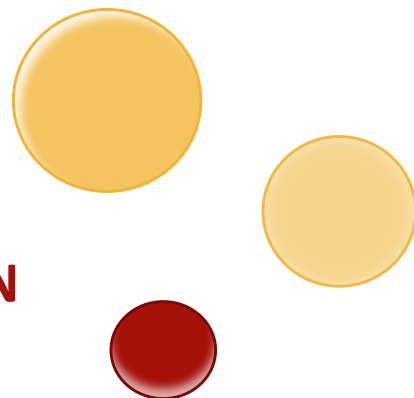




**USC WOMEN IN  
SCIENCE AND  
ENGINEERING**



# **2014 – 2015 ANNUAL REPORT**

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## EXECUTIVE SUMMARY

The USC Women in Science and Engineering Program (WiSE) is USC's premiere diversity initiative. Founded in 2000 by an anonymous donation of \$20 million, WiSE is an endowed initiative aimed at increasing the representation of women in tenured and tenure-track faculty positions in the sciences, engineering, and mathematics at USC.

***Fifteen years milestone:*** It has been five years since WiSE held its 10<sup>th</sup> Anniversary Celebration, and a lot of progress has been made in that time. *Of the current (52) tenured and tenure-track women faculty across the WiSE-eligible departments, 19 have been recruited in the past five years.* WiSE has also started a number of new programs and revised existing programs to better serve the WiSE community and support the program's main mission of increasing representation of women in tenured and tenure-track faculty position in the sciences, engineering, and mathematics.

In 2010, WiSE initiated a new program – *Support for Facilitating Diversity in Faculty Searches* - which competitively provides support to WiSE-eligible departments at USC that propose and implement creative ideas for “casting the net widely,” thus increasing the representation of women in science and engineering faculty searches. In 2013, WiSE piloted a program called *WiSE Dependent Care Travel*, in which tenured and tenure-track faculty with children ages 5 years or younger can apply for an additional \$1,000 of Supplemental Faculty Support to subsidize the costs of traveling. The *WiSE Child Care Grant Program* was also revised to allow full-time PhD students, postdoctoral scholars and faculty in eligible departments to apply for semester grants to subsidize the cost of child care at any state-licensed facility. By allowing WiSE grants to be applied to the tuition of programs outside the USC Child Care facility, the program provided award recipients with a wider array of affordable child care options. In addition, the *WiSE Undergraduate Research Experience* program was developed and implemented with Professor Jessica Parr at the helm. The programming available to undergraduate students has increased significantly as the Undergraduate Research Experience program has evolved, and programming opportunities for PhD students have been augmented considerably by student-oriented WiSE Talks and professional development events. In 2014, WiSE altered its *WiSE Graduate Top-Off Award Program* by partnering with the Viterbi School of Engineering and the Dornsife College of Letters, Arts and Sciences to double the number of two-year awards offered to top incoming students. The collaboration permits the offering of 8 awards within each school, with WiSE providing funding for the first year and Viterbi or Dornsife providing the funds for year two. By working together to fully maximize resources, we are able to provide strong incentives to the most talented

***In the fifteen years that the Program has been in operation, the number of tenured and tenure-track women faculty in WiSE-eligible departments has more than tripled. The number in engineering has increased nine times; it has more than doubled in science and mathematics.***

and promising women doctoral students to choose USC to begin their careers. Modifications are also underway for the *Merit Fellowship for Current Doctoral Students* program, to better support recognition of PhD students.

Two new awards have been instituted – the *Hanna Reisler Mentorship Award*, which recognizes individuals at USC who have advanced the careers of women in science and engineering through generous and committed professional mentorship, and the *WiSE Leadership Award for Students and Postdoctoral Scholars* which distinguishes exceptional students and postdoctoral scholars at USC who are making a positive difference in their scholarly community. WiSE also implemented a new monthly programming series called “*WiSE Talks*” in order to provide an intimate setting to discuss subjects recommended by the community. WiSE further expanded its *involvement in community projects* by continued partnership with the USC Young Researchers Program to expose high school students to scientific research. In Spring 2013, WiSE hosted its first *WiSE Research Horizons Symposium* honoring Professor Hanna Reisler. The event served as a platform to showcase the research of women in the WiSE community, as well as an opportunity for the community to network with USC faculty.

All of these additions and improvements made over the last five years have been a great success and are still part of the WiSE Program today.

Including the recruited faculty members from the 2014-2015 academic year, WiSE has helped to increase the number of women in tenured and tenure-track faculty positions in the programs it represents -- the departments of engineering in the USC Viterbi School of Engineering (VSoE) and the departments of mathematics, biological sciences, earth sciences, physics and astronomy, and chemistry in the USC Dana and David Dornsife College of Letter, Arts and Sciences -- from 42 in 2010 to 52 in August 2015 (See Appendix 1). At the Program’s inception in 2000, there were 3 women faculty members in tenured and tenure-track positions in the VSoE and 12 in the USC Dornsife College. Now, there are 27 in VSoE and 25 in USC Dornsife College. By targeting the recruitment and retention of new women faculty members and by establishing a suite



Professor Hanna Reisler, Lloyd Armstrong Jr. Endowed Chair.

of programs aimed specifically at creating an environment in which the careers of women at all stages of their careers may thrive, WiSE serves as a role model for successful diversity efforts at USC, as well as across the country and internationally.

The 2014-2015 recruitment season was very successful. WiSE helped bring **five new women to the faculty**. VSoE welcomes Assistant

Professors **Eun Ji Chung** (Biomedical Engineering), **Alejandra**

**Uranga** (Aerospace and Mechanical Engineering) and **Phebe**

**Vayanos** (Industrial and Systems Engineering) and USC Dornsife

College welcomes Assistant Professor **Claire Bucholz** (Earth Sciences) and Associate Professor **Juhi Jang** (Mathematics).

