



USC WOMEN IN SCIENCE AND ENGINEERING

2015-2016, 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.

Since the program's inception, WiSE has successfully helped to increase the number of women in these 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 15 in 2000 to 57 in June 2016 (See Appendix 1). By targeting the recruitment and retention of new women faculty members and by establishing a suite of programs aimed specifically at creating an environment in which 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.



Professor Hanna Reisler,
Lloyd Armstrong, Jr.
Endowed Chair.

During the 2015-2016 recruitment season, WiSE helped bring **six new women to the faculty**. VSoE welcomes Assistant Professors **Sze-Chuan Suen** (Industrial and Systems Engineering), **Dina El-Damak** (Electrical Engineering –EP), **Cristina Zavaleta** (Biomedical Engineering) and **Shaama Sharada** (Chemical Engineering and Materials Science) and USC Dornsife College welcomes Assistant Professors **Carly Kenkel** (Biological Sciences- MEB) and **Lindsey Schier** (Biological Sciences- HEB).

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 2015-2016 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 provided 7 grants to the departments of Biomedical Engineering, Electrical Engineering, Biological Sciences (Human and Evolutionary Biology) and (Marine and Environmental Biology), Earth Sciences, Physics and Astronomy, and Mathematics. The departments of Biomedical Engineering, Electrical Engineering, Biological Sciences (Human and Evolutionary Biology) and (Marine and Environmental Biology) each successfully recruited one Assistant Professor during the 2015-2016 recruitment season.

WiSE also established a new university-wide seminar series entitled STEM Bytes, aimed at increasing interest in research amongst undergraduates at USC. In addition, WiSE

created the new Gabilan Distinguished Professorship in Science and Engineering during the 2015-2016 academic year.

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, Assistant Professor **Maryam Shanechi** (Electrical Engineering) was selected by Popular Science as one of this year's Brilliant 10. Assistant Professor **Minlan Yu** (Computer Science) was appointed as an Andrew and Erna Viterbi Early Career Chair. Professor **Ellis Meng** (Biomedical Engineering) became an IEEE fellow and was selected as a recipient of the 2016 USC Mentoring Awards for faculty mentoring faculty. Professor **Urbashi Mitra** (Electrical Engineering) was appointed as the USC Viterbi Dean's Professor of Electrical Engineering. Assistant Professor **Stacey Finley** (Biomedical Engineering) was selected as a Keystone Symposia Fellow. This research-driven, diversity-centered program educates early-career scientists on the inner workings of the life science community and provides a venue for high-level interaction with established and leading scientists nationally and globally. Stacey also received the NSF CAREER award and was selected as Young Innovator by Cellular and Molecular Bioengineering Journal. Professor **Maja Mataric** (Computer Science) was elected AAAI Fellow. Assistant Professor **Nora Ayanian** (Computer Science) received the NSF CAREER award. Associate Professor **Eva Kanso** (Aerospace and Mechanical Engineering) was selected as a recipient of the 2016 USC Mentoring Award for faculty mentoring graduate students. Professor **Mahta Moghaddam** (Electrical Engineering) was appointed the Viterbi School of Engineering's interim Vice Dean for Research. Professor **Andrea Hodge** (Chemical Engineering and Materials Science & AME) was appointed as holder of the Arthur B. Freeman Professorship and the Vice Provost of Undergraduate Programs at USC. Andrea also received the Early Career Achievement Award for Alumni of Materials Science and Engineering at Northwestern University. Associate Professor **Burcin Becerik-Gerber** received the 2015 Outstanding Reviewer Recognition from the ASCE Journal of Computing in Civil Engineering. Associate Professor **Andrea Armani** (Chemical Engineering and Material Science) was invited to attend the Science and Technology in Society (STS) Forum as a Future Leader to represent the United States in discussions with Nobel Laureats and other top researchers about the impact of science and technology on society. She was also selected as a World Economic Forum Young Global Leader.

In the USC Dornsife College, Professor **Anna Krylov** (Chemistry) was elected fellow of the American Chemical Society and received the Phi Kappa Phi Faculty Recognition Award. Professor **Jill McNitt-Gray** (Biological Sciences) was elected fellow of the International Biomechanics Society and received the 2016 Jim Hay Memorial Award –which recognizes outstanding accomplishments in sports and exercise sciences biomechanics. Assistant Professor **Smaranda Marinescu** (Chemistry) received the NSF CAREER award. Assistant Professor **Naomi**

Levine (Marine Environmental Biology) was recognized as one of the 2016 class of Sloan Fellows in the Ocean Sciences division. Professor **Susan Forsburg** (Biological Sciences) received a USC Associates Award for Excellence in Teaching. Susan also received a MIRA (Maximizing Investigator's Research Awards) from the National Institute of General Medical Science. Forsburg is one of the first in the country to receive this new type of grant. Professor **Hanna Reisler** (Chemistry) was selected as a recipient of the 2016 Inspiring Women in Stem Award by INSIGHT Into Diversity magazine.

