineering (BMCE) and Civil Engineering (CIE) departments.

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Chancellor's House. Dr. Chen is a Professor of Practice in both the Biomedical and Chemical Engineering (BMCE) and Civil Engineering (CIE) departments.

Attended by 100 faculty, post docs, and graduate and undergraduate women in STEM and their allies, the event was a homage to the efforts of many and a challenge to continue the unique interdisciplinary community that supports persistence and excellence for women in STEM.

Co-founders Shobha Bhatia and Cathryn Newton offered remarks, as did WiSE Co-Director, Karin Ruhlandt, now Dean of the College of Arts and Sciences. All three speakers emphasized the significant changes brought about since WiSE's founding, particularly the increase in the numbers of women faculty in STEM related fields.

Newton remarked on the future as well, "Stasis is not an option. WiSE at Syracuse must press forward swiftly in our increasingly competitive national and international context."



WiSE Co-Directors Shobha Bhatia (left), Karin Ruhlandt (center), and Co-founder Cathryn Newton.

## 2015 Norma Slepecky Undergraduate Research Award Ceremony



Dr. Noelle Eckley Selin  
2015 Norma Slepecky  
Memorial Lecturer

The annual Norma Slepecky Memorial Lecture and Undergraduate Research Awards Ceremony took place Friday, April 24th in Heroy Auditorium. The series is named for the late Dr. Norma Slepecky, a renowned auditory neuroanatomist at Syracuse University. Slepecky was a professor in the College of Engineering and Computer Science, as well as a member of the University's Institute for Sensory Research. Prior to her passing in 2001, family, friends, and colleagues joined together to endow the Lectureship and Prize, which is overseen by the University's Women in Science and Engineering (WiSE) program. The Slepecky Undergraduate Research Award celebrates the achievements of undergraduate women researchers in the STEM disciplines. The first award was given in 2004.

Dr. Noelle Eckley Selin, the keynote speaker, is an Assistant Professor of Engineering Systems and Atmospheric Chemistry at MIT. The topic of her lecture was, "Mercury Pollution: Tracking Emissions to Impacts." Selin's research uses atmospheric chemistry modeling to inform decision-making on air pollution, climate change and hazardous substances such as mercury and persistent organic pollutants (POPs). During her visit, Selin also spoke with smaller groups of faculty, graduate students, post-doctoral fellows, and members of the interdisciplinary water initiative. WiSE co-sponsored the lecture with the Civil & Environmental Engineering Department and the Water Initiative.

Dr. Ralph Slepecky, Norma's spouse, was present to greet the awardees along with Dr. Shobha Bhatia, Director of WiSE. The award ceremony was officiated by Dr. Linda Ivany, the Prize Chair. First prize was awarded to Kewei Xu (Chemistry, SU) for her work on bromine-sensitized solar photolysis of carbon dioxide. She is the first of three authors of a forthcoming article in *The Journal of Physical Chemistry A*, which will present the findings of this research. Xu will begin her Ph.D. this fall at California Institute of Technology. Two second place prizes were awarded to Emily Tucci (BMCE, SU) and Jessica Ciesla (Chemistry, SUNY ESF). Tucci's biomechanical research investigates changes in the wrist joint under different types of exercise motions, and makes recommendations related to rehabilitation practices for those undergoing treatment for wrist ligament injuries. Ciesla's research focuses on biological polymer production and how polymers might be functionalized for use as nano drug delivery vehicles.



Kewei Xu with Drs. Mark Braiman, Shobha Bhatia, and Ralph Slepecky



Emily Tucci with Drs. Shobha Bhatia and Ralph Slepecky



Jessica Ciesla with Drs. Shobha Bhatia, Mark Teece, and Ralph Slepecky

## Women in Motion



**Karin Ruhlandt (Chemistry)** selected as the Dean of the College of Arts and Sciences.



**Liz Liddy (i-School)** appointed Interim Vice Chancellor and Provost of the university.



**Joanna Masingila (Math Education)** named Dean of the School of Education.



**Cathryn Newton (Earth Science)** appointed a Provost's Faculty Fellow.



**Barbara Stripling (i-School)** named iSchool Senior Associate Dean.



**Linda Ivany (Earth Sciences)** elected a fellow of the Paleontological Society.



**Lisa Manning (Physics)** received a Cottrell Scholar Award to study the mechanics of how biological cells move in tissues.