WiSE continues to play an active role in helping to increase the representation of women faculty candidates by hosting meetings with department chairs and search committees to outline strategies for broadening the scope of searches for outstanding diversity candidates. WiSE leadership also actively meets with women faculty candidates during campus visits. During the 2014-2015 academic year, WiSE leadership participated in meetings with 26 formal candidates during their campus visits (20 in Viterbi and 6 in Dornsife) (See Appendix 2). WiSE Support for Facilitating Diversity in Faculty Searches (established in 2010-2011) provided 6 grants to the departments of Biomedical Engineering, Civil and Environmental Engineering, Electrical Engineering, Chemical Engineering and Materials Science, Mathematics and Earth Sciences. Biomedical Engineering and Earth Sciences each successfully recruited one Assistant Professor during the 2014-2015 recruitment season, and Mathematics recruited one Associate Professor.

## ***WiSE Faculty Accomplishments***

Current WiSE faculty members continue to distinguish themselves with campus-wide and national level recognition for their research. In the Viterbi School of Engineering, Professor **Ellis Meng** (Biomedical Engineering) received the 2014 Curtis W. McGraw Research Award from the Engineering Research Council, American Society for Engineering Education. Assistant Professors **Megan McCain** (Biomedical Engineering) and **Maryam Shanechi** (Electrical Engineering) were included in *MIT Technology Review's 35 Innovators Under 35*; Shanechi also receive an NSF CAREER Award, a USC Viterbi School of Engineering Early Career Chair, and was named a Google "Solve for X" Pioneer. Assistant Professor **Stacey Finley** (Biomedical Engineering) was named an Emerging Scholar by *Diverse: Issues in Higher Education*; each year, 12 scholars under 40 are selected based on the impact they have has on their community, students and field. Professor **Andrea Armani** (Chemical Engineering and Materials Science) was recognized by the World Economic Forum (WEF) as a Young Global Leader. This recognition includes leaders from all fields, and Armani was one of two American professors honored. Assistant Professor **Minlan Yu** (Computer Science) received an NSF CAREER Award. Assistant Professor **Yan Liu** (Computer Science) was awarded the IBM Faculty Award, a Facebook Faculty Award and a Yahoo Faculty Research Award. Professor **Urbashi Mitra** was awarded *Insight Magazine's* STEM Diversity Award. Mitra served as the inaugural Editor-in-Chief of *IEEE Transactions on Molecular, Biological and Multiscale Communications* which launches Fall 2015. Assistant Professor **Nora Ayanian** (Computer Science) was named one of the inaugural Mic50, which honors young scientists, politicians and artists that influence the future. Professor **Mahta Moghaddam** (Electrical Engineering) was appointed Editor-in-Chief of *IEEE Antennas and Propagation Magazine* and was elected to the Administrative Committee of *IEEE Antennas and Propagation Society*. Professor **Maja Mataric** (Computer Science)

was awarded the Orange County Engineers Council Outstanding STEM Program Award for the Research Experience for Teachers Program and the *INSIGHT Into Diversity's* 2015 Inspiring Women in STEM Award.

In the USC Dornsife College, Professor **Linda Duguay** (Biological Sciences) was elected President (2016-2018) of the Association for the Sciences of Limnology & Oceanography (ASLO- formerly the American Association of Limnology & Oceanography). Professor **Susan Friedlander** (Mathematics) was elected as Chair of the Executive Committee of the Mathematical Council of the Americas. Assistant Professor (Teaching) **Jessica Parr** (Chemistry) received a 2015 USC Mellon Mentoring Award for undergraduate mentoring. Professor **Lorraine Turcotte** (Biological Sciences, Human and Evolutionary Biology) received a Recognition Award from the Center for Scientific Review, NIH, for her service. Professor **Geraldine Peters** (Physics and Astronomy) was elected to a high-level position on the Steering Committee of the International Astronomical Union (IAU). Professor **Jill McNitt-Gray** (Biological Sciences) was elected Fellow of the International Biomechanics Society. Professor **Anna Krylov** (Chemistry) was elected fellow of the American Chemical Society.

## WISE ACTIVITIES

### Programming

During the 2014-2015 academic year, the WiSE Program hosted 50+ events and meetings. In order to further aid in the retention of women faculty and to encourage undergraduate and graduate students to pursue careers in the academe, WiSE administers a monthly programming series of “WiSE Talks,” which provide an intimate setting to discuss subjects recommended by the community and are held monthly in the WiSE Suite. This year, a couple notable talks included:

“Energy In and Energy Out: How to Maintain Metabolic Health by Changing Ein and Eout”

Professor Lorraine Turcotte, Human and Evolutionary Biology  
Dornsife College of Letters, Arts and Sciences  
Thursday, November 6<sup>th</sup>, 2014

“Promoting Yourself in the Academic Workplace: Gender, Communication and Leadership”

Professor Daylanne Markwardt, Center for Management Communication  
USC Marshall School of Business  
Thursday, April 16, 2015

WiSE also continues to provide professional development and networking opportunities for women. The 2014-2015 WiSE Distinguished Lecturer was **Dr. Marcia McNutt**, Editor-in-Chief, Science, family of journals, AAAS. Dr. McNutt was also the former Director of the US Geological Survey in Washington, D.C. She presented a lecture titled, “What Really Matters: Building a Satisfying Career in Science” to 100+ attendees on March 24, 2015. While at USC, Dr. McNutt also met with the WiSE Leadership and shared her thoughts on building a successful career with a smaller group of female graduate students.

As part of the 2014-2015 recruitment season and at the request of the host departments, WiSE sponsored lunches for three faculty candidates with members of the WiSE community, including Andrea Thomaz (Computer Science, 2/25/2015), Phebe Vayanos (Industrial and Systems Engineering, 3/4/2015) and Anca Dragon (Computer Science, 4/14/2015).