WiSE Activities

Programming

During the 2015-2016 academic year, the WiSE Program hosted 70+ 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. The talks are held monthly in the WiSE Suite. This year, a couple notable talks included:

"Empowerment of Women in the Academic World"

Associate Professor Lynn Kamerlin, Department of Structural Biology
Uppsala University
Wednesday, November 18, 2015

"Stress Management"

Bara Floyd, Senior Lecturer, Department of Biological Sciences
USC Dornsife School of Letters, Arts and Sciences
Tuesday, April 12, 2016

WiSE also continues to provide professional development and networking opportunities for women. In August 2015, WiSE held a community-wide outing to the Hollywood Bowl. The following month, WiSE organized and held *a day-long career development workshop for faculty, PhD students and postdoctoral scholars*. The workshop was facilitated through COACH and included sessions entitled, *The Power of Persuasion and Effective Negotiation*. Sixteen PhD students ranging from first to sixth year students across five departments attended the workshops. In addition, fifteen faculty members, ranging from Lecturers to full Professors attended the sessions. These faculty represented the departments of Chemistry, Biological Sciences, Computer Science, Aerospace and Mechanical Engineering, Biomedical Engineering, Chemical Engineering and Electrical Engineering. In November 2015, WiSE organized and held *an event for Associate Professors with panels devoted to promotions, aspects of career development (including external awards), and work/family balance*. Finally, in the Fall 2015 semester, WiSE applied for and received funds from the USC Center for Excellence in Research to

organize a workshop on the best practices in recruiting and converting top quality PhD students to STEM departments at USC. On January 22, 2016, WiSE held a meeting entitled, “Recruitment of Top Quality Doctoral Students: The Backbone of Thriving STEM Research Programs”. Attendees of the workshop included Chairs of PhD programs, Chairs of PhD admissions committees, and faculty who actively participate in the admissions and PhD student recruitment process. To focus the discussion on what works best at USC, WiSE included representatives from STEM departments that have a successful graduate student recruitment and external fellowships track record (e.g., Departments of Chemistry and Chemical Engineering). Since under-represented students are an important focus, WiSE also included Assistant Professor William Halfond from Computer Science who (through Viterbi’s Center for Engineering Diversity) has spent the last few years recruiting students through the REACH program, speaking at universities with large URM populations and attending minority recruitment conferences.

As part of the 2015-2016 recruitment season and at the request of the host departments, WiSE organized lunch meetings for six faculty candidates with members of the WiSE community, including Hui Cao (Electrical Engineering, 10/23/2015), Iolanda Leite (Computer Science, 3/1/2016), Jessica Oakes (Aerospace and Mechanical Engineering, 3/8/2016), Janna Nawroth (Aerospace and Mechanical Engineering, 3/9/2016), Julia Rubin (Computer Science, 4/18/2016), and May Wang (Biomedical Engineering, 5/11/2016).

During the 2015-2016 WiSE Undergraduate Research Experience, students had the opportunity to participate in 26 sessions, including:

Fall Meet and Greet	9/1/2015
STEM Bytes Seminar with Professors Lorraine Turcotte and Meghan Miller	9/4/2015
Applying to Graduate School	9/17/2015
STEM Bytes Seminar with Professors Smaranda Marinescu and Sheila Tejada	10/2/2015
CV/Resume Workshop	10/6/2015
STEM Bytes Seminar with Professors Aleksandra Korolova and Urbashi Mitra	10/16/2015
Personal Statement Workshop	10/21/2015
STEM Bytes Seminar with Professors Stacey Finley and Jill McNitt-Gray	10/30/2015
USC Center for Women and Men Talk	11/3/2015
STEM Bytes Seminar with Professors Kelly Sanders and Leana Golubchik	11/13/2015
Learning and Memory: Study Techniques	11/18/2015

STEM Bytes Seminar with Professors Megan McCain and Veronica Eliasson	12/4/2015
Imposter Syndrome	1/19/2016
STEM Bytes Seminar with Professors Matt Dean and Paul Ronney	1/22/2016
STEM Bytes Seminar with Professors Sami Assaf and Albert Herrera	2//2016
Faculty Lunch with Professor Alejandra Uranga	2/11/2016
STEM Bytes Seminar with Professors Malancha Gupta and Suvrajeet Sen	2/19/2016
Sheryl Sandberg TED Talks	2/24/2016
STEM Bytes Seminar with Professors James Boedicker and Travis J. Williams	3/4/2016
Graduate Student Panel	3/10/2016
STEM Bytes Seminar with Professors Eva Kanso and Gerald Loeb	3/22/2016
Discussion of the book “The Only Woman in the Room”	3/30/2016
Guest from the USC Joint Educational Project	4/5/2016
STEM Bytes Seminar with Professors Craig Stanford and Stephan Haas	4/15/2016
End of the Semester Celebration	4/21/2016
STEM Bytes Seminar with Professors Stephan Bradforth and Judith Hirsch	4/29/2016

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. In addition, WiSE teaching faculty began holding regular meetings during the 2015-2016 academic year. On November 12, 2015 as part of those meetings, Professors Jessica Parr and Bara Floyd lead a WiSE Talk on teaching pedagogy, citing the book “How We Learn and Why It Happens” by Benedict Carey.