**Loredana Lanzani (Math)** received a grant from NSF to study complex variables and partial differential equations.



**Aesoon Park (Psychology)** received NIH grant to study health behaviors of African-American high school students.



**Jedidah Isler (Physics)** named TED Fellow for the Class of 2015.



**Ping Zhang (i-School)** named American Council on Education Fellow.



**Katie Cadwell (Chemical Engineering)** received a 2015 Meredith Teaching Award.



**Svetoslava Todorova (Civil and Environmental Engineering)** served as science observer for the UN

Intergovernmental Negotiations Committee on Mercury in Thailand.



**Laura Lautz (Earth Science)** received \$3 million NSF grant for graduate-level training program called Education Model Program on Water-Energy Research (EMPOWER).



**Suzanne Baldwin (Earth Science)** served on an NSF sponsored panel that recently reported on the role of geochronology in transformative geologic research in Washington D.C.



**Shikha Nangia (Biomedical and Chemical Engineering)** was awarded CAREER Grant of \$500K from NSF for 'Enabling Transport Across the

Blood-Brain Barrier by Engineering Thermodynamically Favorable Pathways.'



**Katharine Lewis (Biology)** received an award (with James Hewett) from the Research Foundation of The State University of New York for the project

'Neurotoxicity of Early Life Exposure to Contaminants Isolated from Onondaga Lake Bed Sediments: Hill Collaboration.'



**Rebecca Bader (Biomedical Engineering)** received a research award from the Research Foundation of The State University of New

York for 'Bio-based polymeric strategies for improved cancer drug delivery.'

## WiSE Women of Color in STEM



The WiSE Women of Color in STEM (WoC in STEM) aims to build community among women from underrepresented groups in STEM. WoC in STEM is focused on undergraduate students, with graduate students and postdocs serving as mentors. During the fall semester, the founding group shared the challenges they face and their hopes for a support system of peers, mentors, and faculty that understand and can guide them as they face those challenges.

In the fall, WiSE provided programming, as well as opportunities for formal and informal mentoring. WiSE sponsored a panel of STEM faculty who shared with the WoC in STEM group opportunities and strategies for pursuing undergraduate research

throughout the school year and summer.

During the spring semester, the women began planning a community service project. Once a month, beginning in March, the group tutored middle and high school students at the Syracuse Northeast Community Center.

The group has also hosted a series of virtual panels, the VANGUARD series, with



women of color in STEM from industry and academia. The panelists discussed their own experiences with bias along with strategies to meet the resulting challenges. These successful women provide rich information and seasoned advice on what motivates them

to persist, find mentors, build a strong social network and succeed in their chosen fields.

In its inaugural year, WiSE and Jasmine Johnson received awards from the Gaia Chapter of Mu Sigma Upsilon Sorority, Inc. on March 29, 2015. WiSE was honored for its dedication to fostering the success of women in STEM that inspires women to achieve degrees of higher education and Jasmine for her efforts in establishing the WiSE Women of Color in STEM program.

WoC in STEM is a pilot program for a proposed new series of WiSE undergraduate programs called Excellence in STEM Programs (ESP). These programs will continue WiSE's mission to support the excellence of women in STEM and equip them to persist towards graduation and beyond.

### MISSION

*To empower women of color in STEM by building community, fostering a sense of belonging, and promoting academic, professional, and interpersonal excellence.*

## WiSE Undergraduates Achievements



Alexis Peña '16

**Alexis Peña (Bioengineering, '16)**, a founding member of WiSE Women of Color in STEM, has been named a 2015-2016 SU Remembrance Scholar, which

recognizes undergraduate academic achievement, citizenship, and service to the community. Alexis will serve as one of two SU senior class marshals for the Class of 2016. She earned a research award in November at the Annual Biomedical Research Conference for Minority Students and a first place research award in February at the Emerging Researchers National Conference in STEM.

**Ashlee Thibaud (BMCE, '16)** was an award winner at the Collegiate Science & Technology Entry Program's (CSTEP) 23rd Annual Statewide Student Conference held

April 17-19 for her poster presentation on "Sonic Sensitivities of Leukemia Cells with Combinations of Cytoskeletal-directed

Agents and with Agents Affecting Membrane Cholesterol Content."