During the 2014-2015 WiSE Undergraduate Research Experience, students had the opportunity to participate in 15 sessions, including:  
(See Appendix 3 for sample flyers)

Fall Meet and Greet	9/3/2014
Applying to Grad School	9/11/2014
Faculty Research Talks	10/1/2014 and 10/9/2014
Discussion with Graduate Students	11/5/2014
Resumes and CVs	11/13/2014
Personal and Research Statements	11/13/2015
Semester’s End Celebration	12/3/2014
Finding a Research Advisor	1/20/2015
Preparing a CV and Resume	2/5/2015
Writing a Cover Letter & Personal Statement	2/17/2015
Faculty Research Talk- Hanna Reisler	2/25/2015
Faculty Research Talk- Michelle Povinelli and Gerald Loeb	4/2/2015
Presentation by USC Joint Educational Project (JEP)	4/14/2015
Year’s End Celebration	4/28/2015





2015 WiSE Awards Reception (4/24/15).

The WiSE Faculty Networking Group continues to meet on the last Thursday of each month and enjoyed WiSE-hosted lunches at the beginning of the Fall and Spring semesters.

WiSE continues to hold its annual Awards Reception to recognize community achievements (4/24/2015).

### *New Awards*

During the 2014-2015 academic year, the **WiSE Leadership Award for Students and Postdoctoral Scholars** was created to distinguish exceptional students and postdoctoral scholars at USC who are making a positive difference in their scholarly community. The inaugural award was presented to Chemistry PhD student, Jaimie Stomberg, for her outstanding service while serving as President of the Women in Chemistry (WiC) organization at USC.



Left to right: Professor Kurt Witting (Advisor), Jaime Stomberg, Professor Hanna Reisler

### *WiSE Outreach*

During the 2014-2015 academic year, WiSE commissioned a redesign of the WiSE grant application system. The new system was launched in July 2015, with the help of the Viterbi IT.

WiSE continues to issue regular newsletters (See Appendix 5).

### *Mentoring*

In conjunction with WiSE's stated mission to build a supportive environment for women within the University, WiSE faculty mentor women at all levels – ranging from undergraduate to graduate students and postdoctoral scholars to faculty at all levels. Professor Jessica Parr (Chemistry) continued to coordinate the WiSE Undergraduate Research Experience, mentoring 41 undergraduate researchers and fellows. She will continue in her role during the 2015-2016 academic year.





Jessica Parr, Assistant Professor of Chemistry (Teaching) serves as the Coordinator of the WiSE Undergraduate Research Experience Program.

### *2015 Hanna Reisler Mentorship Award*

The 2014 Hanna Reisler Mentorship Award, which recognizes individuals at USC who have advanced the careers of women in science and engineering through generous and committed professional mentorship, was awarded to three faculty members this year.

Nora Ayanian, Assistant Professor of Computer Science, was given the award to recognize her exceptional mentoring of students.

Erik A. Johnson, Professor of Civil and Environmental Engineering, received the award in recognition of his outstanding mentoring of faculty.

Veronica Eliasson, Assistant Professor of Aerospace and Mechanical Engineering, was awarded to recognize her excellent mentorship of students.



Left to Right: Professors Hanna Reisler, Erik Johnson, Veronica Eliasson, Nora Ayanian, Jill McNitt-Gray

### *Achievements: WiSE Students and Postdoctoral Scholars*

Past WiSE students and postdoctoral scholars continue to be successful in their careers.

**Sarah Sabatinos** (Postdoc, Biological Sciences, 2015, advisor Susan Forsburg) was hired as an Assistant Professor (tenure-track) at Ryerson University in Toronto; **Laura Bradley** (PhD, Chemical Engineering and Materials Science, 2015, advisor Malancha Gupta) will be a postdoctoral scholar at the University of Pennsylvania. **Xueyang Duan** (Postdoc, Electrical Engineering, 2014, advisor Mahta Moghaddam) is now a systems Engineer at NASA's Jet Propulsion Laboratory in Pasadena, CA; **Lindsay Arvin** (BSc, Geology, 2014, mentor Sarah Feakins) obtained the NSF GSRF for her graduate studies at the University of Wyoming and the USC Estwing Pick Award for the highest graduating GPA in Earth Sciences in December 2014; **Krista McPherson** (BA, Geology, 2015, mentor Sarah Feakins) received the USC Estwing Pick Award for the highest graduating GPA in Earth Sciences in May 2015.

Current WiSE PhD students and postdoctoral scholars continue to be recognized for their research and accomplishments. **Hannah Liddy** (PhD Candidate, Earth Sciences, advisor Sarah Feakins) was selected to sail on a two month International Ocean Discovery Program expedition to the Indian Ocean to drill the Indus Fan; **Rebecca Peer** (PhD Candidate, Civil and Environmental Engineering, advisor Kelly Sanders) received a USC Provost Fellowship; **Nethika Ariyasinghe** (PhD Candidate, Biomedical Engineering, advisor Megan McCain) won “Best Poster in Cell and Tissue Engineering” at the USC Department of Biomedical Engineering Grodins Graduate Research Symposium; **Jennifer Rohrs** (PhD Candidate, Biomedical Engineering, advisor Stacey Finley) received a NIH NRSA Pre-doctoral fellowship which includes funding and support for three years; **Erin McParland** (PhD Candidate, Biological Sciences, advisor Naomi Levine) began the first year of her National Defense Science and Engineering Graduate Fellowship (NDSEG); **Xiao Liu’s** (PhD Candidate, Biological Sciences, advisor Naomi Levine) NASA Earth Space and Science Fellowship was renewed. **Elizabeth Cha** (PhD Candidate, Computer Science, advisor Maja Mataric) received the NASA Space Technology and Research Fellowship (NSTRF). **Taeyun Ryu** (PhD Candidate, Biological Sciences, advisor Irene Chiolo) was awarded the USC Outstanding Teaching Assistant Award, the USC Gold Award and the USC Research Enhancement Fellowship. **Susan Schober** (PhD Candidate, Electrical Engineering, advisor Edward Maby) was awarded the Best Student Paper award at the IEEE Latin American Symposium on Circuits and Systems/Iberchip 2015 Conference in Uruguay.

WiSE undergraduate students show promise as emerging researchers and were extremely successful at the 2015 USC Undergraduate Symposium for Scholarly and Creative Work. Recognitions at the symposium included: **Archana Bettadapur** (Biomedical Engineering, advisor Megan McCain) won a first place award in the Life Sciences Division; **Ellie Hara** won first place in the Life Sciences and Engineering Division.