2016 WiSE Awards Reception (4/28/16).

WiSE continues to hold its annual Awards Reception to recognize community achievements (4/28/2016).

New Programming

WiSE implemented a new seminar series aimed at undergraduate students at USC entitled **STEM Bytes: Introduction to Research in Science and Engineering**. The series features faculty from engineering departments as well as the departments of mathematics, earth sciences, biological sciences, physics and astronomy, and chemistry and highlights the exciting research being done across STEM disciplines at USC. STEM Bytes was developed as a part of the WiSE Undergraduate Research Experience Program (guided by Professor Jessica Parr) and is open to all undergraduate students interested in attending. The goal of the seminar series is to introduce undergraduate students to research opportunities in science and engineering. During the 2015-2016 academic year, WiSE held 13 STEM Bytes Seminars. On average, there were 12 undergraduate attendees at each seminar ranging from freshman to senior level.

New Awards

During the 2015-2016 academic year, the WiSE Program, in collaboration with the Viterbi School of Engineering, established the **Gabilan Senior Professorship in Science and Engineering**. This honor is intended to recognize faculty in WiSE-eligible departments for excellence in their academic accomplishments as well as contributions to the WiSE community. WiSE will announce the inaugural award holder(s) during the 2016-2017 academic year.

WiSE Outreach

WiSE continues to issue regular newsletters (See Appendix 5). WiSE continues to support the USC Young Researchers Program (YRP) annually. YRP hosts a summer research experience devised and executed by USC graduate students for USC-area high school students in the sciences.

Mentoring



Jessica Parr,
Associate
Professor of
Chemistry
(Teaching)

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 53 undergraduate researchers and fellows; she will continue in her role during the 2016-2017 academic year.

This year WiSE revised the undergraduate programming with a 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.



WiSE Undergraduates, 2016

2016 Hanna Reisler Mentorship Award



Left to Right: Professors Hanna Reisler, Veronica Eliasson, Andrea Armani

The 2016 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 **Andrea Armani**, Associate Professor of Chemical Engineering and Materials Science, to recognize her exceptional mentoring of students.

Achievements: WiSE Students and Postdoctoral Scholars

Past WiSE students and postdoctoral scholars continue to be successful in their careers. **Roshni Biswas** (PhD, Electrical Engineering, 2016, advisor Michelle Povinelli) started a position as Senior Engineer at ASML- Brion Technologies. **Roya Sheybani** (PhD, Biomedical Engineering, advisor Ellis Meng) received the Best Research Assistant Award from the USC Biomedical Engineering Department. She is currently a Postdoctoral Scholar at Brown University where she holds the Hibbitt Postdoctoral Fellowship. **Lyudmila Slipchenko** (PhD, Chemistry, 2005, advisor Anna Krylov) was selected as a recipient of the 2016 Inspiring Women in Stem Award by INSIGHT Into Diversity magazine.

Current WiSE PhD students and postdoctoral scholars continue to be recognized for their research and accomplishments. **Taehyun Ryu** (PhD Candidate, Biological Sciences, advisor Irene Chiolo) was awarded the Gold Family Fellowship, a Research Enhancement Fellowship, and a FASEB travel award. **Qianhui (Jess) Wu** (PhD candidate, Biomedical

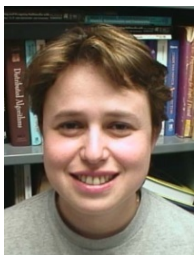
Engineering, advisor Stacey Finley) was awarded the Grodins Symposium Poster Award in the Biosystems and Signals Section. **Alexa Hudnut** (PhD candidate, Biomedical Engineering, advisor Andrea Armani) was named an ARCS Scholar. **Victoria Sun** (PhD Candidate, Chemical Engineering, advisor Andrea Armani) was named an ARCS Scholar and received an AIChE Travel Award to present at the AIChE Annual Meeting.

In addition, current and recent WiSE undergraduates continue to show promise as emerging researchers and leaders. **Yupei Liu** (Biological Sciences, advisor Irene Chiolo) received a SOAR Fellowship. **Lila Marshall** (Biological Sciences, advisor Irene Chiolo) received a USC Provost Fellowship. **Helen Chung** (Biological Sciences, advisor Irene Chiolo) was awarded a SOAR Fellowship, as was **Quinn Cowan** (Biological Sciences, advisor Irene Chiolo). **Mwende Mburu** (Biological Sciences, advisor Irene Chiolo) became a fellow in the Genomic Research Experience for Undergraduates (GREU) program at USC. **Connie Li** (former undergraduate, Biomedical Engineering, advisor Ellis Meng) was named a USC Viterbi School of Engineering Grand Challenges Scholar. **Alexandra Figueroa** (2016 graduate, Earth Sciences, advisor Sarah Feakins) is now working as an Environmental Scientist at O'Neill Service Group in Seattle, WA. **Moriah Mulroe** (2016 graduate, Chemistry, advisor Hanna Reisler) was awarded a Marshall Fellowship. **Gumi Sethi** (Chemical Engineering, advisor Andrea Armani) received an NSF Fellowship and is attending the University of California, Berkeley for her PhD in Fall 2016. **Lili Lash-Rosenberg** (Biomedical Engineering, advisor Andrea Armani) was named a Renaissance Scholar and is starting her MS in Mechanical Engineering at USC this fall.

