

## WiSE-FPP 2013-2014

The **WiSE Future Professionals Program (WiSE-FPP)** is pleased to recognize the **2013-2014 cohort!** This year we have thirty-five new and returning associates (10) in the program—our largest group to date. These associates were nominated by 32 faculty members, some of whom nominated more than one.



The Associates are PhD students from multiple disciplines across STEM. There are 11 from the College of Engineering and Computer Science, 16 from Arts and Sciences, 5 from STEM related departments in other colleges, and 3 SUNY-ESF students. The group is equally diverse in nationality; this year's WiSE Associates hail from Bolivia, China, India, Iran, Malaysia, Poland, Kenya,

Korea, Turkey, and the US.

**WiSE-FPP programs** impacted almost 100 additional graduate students and post-docs in addition to the FPP Associates. Events throughout the year involved 51 different faculty, campus, and community professionals who gave talks, provided mentoring, and advised on career preparation.

2013-2014 has been an incredibly productive year filled with opportunities for achieving our goals through partnerships with faculty, academic departments, and student services that have enriched our offerings and broadened our impact.

The WiSE FPP/Faculty luncheon, held in September, was an opportunity for women

graduate students to meet and network with women faculty. Ice-breakers developed by faculty member, Kate Lewis (Bio) facilitated conversation and laughter.

Faculty members Donna Korol (Bio), Melissa Green (MAE), and SU



ADVANCE Director Marie Garland served on a panel discussing peer-mentoring and critiquing, which focused on how to give and receive feedback constructively.

In January, faculty members, Shikha Nangaia (B/CENG), Qinru Qiu (MAE), and Laura VanderDrift (PSY) provided invaluable insight to crafting a compelling research statement.



The annual **CV and Resume Roundtable** took place in March. Open to all Ph.D. students in STEM from SU and SUNY-ESF, participants submit their documents for review by a faculty member, university administrator, or an industry representative.

Also in March, WiSE collaborated with Career Services to offer a **Careers in Industry** panel for STEM graduate students. Speakers included (L-R) Drs. Birgit Fogal, Senior Scientist with Boehringer Ingelheim Pharmaceuticals, Shannon Magari, VP of Health Sciences for the Colden Corporation, and Mary Taylor, Sr. Research Engineer at SRCTec.

## Dr. Bhatia Represents!



Lehigh University and the University of Cologne, together with the New York City Office of the University of Cologne and the German Center for Research and Innovation organized and hosted: **Strategies for Recruitment, Retention, Mentoring of Women in STEM: US-German Perspectives** on October 16, 2013. Dr.

Shobha Bhatia was invited to participate in the workshop to discuss strategies and challenges that STEM women face in initiating research collaborations with industry. The program explored institutional best practices for advancing careers of women faculty in STEM. From the public keynote presentations,

the audience learned about the state of the issues as well as government agency and university-level strategies to tackle the issues in the United States and in Germany. Over 50 audience members from public and private universities, industries, and non-profit organizations asked questions to better understand how culture and setting matter when institutions take actions to reduce gender barriers across STEM.



## Paul Longchamps - *Dedicated to Inclusion*



Paul Longchamps is a passionate and dedicated donor to a number of university departments and organizations, the newest of which is WiSE.

WiSE is very grateful to Mr. Paul Longchamps for his generosity towards WiSE and dedication to inclusion. Mr. Longchamps has worn many hats at the university since 1987 including dish washer, salad preparer, custodian, head baker, dining supervisor, and now light mechanical general maintenance, which he enjoys most of all.

His personal story is fascinatingly eclectic, ranging from his skills as master baker to his accomplishments as a hiking enthusiast (having completed the entire Appalachian Trail), to development of an award-winning phonetic dictionary to juggling with the Moscow Circus when

they visited Syracuse.

Forced to leave a difficult family situation at the age of 16, Paul has persevered by honing his powers of observation and setting goals. His own experience of disability. Paul often uses the terminology of “social construct” provided by David Murray from the Development Office to describe those structures and attitudes that hinder people from full acceptance in society. Finally, his encounters with others who must fight against limits imposed by society underscore his conviction that everyone has something to offer the world. He chooses to contribute to those groups that empower people, “If someone has something of value to give and no one wants it – that’s oppressive,” explains Paul.

Paul makes financial contributions to many places including: Communication Sciences and Disorders, the LGBT

Resource Center, the School of Social Work, and WiSE. He also volunteers with the Slutzker Center for International Students as an English conversation partner, where he has developed many friendships over the years.

Paul’s enthusiasm for the ways in which the university has contributed to his life: offering him work that he loves, the chance to develop rich relationships, and loyal supporters who cheer him on during his hiking adventures (next up: The Pacific Crest) is more than inspirational, it is an example of a life well-lived.

“Everyone deserves opportunity,” says Paul. He adds, “***I am happy to demonstrate who I am through what I give.***” In response, we can only say that we are grateful recipients of that gift.

## WiSE-FPP Associate Highlight - Dr. Grace Orado



Dr. Grace Orado is a 2nd Year WiSE-FPP Associate who will graduate with a Ph.D. in Science Education this May. Congratulations, Dr. Orado on the successful completion of your program! We wish you all the best.