In addition, **Devika Das** (Biological Sciences, advisor Irene Chiolo) and **Yael Freiberg** (Biological Sciences, advisor Susan Forsburg), both received the Biology Department’s Okin Award; **Emily Lin** (Biological Sciences, advisor Irene Chiolo) received a USC Provost Fellowship; **Melissa Bonner and Mwende Mburu** (Biological Sciences, advisor Irene Chiolo) became fellows in the Genomic Research Experience for Undergraduates (GREU) program at USC.

## *Development*

In September 2014, WiSE submitted a proposal to the National Science Foundation ADVANCE program. The proposed USC ADVANCE SoCAL ACTION (Southern California Academic Consortium to Invest in Open Negotiations) for Dual Career Academic Couples Initiative was focused on the development of policies and mechanisms to facilitate resolving dual career hiring opportunities for academics in Southern California.

In July 2014, WiSE learned that USC was not selected for funding. Though the result was disappointing, the feedback we received was helpful and we remain optimistic about future applications.

## **WiSE LEADERSHIP**

A critical aspect of the success of WiSE is the direct involvement of men and women faculty members, at all career levels and from both the USC Dornsife College and the Viterbi School of Engineering, in planning, evaluating, and guiding the Program's development. With the guidance of its diverse committees, WiSE programs have grown and evolved in response to changing needs. Continued evaluation of the success and utility of programs have helped to keep them relevant and effective.

### *WiSE Program Staff*



Leana Golubchik, Professor of Computer Science and Electrical Engineering in the Viterbi School of Engineering, serves as Director of the WiSE Program. Golubchik was appointed as Director in September 2010.



Mallory Redel, serves as the WiSE Program Manager and assists with program development and administration, disbursement of fellowships and grants, and coordination of committees. Mallory joined WiSE in November 2014. Prior to WiSE, Mallory served as the Students Services Advisor at the USC Neuroscience Graduate Program. She holds a Bachelor of Science in Journalism from Middle Tennessee State University and is currently pursuing a Master of Science in Social Entrepreneurship through the USC Marshall School of Business.

### *WiSE Advisory Board*

The WiSE Advisory Board met twice per semester in 2014-2015 (9/30/2014, 12/4/14, 1/26/15, and 4/13/15) and continues to work with program administration to hone its recruitment and support of programs for maximum impact. The first meeting in the Spring semester is joint with the USC Dornsife College and Viterbi School Committees. Areas of particular focus this year included gender equity and hiring practices. .

The Board continues to prioritize mentoring, particularly for junior faculty, and was pleased to see four junior faculty members (Meghan Miller, Sarah Feakins, Malancha Gupta and Burcin Becerik-Gerber) successfully promoted to Associate Professor with tenure this year. Grace Lu (Physics & Astronomy) was promoted to Full Professor. The Board encouraged WiSE to continue to provide resources to faculty to ensure they are properly mentored and supported. In response, WiSE is organizing a biannual event for

associate professors, with panels devoted to aspects of the career, as well as work/family balance. The Program is also organizing career development workshops that will include sessions for PhD students, postdoctoral scholars and faculty.

The board also supported the expansion of WiSE mentoring efforts, with a focus on updating programming for undergraduates. The result was a revised plan tailored for each stage of study, from the freshman through the senior year. This new structure helps students select laboratories in freshman year and begin to develop networks for informal mentoring by senior undergraduate and graduate students. In later years, as students progress, there is formal instruction for preparing the curriculum vitae and presenting research in oral and written formats. Ultimately, there is assistance with identifying and applying for graduate school or comparable research opportunities.

Recognizing that the WiSE Program's successes are beginning to strain the Program's financial resources, the Advisory Board reviewed various WiSE award programs, including those for graduate and postdoctoral students. The conclusion was that the real worth of the Graduate Merit Awards was recognition, rather than substantive assistance with research, and thus the Board suggested that the amount of these awards be reduced.

### 2014-2015 WiSE Advisory Board Members



Judith Hirsch (Chair)  
Professor of Biological Sciences, Neurobiology  
USC Dornsife College of Letters, Arts & Sciences



Linda Duguay  
Associate Professor (Research) of Biological Sciences  
USC Dornsife College of Letters, Arts & Sciences



Malancha Gupta  
Assistant Professor of Chemical Engineering and Materials Science  
USC Viterbi School of Engineering



Stephan Haas  
Professor of Physics and Astronomy  
USC Dornsife College of Letters, Arts and Sciences



Julie Higle  
Professor and Chair of Industrial and Systems Engineering  
USC Viterbi School of Engineering



Anna Krylov  
Professor of Chemistry  
USC Dornsife College of Letters, Arts & Sciences



Urbashi Mitra  
Professor of Electrical Engineering  
USC Viterbi School of Engineering



Susan Montgomery  
Professor of Mathematics  
USC Dornsife College of Letters, Arts & Sciences



Hanna Reisler  
Professor of Chemistry  
USC Dornsife College of Letters, Arts & Sciences



Shanghua Teng  
Professor of Computer Science  
USC Viterbi School of Engineering

### *USC Dornsife WiSE Committee*

Committees composed of faculty in each school serve as advisors on grant-making by reviewing and evaluating the applications and making recommendations for funding.

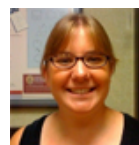
#### **2014-2015 WiSE Dornsife Committee Members**



Jill McNitt-Gray (Chair)  
Professor of Biological Sciences and Biomedical Engineering



David Bottjer  
Professor of Earth Sciences



Jessica Parr  
Assistant Professor of Chemistry (Teaching)



Gary Rosen  
Professor of Mathematics

A summary of the reviews conducted by the USC Dornsife Committee during the academic year follows:

<b>Program</b>	<b>Deadline</b>	<b>Number of Applicants/ Nominations</b>	<b>Number of Awards</b>
Undergraduate Research, Fall	5/16/14	6	6
Undergraduate Research, Spring	12/1/14	13	13
Graduate Merit	4/8/15	9	2
Graduate Top-Off	3/3/15	10	3 (8 offered)
Undergraduate Research, Summer	4/1/15	9	9

## USC Viterbi WiSE Committee

Committees composed of faculty in each school serve as advisors on grant-making by reviewing and evaluating the applications and making recommendations for funding.