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 2015-2016 (9/17/2015, 12/1/2015, 2/1/2016, and 4/7/2016) 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:

- dual career hiring
- improving the pool of graduate students in our doctoral programs
- recognition and support for tenured faculty
- developing a formal network for faculty on the teaching track
- organizing a research symposium

The USC Provost's office established a task force to address dual-career hiring, due in part to contributions from WiSE. A newly created central office provides university-wide resources that address the specific challenges associated with this issue.

Additionally, the Board met with executive leadership within the USC Graduate School to advocate for changes to the policies surrounding graduate fellowships. In particular, the Board suggested increasing the number and flexibility of graduate fellowships, as these are crucial to improving the number and quality of PhD students at USC.

This year, the Board is pleased to note the creation of the Gabilan Distinguished Professorship in Science and Engineering (see page 8). This honor is intended to recognize and support distinguished tenured faculty in science and engineering at USC.

For any number of reasons, many women in STEM accept faculty positions that do not offer tenure and that focus on teaching. Even as these individuals make important contributions to their fields and to excellence in teaching at USC, progress along this path is not as straightforward as that along the tenure track. Conversations during monthly network meetings and other WiSE venues made clear that there was a lack of mentorship and support for this cohort. Thus, WiSE helped to organize meetings for teaching faculty which we hope will smooth the path towards career development and

promotion. **Amy Rechenmacher** (Associate Professor of Engineering Practice, Civil & Environmental Engineering) agreed to lead the effort.

Finally, in alternate years, WiSE sponsors a research symposium. The Board discussed potential topics for a symposium during the 2016-2017 year and settled on the broad theme of “water”. The seminar will be organized by **Amy Childress** (Viterbi) and **Sarah Feakins** (Dornsife) and draw speakers from various departments across USC and other institutions. This is an event for faculty and students at USC to learn more about the topic at hand and also learn more about the WiSE community.

The Board continues to prioritize mentoring, particularly for junior faculty, and was pleased to see two junior faculty members (**Veronica Eliasson** – AME and **Yan Liu** - CS) successfully promoted to Associate Professor with tenure this year. **Andrea Hodge** (Chemical Engineering and Materials Science) was promoted to Full Professor. **Jessica Parr** (Chemistry) was also promoted to Associate Professor of Teaching.

2015-2016 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



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



Michelle Povinelli
Associate Professor, Electrical Engineering
USC Viterbi School of Engineering



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



Remo Rohs
Associate Professor, Biological Sciences
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.

2015-2016 WiSE Dornsife Committee Members



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



James Boedicker
Assistant Professor, Physics & Astronomy



Suzanne Edmands
Professor, Biological Sciences



Gary Rosen
Professor, Mathematics

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

Program	Deadline	Number of Applicants/ Nominations	Number of Awards
Undergraduate Research, Fall	5/16/15	17	13
Undergraduate Research, Spring	12/1/15	15	12
Graduate Merit	4/8/16	7	2
Graduate Top-Off	3/3/16	10	4 (8 offered)
Undergraduate Research, Summer	4/1/16	6	4

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.

2015-2016 WiSE Viterbi Committee Members



Malancha Gupta (Chair)
Associate Professor, Chemical Engineering and Materials Science



Veronica Eliasson
Associate Professor, Aerospace and Mechanical Engineering



Erik A. Johnson
Professor, Civil and Environmental Engineering



Yan Liu
Associate 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	5/16/15	13	9
Undergraduate Research, Spring	12/1/15	12	9
Graduate Merit	4/8/16	6	2
Graduate Top-Off	3/3/16	12	1 (8 offered)
Undergraduate Research, Summer	4/1/16	7	6

NEW FACULTY

The following faculty were hired during the 2015/2016 recruitment season.



Dina El-Damak will be joining the USC Department of Electrical Engineering as an Assistant Professor in Fall 2016. She received the S.M. and Ph.D. degrees in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology (MIT) in 2012 and 2015 respectively under the supervision of Prof. Anantha Chandrakasan, and the B.Sc. and M.Sc. degrees in Electronics and Electrical Communication Engineering from Ain Shams University, Cairo, Egypt. After receiving her doctoral degree, she spent one year as a postdoctoral associate at the MIT's Microsystems Technology Laboratories. Her research interests include energy harvesting, power management circuits, autonomous systems, ultra-low power biomedical devices and circuit design in emerging technologies. She has published in major conferences and journals in the field including ISSCC, VLSI Circuits and Technology, IEDM, JSSC. Her research work has been featured by several media outlets including MIT News Office, CNBC, and Electronics Weekly.