Grace Orado successfully defended her dissertation entitled, “Describing Students Talk about Physical Science Phenomena Outside and Inside the Classroom: A Case of Secondary School Students from Maragoli, Western Region Kenya” on Friday, April 11, 2014.

Grace investigated the role language plays in learning how Kenyan students in Form 2 (10th grade) understand scientific concepts. Grace conducted hands-on demonstrations using materials and apparatus commonly used “inside” the science classroom and she asked students to watch short videos and look and pictures to approximate

their experience scientific phenomenon “outside” the classroom. The ideas investigated included: dissolving, evaporation, condensation, static electricity, and current electricity.

So as to mimic the language scenarios both inside and outside the classroom, Grace proceeded with the expectation that the students would speak English, the language of instruction, to describe their experiences inside the classroom and would speak either Kiswahili, the national language, or Kimaragoli, the local language, to describe concepts experienced outside the classroom.

One finding that Grace discovered is that the students’ conceptions of some of the phenomenon occurring outside the classroom filtered into how they described phenomenon experienced inside the classroom, regardless of

which language they used.

For example, while water vapor has terminologies both in Kiswahili (*mvuke*) and Kimaragoli (*omwika*), students used the Kiswahili word for smoke (*moshi*) to describe water vapor formed during evaporation while cooking, both inside and outside the classroom, most likely because that’s how people outside the classroom commonly refer to this occurrence.

Grace’s research demonstrates how language utilized outside the classroom influences comprehension inside the classroom. Such understanding can enable teachers to leverage students scientific learning in meaningful ways – in contrast to rote memorization of scientific ideas.

**In addition to participating in WiSE-FPP, Grace received a small grant from WiSE to assist with travel expenses related to her research.**

# Faculty Highlights 2013-2014

## Women Faculty Lead on Campus and Nationally

**Joanna Masingila** Named Interim Dean of the School of Education



**Cristina Marchetti** Named America Academy of Arts & Sciences, class of 2014, Fellow of the American Association for the Advancement of Science (AAAS) in 2013 and received an NSF award



**Karin Ruhlandt** Named Interim Dean-Designate of The College of Arts and Sciences



**Barbara Stripling** Named President of the American Library Association (ALA)



**Suzanne Baldwin** Named Michael G. and Susan T. Thonis Professor of Earth Sciences



### Thank You To This Year's WiSE Leadership

WiSE is faculty lead and driven, please take a moment to thank those who lead during 2013-2014: Co-Directors: Shobha Bhatia and Karin Ruhlandt. Faculty Advisors: Marina Artuso, Suzanne Baldwin, Amy Criss, Linda Ivany, Laura Lautz and Kate Lewis

## New STEM Women Faculty



**Ruth Chen** is a Professor of Practice in Biomedical and Chemical Engineering. An environmental toxicologist, she

previously served on the faculty at the Washington University in St. Louis (WUSTL) focusing on environmental risk assessment, risk management decision-making, and energy and environmental economics.



**Jiji Fan** is an Assistant Professor of Physics. Following her Ph.D. from Yale, she completed post-docs at Princeton and Harvard. Her research

interest is in low-scale supersymmetric extension of the Standard Model and their collider signatures, Higgs physics, dark matter, and possible applications of conformal field theory to particle phenomenology.



**Jedidah Isler** earned her Ph.D. from Yale University before joining the department of Physics as a Chancellor Faculty Fellow. She

specializes in astrophysics. Her research interests include the multi-wavelength observational astronomy of blazars and understanding the accretion disk-relativistic jet connection in blazars.



**Victoria Tumanova** is an Assistant Professor of Communication Sciences and Disorders. She completed a post-doc fellowship at Vanderbilt University

Medical Center. Her research focuses on developmental stuttering of young children. Tumanova also investigates procedural learning and memory and neurophysiological bases of speech production.

## Women in Motion

**Kal Alston/SU ADVANCE** received a NSF supplemental grant NSF to address dual career needs

**Marina Artuso** received an NSF award

**Rebecca Bader** received, with **Kate Lewis**, and NSF award.

**Katie Cadwell** named TANCY's Technology Educator of the Year

**Amy Criss** receive an NSF Career Award

**Sarah Hall** received an award from SUNY Upstate Medical Center

**Leanne Hirshfield** was awarded the Air Force Office of Scientific Research Young Investigator Program.

**Yun Huang** received an award from Carnegie Mellon University.

**Melissa Green** received the Air Force Office of Scientific Research Young Investigator Program.

**Sandra Hewitt** received an award from the National Institute of Neurological Disorders and Stroke/NIH/DHHS

**Hyune-Ju Kim** awarded grant from National Cancer Institute/NIH/DHHS.

**Kate Lewis** awarded grant from the International Human Frontier Science Program Organization

**Lisa Manning** named Sloan Research Fellow, Identified as Scientific Leader and received NSF Career Award

**Aesoon Park** named Researcher at the Developmental Exposure Alcohol Research Center (DEARC)

**Susan Parks** received an award from Duke University and an award from NSF

**Qinru Qiu** received an NSF award

**Natalie Russo** with **Aesoon Park** awarded a NIH Grant

**Laura Steinberg** received a grant from the Richard S. Shineman Foundation and an award from the Allyn Foundation Award

**Senem Velipasalar** received an NSF award

**Bei Yu** Awarded IMLS Grant

*2013-2014 was a very productive year for STEM women faculty. If we missed anyone, please let us know!*

# Collaboration At Work



**Dr. Joan Bennett** is Professor in the Department of Biology and Pathology at Rutgers University and the Associate Vice President for the Office of the Promotion of Women in Science, Engineering, and Mathematics (Sciwomen).