### 2014-2015 WiSE Viterbi Committee Members



Ellis Meng (Chair)  
Professor of Biomedical Engineering



Murali Annavaram  
Associate Professor of Electrical Engineering



Burcin Becerik-Gerber  
Associate Professor of Civil and Environmental Engineering



Minlan Yu  
Assistant Professor of Computer Science

A summary of the reviews conducted by the USC Viterbi Committee during the academic year follows:

Program	Deadline	Number of Applicants/ Nominations	Number of Awards
Undergraduate Research, Fall	5/16/14	3	3
Undergraduate Research, Spring	12/1/14	6	6
Graduate Merit	4/8/15	5	2
Graduate Top-Off	3/3/15	7	1 (6 offered)
Undergraduate Research, Summer	4/1/15	8	4



## NEW FACULTY

The following faculty were hired during the 2014/2015 recruitment season.



Claire Bucholz will be joining the USC Department of Earth Sciences as an Assistant Professor in Spring 2017. Claire is currently a PhD Candidate in the MIT/WHOI Joint Program (graduating in Fall 2015). Her research focuses on chemical mass transfer between various reservoirs in the earth. In particular, she is interested in the chemical recycling processes that occur in subduction zones and the origin and evolution of the continental crust. She investigates geologic questions through a combination of fieldwork, petrology, major & trace element geochemistry, geochronology, experimental petrology, and modeling.



Eun Ji Chung will be joining the USC Department of Biomedical Engineering as an Assistant Professor in Fall 2016. Eun Ji Chung received her BA in Molecular Biology at Scripps College (Claremont, CA) and her PhD in Biomedical Engineering from Northwestern University. Upon receiving the IBNAM-Baxter Early Career Award, she continued her research as a postdoctoral fellow at Northwestern. Eun Ji is a recipient of the American Heart Association Postdoctoral Fellowship, Chicago Biomedical Consortium Postdoctoral Research Grant, and the K99/R00 Pathway to Independence Award from NHLBI.



Juhi Jang joined the USC Department of Mathematics as an Associate Professor in Summer 2015. Prior to joining USC she was an Assistant and then an Associate Professor of Mathematics at the University of California, Riverside as well as a Courant Instructor at NYU. She is the recipient of the NSF CAREER award and the IAS von Neumann fellowship and will be in residency at the Institute for Advanced Study the next academic year. Juhi received her PhD and MS in Mathematics from Brown University and her BS in Mathematics from the Seoul National University.



Alejandra Uranga will be joining the USC Department of Aerospace and Mechanical Engineering as an Assistant Professor in Spring 2016. Alejandra is currently the Technology Lead of a collaborative effort between MIT, Aurora Flight Sciences, and Pratt & Whitney. She completed her PhD in the Aerospace Computational Design Laboratory (ACDL) in the Department of Aeronautics and Astronautics at MIT. She holds a Master of

Applied Science degree in Mechanical Engineering from the University of Victoria, Canada and a B.S. degree in Aerospace Engineering from a joint program between the Florida Institute of Technology and the SKEMA Bachelors in Sophia Antipolis, France.



Phebe Vayanos will be joining the USC Department of Industrial and Systems Engineering as an Assistant Professor in Fall 2015. Prior to joining USC, Phebe was a lecturer in the Operations Research and Statistics Group at the MIT Sloan School of Management and a postdoctoral research associate in the Operations Research Center at MIT. She holds a PhD in Operations Research and an MEng in Electrical & Electronic Engineering, both from Imperial College, London.

The following faculty joined USC during the 2014/2015 academic year.



Carolyn Phillips joined the USC Department of Biological Sciences (MCB) as an Assistant Professor. Prior to USC, Phillips was a Postdoctoral Scholar at the Massachusetts General Hospital and Harvard Medical School. She completed her PhD in Molecular and Cell Biology at the University of California at Berkeley.



Maryam Shanechi joined the USC Department of Electrical Engineering as an Assistant Professor in summer 2014. Prior to USC, Shanechi did Postdoctoral work at the Massachusetts General Hospital, Harvard Medical School, MIT, and UC Berkeley. She completed her PhD in Electrical Engineering and Computer Science at MIT and joined USC in July 2014.

### ***IN MEMORIAM:***



WiSE lost a gifted member of our community in 2014. Professor Katrina Edwards (Biological Sciences and Earth Sciences) was an innovator in the field of geomicrobiology, pioneering advances in understanding the seafloor biosphere. She was a dedicated teacher and mentor who guided the work of many students and postdoctoral scholars at USC. Her legacy will live on for many years to come.

## WISE FINANCIAL AWARDS

The WiSE Program has adhered closely to the original structure of funds allocation outlined by the 2000 WiSE Task Force: \$500k for Recruitment/Retention; \$100k for Undergraduate Research; \$250k for PhD Student and Postdoctoral Support; and the remaining funds to support new additional programs. Actual distribution of funds may vary slightly each year depending on the return of investment income on the WiSE endowment and on the number of candidates who accept WiSE awards.