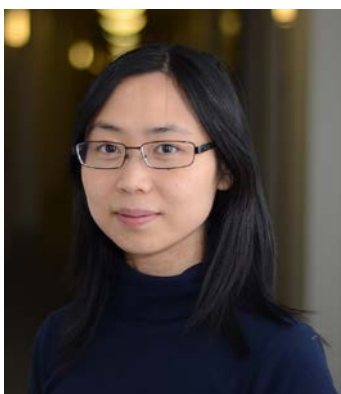
Carly Kenkel will be joining the USC Department of Biological Sciences (MEB) as an Assistant Professor in Fall 2017. She is a US National Science Foundation International Postdoctoral Research Fellow currently working at the Australian Institute of Marine Science in Townsville, QLD. Her research uses a combination of lab experiments and genomic methods to investigate the evolution of symbiont transmission mode using reef-building corals as a model system. She was a Fulbright Research Fellow to Thailand in 2007-2008 after earning her BS from The State University of New York at Stony Brook. She received her PhD in Ecology, Evolution and Behavior from the University of Texas at Austin in 2014.



Lindsey Schier will be joining the USC Department of Biological Sciences (HEB) as an Assistant Professor in Fall 2017. Lindsey received her PhD in Behavioral Neuroscience from Purdue University in 2011. Since then she has been working as a postdoctoral researcher at Florida State University. In 2013, she was awarded a National Research Service Award (NRSA) postdoctoral fellowship from the NIDCD.



Shaama Mallikarjun Sharada will be joining the USC Department of Chemical Engineering and Materials Science as an Assistant Professor in Fall 2017. She received her Bachelor's and Master's degree in Chemical Engineering from the Indian Institute of Technology, Bombay, and her PhD from the University of California at Berkeley. She is currently a postdoctoral researcher at Stanford University. She is interested in the development of quantum chemistry tools for in silico chemistry and catalysis.

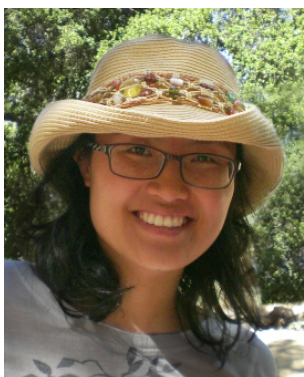


Sze-chuan Suen will be joining the USC Department of Industrial and Systems Engineering as an Assistant Professor in Fall 2016. She received her PhD in the department of Management Science and Engineering from Stanford University in 2016. Her research interests include using applied mathematical models to identify epidemiological trends and evaluate the cost-effectiveness of health policies to support informed decision-making. Her research draws from techniques in simulation, dynamic systems modeling, cost-effectiveness analysis, and decision analysis. In particular, her previous simulation and optimization work focused on the control of tuberculosis in resource-constrained settings, with emphasis on policies to address drug-resistance.



Cristina Zavaleta will be joining the USC Department of Biomedical Engineering as an Assistant Professor in Fall 2017. Prior to joining USC, Cristina was a postdoctoral scholar in the Molecular Imaging Program at Stanford University. She completed her PhD in Radiological Sciences at the University of Texas Health Science Center in San Antonio in 2006.

The following faculty joined USC during the 2015/2016 academic year.



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 a MEng in Electrical & Electronic Engineering, both from Imperial College, London.

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, 2016-2017

Name	Title	School	Proposal
Elena Pierpaoli	Professor, Physics and Astronomy	Dornsife	"A multi-wavelength study of galaxy clusters"

Formal Program Awards

Program	# Awards
Faculty Recruitment / Faculty Retention	19
Major Support for Current Faculty	1
WiSE Gabilan Jr. Chair	5
Lloyd Armstrong, Jr. Chair	1
Support for Facilitating Diversity in Faculty Searches	7
Faculty Bridge Funding	0
Supplemental Faculty Support	38
Merit Award for Excellence in Postdoctoral Research	2
Graduate Top-Off Awards	4
Merit Fellowships for Current PhD.	4
Travel Grants	81
Undergraduate Research Grants	53
Child Care Subsidies	11
Support for Faculty Pregnancy, Childbirth , and Adoption	0
Support for PhD. and Postdoc Pregnancy, Childbirth, and Adoption	0
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 2015-2016, these awards included:

Group	Purpose
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 Computing	To support the annual activities for women undergraduates and PhD students in computer science and engineering.
Women in Chemistry	To support the annual activities for women postdocs and PhD 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 the sciences.
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 (MEB)
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 (MEB)
Irene Chiolo	Assistant Professor	Biological Sciences (MCB)
Carly Kenkel	Assistant Professor	Biological Sciences (MEB)
Naomi Levine	Assistant Professor	Biological Sciences (MEB)
Carolyn Phillips	Assistant Professor	Biological Sciences (MCB)
Lindsey Schier	Assistant Professor	Biological Sciences (HEB)