**Cindy Xu** received an honorable

mention for her Environmental Science presentation, "Modification of Hemicellulose Production in Poplar."

The Gaia Chapter of the Mu Sigma Upsilon Sorority, Inc., presented a Certificate of Recognition to **WiSE** and to **Jasmine Johnson (Chemistry, '16)** at its annual awards banquet on March 29th. Mu Sigma Upsilon is a student organization designed to recognize, support, and foster



Ashlee Thibaud (left) and Cindy Xu (right) were both WiSE Learning Community Members

the success of women from diverse backgrounds who are seeking college degrees. SU's Gaia Chapter awarded **WiSE** for its "dedication to fostering the success of women in STEM that inspires women to achieve degrees of higher education." The Gaia Chapter of Mu Sigma Upsilon Sorority, Inc. recognized **Jasmine Johnson (Chemistry, '16)** at its annual awards banquet on March 29th for her role in galvanizing the community to respond to the needs of women of color in STEM.



Bria Harris (second from left) and Jasmine Johnson (second from right) with leaders of the Gaia Chapter of Mu Sigma Upsilon, Inc.

## WiSE-FPP 2014-2015 HIGHLIGHTS



Current and Former WiSE-FPP Associates at WiSE Tea

The WiSE-FPP program offered eleven events this year in three categories: informal mentoring breakfasts with visiting women scholars; panel discussions with SU faculty discussing topics related to persisting in the Ph.D. program and future career success; and professional development programs focusing on writing, conference presentations, and preparing materials for the job search. Two workshops co-sponsored with Career Services and the Graduate School, one on preparing resumes and one on preparing CVs, were open to all graduate students in STEM.

Breakfast guests included Hashima Hasan, the James Webb Space Telescope Program

Scientist and the Education and Public Outreach Lead for Astrophysics at NASA; Molly Shoichet, the Tier 1 Canada Research Chair in Tissue Engineering and is University Professor of Chemical Engineering & Applied Chemistry, Chemistry and Biomaterials & Biomedical Engineering at the University of Toronto; and Noelle Eckley Selin, the Esther and Harold E. Edgerton Career Development Assistant Professor of Engineering Systems and Atmospheric Chemistry at MIT (see Norma Slepceky article on the cover).

These guests shared the story of their career path with the FPP associates and emphasized the importance of networking, creating a niche for one's self, and making family and geographical preferences a priority in the job search process.

SU Faculty are the backbone of our program and this year was no exception. Laura Lautz (EAR), Jay Henderson (BMCE), Laura VanderDrift (PSY), John Tilliotson (SCE), and Lisa Manning (PHY) offered strategies and practical advice on managing the dissertation process. Shobha



Faculty Serving on Dissertation Management Panel

Bhatia (CIE) led a workshop on the Art of Science Presentations in November. Shikha Nangia (BMCE) and Qinru Qiu (MAE) gave presentations on writing research statements and securing excellent recommendations. Marie Garland (SU ADVANCE), Shobha Bhatia (CIE), Dawn Johnson (SCE), and Kate Lewis (BIO) served on a panel to discuss gender issues that emerge in the workplace, the lab, and the classroom.

Looking ahead, WiSE has received funds from SU's Graduate Student Organization to offer a new program during the 2015-2016 academic year for STEM graduate women and minority men, entitled "Excelling at Communicating Your Science." Watch your email for more information.

## Congratulations WiSE 2015 Women Graduates



**Katelyn Buchanan (B.S., BMCE)** has been awarded the Boehringer Family Master of Engineering Award for graduate study at Cornell University. Katelyn also received the Earl H. Devoe Prize for Outstanding Undergraduate Research from the College of Engineering and Computer Science at Syracuse University.



WiSE-FPP Alumna, **Kelly Henry (Ph.D., Chemistry)**, has accepted a position as a Post-Doctoral Research Fellow at Memorial Sloan Kettering Cancer Center in New York, NY. She will be working in the lab of Jason Lewis as a radiochemist doing targeted cancer imaging.



WiSE-FPP Alumna, **Caroline Rufo (Ph.D., Chemistry)**, has accepted a position as a Post-Doctoral Research Fellow at Yale University Medical School in the laboratory of Tony Koleske. Her research will seek to better understanding of the role of circulating tumor cells in breast cancer metastasis.

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