### *Recipient of Major Support for Current Faculty, 2015-2016*

Name	Title	School	Proposal
Mary Eshagian	Professor of Engineering Practice, Electrical Engineering-Systems	Viterbi	"Towards the Design of Nanorobots for Cancer Treatments"

### *Formal Program Awards*

Program	# Awards
Faculty Recruitment / Faculty Retention	17
Major Support for Current Faculty	1
WiSE Gabilan Jr. Chair	3
Lloyd Armstrong, Jr. Chair	1
Support for Facilitating Diversity in Faculty Searches	6
Faculty Bridge Funding	0
Supplemental Faculty Support	31
Merit Award for Excellence in Postdoctoral Research	0
Graduate Top-Off Awards	4
Merit Fellowships for Current PhD.	4
Travel Grants	57
Undergraduate Research Grants	41

Child Care Subsidies	17
Support for Faculty Pregnancy, Childbirth , and Adoption	0
Support for PhD. and Postdoc Pregnancy, Childbirth, and Adoption	3
WiSE Leadership Award for Students and Postdoctoral Scholars	1

### *Discretionary Awards*

In addition to its formal suite of programs, costs were incurred in support of program activities (such as receptions, supporting a cohort of new assistant professors, lecturers, website maintenance, etc.) and administrative expenses, WiSE also awarded several discretionary grants to support activities that work toward the goal of increasing the representation of women in science and engineering. In 2014-2015, these awards included:

<b>Group</b>	<b>Purpose</b>
USC Department of Computer Science	To support travel of USC undergraduate and PhD. students to the Grace Hopper Celebration of Women in Computing.
Women in Chemistry	To support the annual activities for women postdocs and graduate students in the Department of Chemistry.
Young Researchers Program	To support a summer research experience devised and executed by USC graduate students for USC-Area High School Students in Earth Sciences and Marine Environmental Biology.
Charlotte's Web (Women in Math)	To support the annual activities of the networking and professional development group among women students in the Department of Mathematics.

## APPENDIX 1:

### CURRENT WISE FACULTY, TENURED AND TENURE-TRACK (INCLUDING NEW HIRES)

#### USC Dornsife College

##### Life Sciences

Sarah Bottjer	Professor	Biological Sciences (Neuro)
Suzanne Edmands	Professor	Biological Sciences (Marine)
Susan Forsburg	Professor	Biological Sciences (MCB)
Judith Hirsch	Professor	Biological Sciences (Neuro)
Emily Liman	Professor	Biological Sciences (Neuro)
Jill McNitt-Gray	Professor	Biological Sciences (HEB)
Lorraine Turcotte	Professor	Biological Sciences (HEB)
"Jasmine" Xianghong Zhou	Professor	Biological Sciences (MCB)
Liang Chen	Associate Professor	Biological Sciences (MCB)
Wiebke Ziebis	Associate Professor	Biological Sciences (Marine)
Irene Chiolo	Assistant Professor	Biological Sciences (MCB)
Naomi Levine	Assistant Professor	Biological Sciences (Marine)
Carolyn Phillips	Assistant Professor	Biological Sciences (MCB)

##### Physical Sciences / Mathematics

Susan Friedlander	Professor	Mathematics
Anna Krylov	Professor	Chemistry
Jia Grace Lu	Professor	Physics & Astronomy
Susan Montgomery	Professor	Mathematics
Elena Pierpaoli	Professor	Physics & Astronomy
Hanna Reisler	Professor	Chemistry
Sarah Feakins	Associate Professor	Earth Sciences
Juhi Jang	Associate Professor	Mathematics
Meghan Miller	Associate Professor	Earth Sciences
Sami Assaf	Assistant Professor	Mathematics
Claire Bucholz	Assistant Professor	Earth Sciences
Smaranda Marinescu	Assistant Professor	Chemistry

## The USC Viterbi School of Engineering

Amy Childress	Professor	Civil and Environmental Engineering
Leana Golubchik	Professor	Computer Science
Julie Higle	Professor	Industrial and Systems Engineering
Maja Matarić	Professor	Computer Science
Ellis Meng	Professor	Biomedical Engineering
Urbashi Mitra	Professor	Electrical Engineering
Mahta Moghaddam	Professor	Electrical Engineering
Alice Parker	Professor	Electrical Engineering
Andrea Armani	Associate Professor	Chemical Engineering and Materials Science
Burcin Becerik-Gerber	Associate Professor	Civil and Environmental Engineering
Malancha Gupta	Associate Professor	Chemical Engineering & Materials Science
Andrea Hodge	Associate Professor	Aerospace and Mechanical Engineering
Eva Kanso	Associate Professor	Aerospace and Mechanical Engineering
Michelle Povinelli	Associate Professor	Electrical Engineering
Katherine Shing	Associate Professor	Chemical Engineering & Materials Science
Nora Ayanian	Assistant Professor	Computer Science
Eun Ji Chung	Assistant Professor	Biomedical Engineering
Veronica Eliasson	Assistant Professor	Aerospace and Mechanical Engineering
Stacey Finley	Assistant Professor	Biomedical Engineering
Aleksandra Korolova	Assistant Professor	Computer Science
Yan Liu	Assistant Professor	Computer Science
Megan McCain	Assistant Professor	Biomedical Engineering
Kelly Sanders	Assistant Professor	Civil and Environmental Engineering
Maryam Shanechi	Assistant Professor	Electrical Engineering
Alejandra Uranga	Assistant Professor	Aerospace and Mechanical Engineering
Phebe Vayanos	Assistant Professor	Industrial and Systems Engineering
Minlan Yu	Assistant Professor	Computer Science

## APPENDIX 2:

### FACULTY CANDIDATES INTERVIEWED ON CAMPUS

As in previous years, WiSE leadership offered to meet with women faculty candidates during their visits to campus, both to transmit information about the WiSE Program and resources and to provide opportunities for candidates to ask questions about USC and work-family issues that they might not ordinarily feel comfortable discussing as part of their formal interview process. Departments continued to take advantage of this offer and senior WiSE faculty met with 26 faculty candidates over the course of 2014-2015. The list of candidates is below:

Eli Sutter	Chemical Engineering and Materials Science	9/23/2014
Joyce Poon	Electrical Engineering (EP)	12/12/2014
Amanda Randles	Aerospace and Mechanical Engineering	2/4/2015
Emily Mullen	Earth Sciences	2/5/2015
Claire Bucholz	Earth Sciences	2/10/2015
Rebecca Fisher	Earth Sciences	2/10/2015
Emily Chin	Earth Sciences	2/12/2015
Andrea Thomaz	Computer Science	2/24/2015
Ariel Levine	Biological Sciences (Neurobiology)	2/25/2015
Eun Ji Chung	Biomedical Engineering	2/25/2015
Lydia Kavraki	Computer Science	2/26/2015
Alejandra Uranga	Aerospace and Mechanical Engineering	2/26/2015
Elham Sahraei	Civil and Environmental Engineering	2/26/2015
Phebe Vayanos	Industrial and Systems Engineering	3/3/2015
Cam Macris	Earth Sciences	3/4/2015
Elette Boyle	Computer Science	3/5/2015
Arghavan Louhghalam	Civil and Environmental Engineering	3/10/2015
Maryam Shakiba	Civil and Environmental Engineering	3/16/2015
Bihn Duong	Chemical Engineering and Materials Science	3/17/2015
Reetuparna Das	Electrical Engineering (Systems)	3/25/2015
Huanping Zhou	Chemical Engineering and Materials Science	4/2/2015
Nour Nijem	Chemical Engineering and Materials Science	4/2/2015
Suma George	Electrical Engineering (EP)	4/3/2015
Danai Koutra	Computer Science	4/9/2015
Anca Dragon	Computer Science	4/9/2015
Eunji Chung-Yoo	Biomedical Engineering	4/14/2015



## APPENDIX 3: SAMPLES OF WISE EVENTS FLYERS

Let WiSE Help **You** Prepare  
for **Your** Future



*Join us September 11<sup>th</sup> as we host a workshop to help  
you with Graduate School applications!*

### **Applying to Graduate School**

Thursday, September 11

WiSE Suite (DRB 232)

12:00 – 1:30 pm

\*RSVP to by September 10<sup>th</sup>\*

[https://docs.google.com/forms/d/142lcsaJUAwOUz0F-4Pu0JtM3dittMCozc7d3XnhJv4EQ/viewform?usp=send\\_form](https://docs.google.com/forms/d/142lcsaJUAwOUz0F-4Pu0JtM3dittMCozc7d3XnhJv4EQ/viewform?usp=send_form)



USC Women in Science and Engineering  
1042 Downey Way, DRB 232  
Los Angeles, CA 90089-1111  
(213) 740-0996  
(213) 821-5252  
[wiseprog@usc.edu](mailto:wiseprog@usc.edu)

**wise**

## Need help finding a Research Advisor?



*Join the USC Women in Science and Engineering  
Program for LUNCH as we discuss identifying and  
approaching potential faculty mentors.*

*Tuesday, January 20*

*11:00 AM – 1:00 PM*

*WiSE Suite, DRB 232*

*\*RSVP HERE by 1/16/15*



USC Women in Science and Engineering  
1042 Downey Way, DRB 232  
Los Angeles, CA 90089-1111  
(213) 740-0996  
wiseprog@usc.edu  
[wise.usc.edu](http://wise.usc.edu)



## APPENDIX 4:

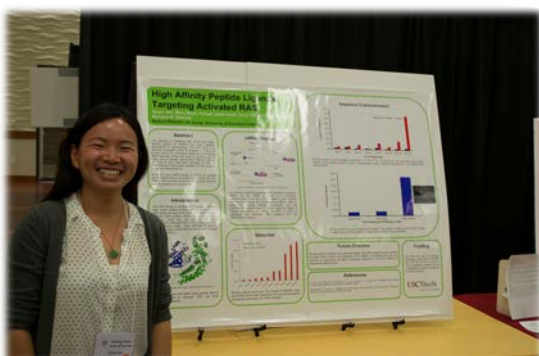
### WISE EVENTS: DISTINGUISHED LECTURER & UNDERGRADUATE RESEARCH SYMPOSIUM



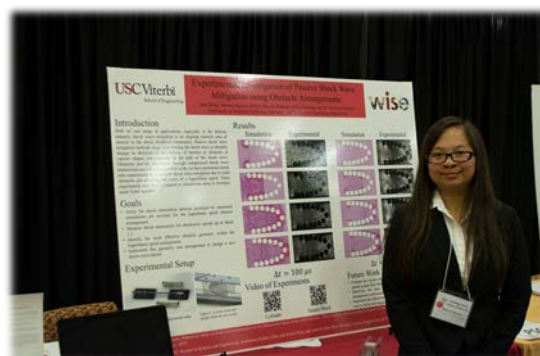
Attendees of the WiSE Distinguished Lecture on March 24, 2015.



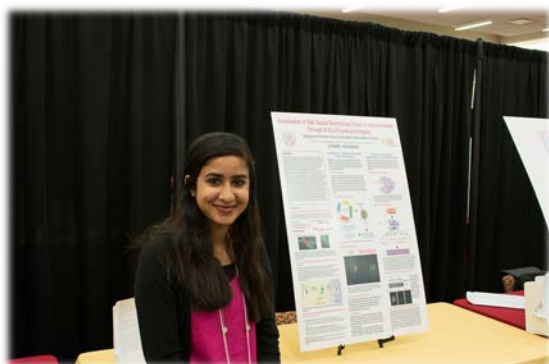
Dr. Marcia McNutt, 2015 WiSE Distinguished Lecturer



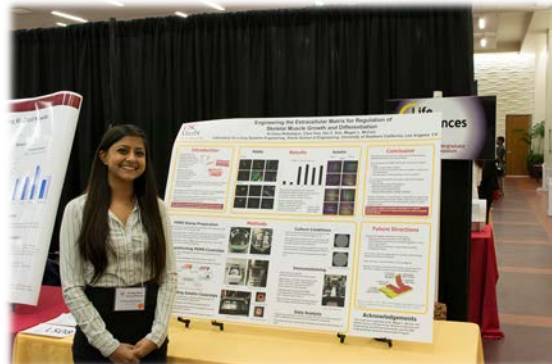
WiSE Researcher, Zhingyi Qi, at the USC Undergraduate Research Symposium



WiSE Researcher, Monica Nguyen, at the USC Undergraduate Research Symposium



WiSE Researcher, Devika Das, at the USC Undergraduate Research Symposium



WiSE Researcher, Archana Bettadapur, at the USC Undergraduate Research Symposium

## APPENDIX 5: WISE NEWSLETTERS

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**January 23, 2015**

**USC Women in Science  
and Engineering**

1042 Downey Way, DRB 232  
Los Angeles, CA 90089-1111  
(213) 740 - 0996

**Stay up to Date:**



## Upcoming Events

**WiSE Advisory Board Meeting**

**Joint with the Dornsife and Viterbi Committees**

Monday, January 26, 2015

12:30pm

DRB 232

**WiSE Faculty Networking Lunch**

Thursday, January 29, 2015

12:00pm



DRB 232

**WiSE Undergraduate Lunch**

Preparing a CV

Thursday, February 2, 2015

12:00pm

DRB 232

RSVP [here](#).