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
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
Andrea Hodge	Professor	Chemical Engineering and Materials Science
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
Veronica Eliasson	Associate Professor	Aerospace and Mechanical Engineering
Malancha Gupta	Associate Professor	Chemical Engineering & Materials Science
Eva Kanso	Associate Professor	Aerospace and Mechanical Engineering
Yan Liu	Associate Professor	Computer Science
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
Dina El-Damak	Assistant Professor	Electrical Engineering
Stacey Finley	Assistant Professor	Biomedical Engineering
Aleksandra Korolova	Assistant Professor	Computer Science
Megan McCain	Assistant Professor	Biomedical Engineering
Kelly Sanders	Assistant Professor	Civil and Environmental Engineering
Maryam Shanechi	Assistant Professor	Electrical Engineering
Sharma Sharad	Assistant Professor	Chemical Engineering & Materials Science
Sze-Chuan Suen	Assistant Professor	Industrial and Systems Engineering
Alejandra Uranga	Assistant Professor	Aerospace and Mechanical Engineering
Phebe Vayanos	Assistant Professor	Industrial and Systems Engineering
Minlan Yu	Assistant Professor	Computer Science
Cristina Zavaleta	Assistant Professor	Biomedical Engineering

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 2015-2016. The list of candidates is below:

Yuanhui Zhang	Industrial and Systems Engineering	1/28/2016
Sze Suen	Industrial and Systems Engineering	2/2/2016
Kimberly Parker	Civil and Environmental Engineering	2/3/2016
Crystal Senko	Physics and Astronomy	2/4/2016
Lindsey Schier	Biological Sciences (HEB)	2/11/2016
Anne Taylor	Biomedical Engineering	2/16/2016
Tong Wang	Industrial and Systems Engineering	2/17/2016
Anima Anandkumar	Computer Science	2/18/2016
Marianna Sadagurski	Biological Sciences (HEB)	2/23/2016
Dina El-Damak	Electrical Engineering (EP)	2/25/2016
Priya Shah	Chemical Engineering and Materials Science	2/25/2016
Jennifer Sidey	Aerospace and Mechanical Engineering	3/1/2016
Iolanda Leite	Computer Science	3/1/2016
Liwen Wan	Chemical Engineering and Materials Science	3/3/2016
Florence Shubotz	Earth Sciences	3/3/2016
Jessica Oakes	Aerospace and Mechanical Engineering	3/8/2016
Mona Zebarjadi	Electrical Engineering (EP)	3/8/2016
Julie Huber	Earth Sciences	3/8/2016
Janna Naworth	Aerospace and Mechanical Engineering	3/10/2016
Olga Russakovsky	Computer Science	3/23/2016
Linh Thi Xuan	Computer Science	3/23/2016
Guari Joshi	Electrical Engineering	3/24/2016
Carlee Jo-Wong	Electrical Engineering	4/5/2016
Julia Ruben	Computer Science	4/18/2016
Carly	Biological Sciences (MEB)	4/19/2016
May Wang	Biomedical Engineering	5/11/2016

APPENDIX 3:

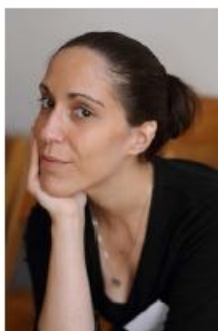
SAMPLES OF WISE EVENTS FLYERS

The USC Women in Science and Engineering Program



WiSE Talk with Lynn Kamerlin, PhD

"Empowerment of Women in the Academic World"



Wednesday, November 18, 2015

Refreshments at: 3:30pm

Talk: 4:00pm

WiSE Suite, DRB 232

Associate Professor of Structural Biology at the Uppsala University (2014-Present). Formerly Assistant Professor at Uppsala (2011-2014) and Stockholm Universities (2011). ERC Starting Independent Research Grantee and Wallenberg Academy Fellow. Member of the Young Academy of Europe (Chair, 2014-2015). Her research sits at the interface between chemistry, biology and physics, using advanced computational tools to understand the chemical basis for the evolution of protein function. In particular, she has made substantial contributions to our molecular understanding of enzyme catalysis, for which she received the 2012 Sven and Ebba Christina Hagberg prize in Biochemistry from the Royal Swedish Academy of Sciences (2012), and the Silver Jubilee Prize from the UK Molecular Graphics and Modeling Society (2013). She has also been an invited or plenary speaker at several of the leading conferences in her field. In addition to her research activities, she is deeply committed to empowering women in academia, in particular in natural sciences and technology. This includes (but is not limited to) work with the YAE as well as coordinating a faculty-wide mentorship programme for young female academics at Uppsala University, with the goal of both encouraging highly promising young female scientists to stay in academia, and guiding them to the best career decisions to facilitate this.