WiSE-FPP Associates find informal discussions with accomplished scholars at all stages in their careers to be extremely helpful and hopeful. Collaborating with partners such as SU ADVANCE, the Biomaterials Institute, Career Services and the Graduate School, we are able to offer phenomenal opportunities to learn about career preparation and meet role models in STEM.

**Dr. Joan Bennett** offered a lecture entitled, "Science, Sex, Chromosomes, and Success," October 18, 2013 as part of SU ADVANCE's (suadvance.syr.edu) lecture series. WiSE-FPP Associates shared breakfast with Bennett before her lecture.

FPP Associates gained insight from Bennett about the reality behind the lives of dual-career couples: housework constitutes a third job in addition to the full-time careers of each partner. Typically, one of those people (statistically women) does a larger share.

Bennett encouraged Associates to give up the notion of "doing it all" and embrace hiring people to help.

Over lunch with the WiSE-FPP Associates, October 18, 2013, **Dr. Ka Yee C. Lee** discussed with humor and candor her own professional journey from her childhood in Hong Kong, to her time as an international student in the US, to searching for positions as one member of a dual-career couple. Lee advised Associates to cultivate the traits of



**Dr. Ka Yee C. Lee** is Director of the Chicago Materials Research Center and Professor of Chemistry at The University of Chicago. Lee offered the annual Stevenson Biomaterials Lecture on October 17th, 2013.

independence and creativity within their work, which are the two primary qualities she looks for when on hiring committees. Lee also offered the insight that running a lab is like running a small business. She encouraged associates to take every opportunity to hone skills teamwork, management, communication, and negotiation. Associates found Lee's outlook on making choices particularly helpful: choose and don't regret—many roads lead to success.

**Dr. Patricia Culligan**, this year's Slepecky Lecturer, is a leader in the field of water resources and urban sustainability. She has worked extensively with Columbia University's Earth Institute's Urban Design Lab to explore novel, interdisciplinary solutions to today's urban challenges. Her lecture was titled *Green Roofs and Urban Stormwater Management* and was sponsored by SU ADVANCE. Women post docs in STEM met with her for breakfast to discuss career planning.

Dr. Norma Slepecky was a distinguished auditory neuroanatomist and professor at SU. She was a strong advocate for undergraduate research. Each year her endowment awards prizes to undergraduates for research. This year's first place winner was **Katy Austin**, an ESF student who impressed reviewers with her paper titled *Effects of Nitrogen Deposition on Nitrogen*



**Dr. Patricia Culligan** was this year's Norma Slepecky Lecturer. She is a Professor of Civil Engineering and Engineering Mechanics at Columbia University.

*Acquisition by Sarracenia purpurea in the Adirondack Mountains, New York, USA.* Two second place prizes went to **Kristin Weeks** (SU) and **Cambria Ziemer** (ESF).

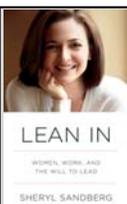


Continuing her outreach to STEM women nationally, **Dr. Shobha Bhatia** has collaborated with many universities to support the development of programs such as WiSE on their campuses. This year she has spoken individually or as part of a panel at Clarkson University, University of Michigan at Ann Arbor, and Lehigh University. In addition to an intensive teaching and research schedule, Dr. Bhatia, now in her 15th year, continues to lead WiSE building a thriving community for women in STEM at Syracuse University. Currently, she is developing a proposal for the National Science Foundation with Dr. Ines Mergel and Ms. Sharon Alestalo of Syracuse University in collaboration with University of Michigan, Ann Arbor and Drexel University to form a national network for peer mentoring and collaboration for US and European women faculty members in Geotechnical Engineering.

**WiSE supports the persistence of women in STEM through the support of undergraduate research, professional development and career preparation for graduate students and post-doctoral fellows, mentoring and equipping women faculty for career success, and building a strong, interdisciplinary community for women.**

For more information  
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## What we are talking about



Sheryl Sandberg advises her readers not to let fears of future work/life balance difficulties get in the way of pursuing success today. The more indispensable you are to a company or institution, the more willing they will be to accommodate. The more you reach for new challenges and opportunities, the more you will love your work. FPP Associates discussed Sandberg's advice over dinner at Dr. Shobha Bhatia's home in December.

Dr. Valerie Young, who spoke to graduate students during a visit in February, addressed the feelings that often inhibits women and persons of color from believing that they are as capable as others perceive them to be and offered tools for overcoming this obstacle to success.