**WiSE Undergraduate Lunch**

Writing a cover letter/personal statement

Tuesday, February 17, 2015

11:30am

DRB 232

RSVP [here](#).

**WiSE-Hosted Faculty Networking Lunch**

Thursday, February 26, 2015

12:00pm

RRI 421

**WiSE Distinguished Lecturer**

**Dr. Marcia McNutt, Editor-in-Chief *Science* family of journals, AAAS**

**Former Director, US Geological Survey**

**Washington, D.C.**

Tuesday, March 24, 2015 at 11:00am

Room 450, "The Forum," Ronald Tutor Campus Center

Click [here](#) for additional details.

## Upcoming Deadlines

**WiSE Major Support for Current Faculty**

Applications Due: Tuesday, January 27, 2015

For Additional Information: [CLICK HERE](#)

This competitive program offers awards of up to \$25,000 and is aimed at offsetting subtle biases, barriers, and career interruptions that have been shown to hinder the advancement of women faculty in science and engineering at research universities. To be eligible, applicants must have faculty appointments in the departments of the Viterbi School of Engineering or the natural science and math departments of the USC Dana and David Dornsife College of Letters, Arts, and Sciences (Biology, Chemistry, Earth Sciences, Mathematics, and Physics & Astronomy).

**WiSE Child Care Subsidy**

Applications Due: Monday, February 2, 2015

For Additional Information: [CLICK HERE](#)

WiSE Child Care Grants provide doctoral students, postdoctoral fellows, and faculty members in WiSE-eligible departments with grants to subsidize tuition for children

enrolled at state certified daycare programs of their choice. WiSE Child Care Grants are awarded on a semester by semester basis and are available for a select number of applicants in good standing who have primary childcare responsibilities for a child in the infant through pre-school age range. Applicants may apply to renew their grant at the end of each semester, but priority will be given to new candidates. All applicants must show proof of dependency, proof of enrollment, and a copy of the facility's state licensing permit as part of their application. Please note that WiSE Child Care Grants cannot be used to support the salary of a nanny or other care giver. WiSE Child Care Grants are paid in the form of a single lump sum grant, typically awarded during the second month of the semester.

### **WiSE Graduate Top-Off Fellowship**

Applications Due: Tuesday, March 3, 2015

For Additional Information: [CLICK HERE](#)

Graduate Top-Off Fellowship funds are available to facilitate the recruitment of outstanding doctoral students to USC. The funds provide four incoming Ph.D. students in WiSE-eligible departments in the USC Dornsife College and four incoming Ph.D. students in the Viterbi School of Engineering with a WiSE Fellowship to supplement their financial support packages. Each WiSE Fellowship will carry a stipend of \$5,000 and may be renewed for a second year pending satisfactory progress verified by the faculty advisor.

Each department may nominate one candidate. Nominations and supporting documentation should be submitted electronically.

### **WiSE Merit Award for Excellence in Postdoctoral Research**

Applications Due: Tuesday, March 17, 2015

For Additional Information: [CLICK HERE](#)

Department chairs submit application materials electronically in digital form to the WiSE Program office at [wiseprog@usc.edu](mailto:wiseprog@usc.edu).

The WiSE Merit Awards for Excellence in Postdoctoral Research are offered to current Postdoctoral researchers at USC who demonstrate exceptional work in their field. Candidates must be working under the mentorship of a faculty member in a WiSE-eligible department of the USC Dana and David Dornsife College or Letters, Arts, and Sciences or in the Viterbi School of Engineering. A maximum of four awards will be given each year. Candidates are nominated by the faculty and each department may nominate up to two candidates. Each WiSE Award will be for \$3,000.

### **Hanna Reisler Mentorship Award**

Applications Due: Tuesday, March 31, 2015

For Additional Information: [CLICK HERE](#)

The Hanna Reisler Mentorship Award is named in honor of one of our founding faculty members and the many years she has dedicated to mentoring faculty and especially women at USC. The Hanna Reisler Mentorship Award recognizes individuals at USC who have advanced the careers of women in science and engineering through generous and committed professional mentorship. Letters of

nomination should be submitted by March 31, 2014. Nominations will be reviewed by an awards committee with an awardee to be announced in April. Members of the WiSE-community should send letters of nomination to [wiseprog@usc.edu](mailto:wiseprog@usc.edu). All members of the university community are eligible to be nominated.

## In the News

The WiSE community would like to extend our warmest congratulations to **Grace Lu** on her promotion to Full Professor of Physics and Electrical Engineering & Chemical Engineering and Materials Science.

## Other Opportunities

Applied Computer Security Associates, The Committee on the Status of Women in Computing Research and Hewlett-Packard are pleased to announce that applications for 2015-16 scholarships for **undergraduates** through the Scholarships for Women Studying Information Security are open **December 15, 2014 - February 15, 2015**. Visit [www.swsis.org](http://www.swsis.org) for more information.

The Computing Research Association-Women and the Coalition to Diversify Computing are currently **accepting applications for the Distributed Research Experiences for Undergraduates (DREU) Program**. An online application, more information about DREU and accounts from previous participants can be found [here](#). The application deadline is February 15, 2015, and awards will be announced in mid-March 2015.

USC's Wrigley Institute for Environmental Studies is now accepting applications for the **2015 Summer Research Experiences for Undergraduates (REU): Coastal Ocean Processes** program. The application deadline is February 16, 2015, and more information can be found [here](#).

## Articles of Interest

[Women in Science Illustrations](#)

[Women flocking to statistics the newly hot, high-tech field of data science](#)

[The Untold History of Women in Science and Technology](#)





August 2014

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