Contact WiSE at (213) 740-0996 or wiseprog@usc.edu for further details

The USC Women in Science and Engineering Program



Presents

WiSE Talk with
Bara Floyd, Senior Lecturer
Human and Evolutionary Biology

"Stress Management"

Tuesday, April 12, 2016

Talk: 12:30pm

WiSE Suite, DRB 232

LUNCH PROVIDED

"It was the best of times, it was the worst of times"

Charles Dickens

Most faculty have encountered students that are overwhelmed with school and college life. College brings higher academic standards than high school and expectations are greater. Many students are also far away from home for the first time. How can we identify symptoms of stress and help students develop effective stress management tools? We will be discussing symptoms of stress, poor & effective coping mechanisms and how stress is a function of our perceptions.

Bara Floyd (Senior Lecturer, Biological Sciences/PHED 160: Stress Management instructor) will be leading a talk on "Stress Management". Stress is a part of life and we all experience it. Therefore, the goal of this talk is not to eliminate stress but to learn how to manage it.

Contact WiSE at (213) 740-0996 or wiseprog@usc.edu for further details



Join us to hear about exciting research being done across STEM disciplines at USC!

Attendees will have a chance to win an Amazon gift card. Light refreshments will be provided. The event is open to all undergraduate students at USC.

STEM Bytes: Introduction to Research in Science and Engineering

FRIDAY,

APRIL 15, 2016

**Hedco Neuroscience Building (HNB)
Room 100
3:00 - 4:00pm**



**3:00pm: Professor
Craig Stanford,
Department of
Biological Sciences**

***The New
Chimpanzee: Recent
discoveries about
chimpanzee
behavioral ecology,
with implications for
human evolutionary
biology***

**3:30pm: Professor
Stephan Haas,
Department of
Physics and
Astronomy**

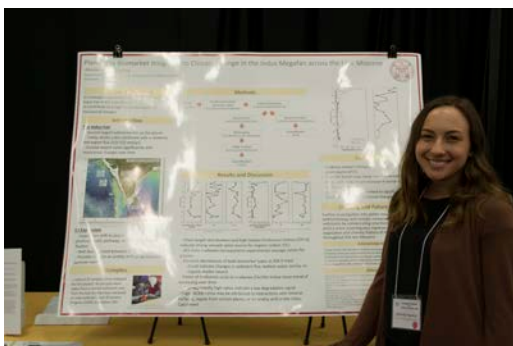
***What's cool about
low-dimensional
materials?***

**WOMEN IN SCIENCE
AND ENGINEERING
(WISE) PROGRAM**
1042 Downey Way, DRB
232
Los Angeles, CA 90089

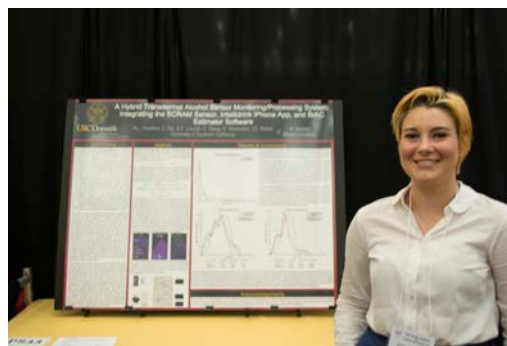
Wise.usc.edu
(213) 740-0996
wiseprog@usc.edu

APPENDIX 4:

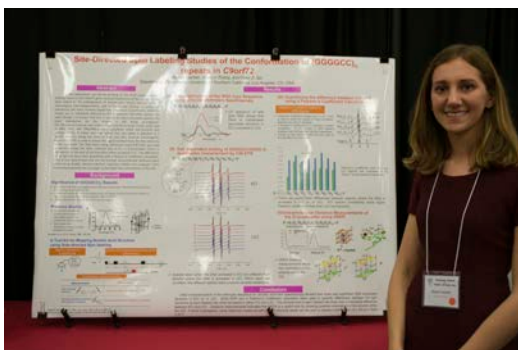
WISE EVENTS: UNDERGRADUATE RESEARCH SYMPOSIUM & WISE AWARDS RECEPTION



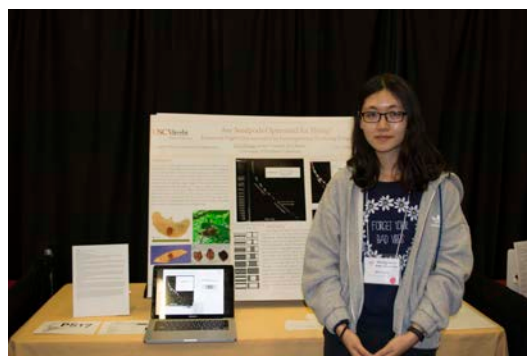
WiSE Undergraduate, Alexandra Figueroa



WiSE Undergraduate, Ashley Hawkins



WiSE Undergraduate, Alyssa Tsenter



WiSE Undergraduate, Min Zheng



Recipients of the WiSE Merit Award for Excellence in Postdoctoral Research, Kate White and Annette Rowe



Recipient of the WiSE Leadership Award for Students and Postdoctoral Scholars, Candy Hwang

APPENDIX 5: WISE NEWSLETTERS

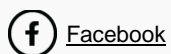


March 23, 2016

**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 Undergraduate Fellows Lunch

Wednesday, March 30, 2016

1:00pm

DRB 232

Faculty Networking Lunch

Thursday, March 31, 2016

12:00pm

DRB 232

Faculty only

WiSE Undergraduate Fellows Lunch

Tuesday, April 5, 2016

12:00pm

DRB 232

Wise Advisory Board Meeting

Thursday, April 7, 2016

12:00pm

DRB 232

WiSE Talk- Stress Management with Bara Floyd

Tuesday, April 12, 2016

12:30pm

DRB 232

For more information [CLICK HERE](#)

[RSVP HERE](#)

STEM Bytes

WiSE Undergraduate Research Seminar

Open to all undergraduates

Friday, April 15, 2016

3:00-4:00pm

HNB 100

For more information [CLICK HERE](#)

WiSE Undergraduate Fellows Lunch

Thursday, April 21, 2016

12:00pm

DRB 232

Upcoming Deadlines

Leadership Award for Students and Postdoctoral Scholars

Nominations Due: March 30

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, in 2015 for her outstanding service while serving as President of the Women in Chemistry (WiC) organization at USC. Nominations will be reviewed by the WiSE Advisory Board.

Members of the WiSE-community should send letters of nomination detailing the nominee's outstanding contributions to the scholarly community to wiseprog@usc.edu. All undergraduate students, graduate students and postdoctoral scholars at USC are eligible to be nominated.

Hanna Reisler Mentorship Award

Nominations Due: March 31

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.

We ask that letters of nomination for this year's Hanna Reisler Mentorship Award be sent to wiseprog@usc.edu by March 31, 2016. Nominations will be reviewed by an awards committee, consisting of previous award recipients, with an awardee to be announced in April. All members of the university community are eligible to be nominated. Nominators should be members of the WiSE Community. All nominations will be kept for consideration for a total of three years.

WiSE Undergraduate Research Experience --Researchers

Application Deadline: April 1

For more information [CLICK HERE](#)

The goal of this program is to provide upper level undergraduate students with first-hand experience in laboratory based research, and to thereby encourage promising students to pursue graduate studies in the sciences and/or engineering. Upperclassmen who have an established working relationship with a faculty mentor submit a research project proposal. If awarded, they commit to participating in WiSE programming efforts throughout the academic year and receive a substantial grant to conduct research. For most students this research will be conducted during the summer months, however, other arrangements can be made depending on disciplinary needs.

Award Amount: A \$3,000 grant the semester in which research is conducted, \$500 during each of the Fall and Spring Semesters for participation in the WiSE Research Programming Series, and \$500 in advisor support.

Merit Fellowship for Current Doctoral Students

Application Deadline: April 8

For more information [CLICK HERE](#)

The Merit Fellowship for Current Doctoral Students is offered to current Ph.D. students at USC who demonstrate exceptional work in their field. Two candidates will be chosen from the USC Dana and David Dornsife College of Letters, Arts, and Sciences and two from the Viterbi School of Engineering. Candidates are nominated by the faculty. Each one-year WiSE Fellowship carries a stipend of \$5,000. To be eligible for the Merit Fellowships students must plan to be enrolled full-time for both the upcoming Fall and Spring semesters, be in at least their fourth year of study or passed their qualifying exams, and be funded by a 50%-time research assistantship, teaching assistantship, or fellowship during that period. Expected date of graduation should not be earlier than the Spring semester.

Other Opportunities

UC Berkeley College of Engineering, Engineering Preview Day

Applications due: April 1, 2016

The UC Berkeley College of Engineering is hosting its fourth annual Engineering Preview Day, April 27-30, 2016. This 3 day event is for current juniors who intend to pursue a PhD in engineering. Preview Day provides students the opportunity to meet individually with engineering faculty in their discipline, socialize with Berkeley graduate students, network with campus research centers and Bay Area National Labs. More details and the on-line application can be found online: <http://engineering.berkeley.edu/academics/graduate-programs/graduate-outreach/engineering-preview-days>. The deadline to apply is April 1.

Women, underrepresented minorities, and military veterans are strongly encouraged to apply.

Faculty In the News

Congratulations to Assistant Professor **Naomi Levine** (Biological Sciences, Marine Environmental Biology) on being recognized as one of the 2016 class of Sloan Fellows in the Ocean Sciences division.

Congratulations to Professor **Andrea Hodge** (Chemical Engineering and Materials Science) on receiving the Early Career Achievement

Award for Alumni of Materials Science and Engineering at Northwestern University.

Articles of Interest

[XY Bias: How Male Biology Students See Their Female Peers](#)

[She Wanted to Do Her Research. He Wanted to Talk 'Feelings.'](#)

[Group dynamics: A lab of their own](#)

[Gender Bias in Academe: An Annotated Bibliography of Important Recent Studies](#)

[What Is It Like To Be 'The Only Woman In The Room'?](#)

[26 of the most powerful female engineers in 2016](#)

[The Subtle Ways Gender Gaps Persist in Science](#)

[Pioneering women in STEM-- how many do you know?](#)

[Exclusive: Marvel launches program for girl scientists](#)



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