

## She Is A Scientist



Our series continues on February 20<sup>th</sup> at 5 pm in Seelye 106 with Dr. Bonita London, Professor of Psychology at SUNY—Stony Brook presenting about “Gender-STEM” identity compatibility among women scientists. Dr. London’s research focuses on how people respond to their academic and social contexts based on their social identities as well as their own sense of skill and competence. Please announce to your classes!



SMITH COLLEGE

# FROM THE CLARK SCIENCE CENTER DIRECTORS’ OFFICE

January 2015

Science Education, at a Crossroads

[Undergraduate Gains Tied to Hands-On Experiences](#)

[Colleges Reinvent Classes to Keep Students in Science](#)



Headlines of recent features in *The Chronicle of Higher Education* and *The New York Times* (links to stories above) tell about the transformation in teaching taking place in science classrooms around

the country. Instead of relying on lectures and cookbook lab experiments, today’s classrooms are becoming increasingly interactive, student-centered, and inquiry-driven. What is so compelling about these changes is that they are spurred by *scientific research* on STEM education. This research consistently finds that science students taught with active learning approaches—everything from using clickers to course-based research experiences—perform better on class material, fail less frequently, and evidence improved rates of persistence in the science pipeline. Scott Freeman and colleagues confirmed these results when they recently published a [2014 meta-analysis](#) examining data from a whopping 255 studies finding benefits of active learning across STEM disciplines.

At Smith, we have long recognized the importance of actively engaging students through rigorous coursework and student-faculty research collaborations. All around the Science Center, I see colleagues creating dynamic and animated classrooms where they actively challenge students with course material and use the questions, ideas, or data that emerge to determine how to deepen student curiosity and understanding.

What have we learned from our innovative efforts to date? One thing, for sure—this kind of transformative work is challenging. It requires energy, resources, and creativity; it requires a way of teaching different from the way so many of us (and our students) have learned. Already, our curriculum is filled with successes created by the kinds of pedagogical innovations receiving national attention. As a community, we [imagine a future](#) that pushes our classrooms toward even more active learning. Please share your ideas with me about how we can collaborate to transform our classrooms into spaces that challenge our students to develop the disciplinary expertise necessary for success in today’s complicated world.

--Patty DiBartolo

## She is a Scientist

A speaker series examining gender and the STEM disciplines



• Why aren't more women in science?

Katherine Aidala, Ph.D.  
Associate Professor of Physics, Mount Holyoke College  
Monday, October 20, 2014, 4:30–6 p.m., Seelye 106



“Gender-STEM” Identity Compatibility Among Women Scientists

Bonita London, Ph.D.  
Associate Professor of Social and Health Psychology,  
Stony Brook University  
Tuesday, February 10, 2015, 5–6:30 p.m., Seelye 106



Girls and Women in Science, Technology, Engineering and Mathematics: STEMing the Tide and Broadening Participation in STEM Careers

Niranjana Dasgupta '92, Ph.D.  
Professor of Psychology, Director of Faculty Equity and Inclusion,  
University of Massachusetts, Amherst  
Monday, April 20, 2015, 4:30–6 p.m., Seelye 106



The Changing Status of Women in Science: The MIT Story (1964–2014)

Nancy Hopkins, Ph.D.  
Angen, Inc. Professor, MIT Department of Biology  
Tuesday, May 12, 2015, 9–10:30 a.m.  
Faculty discussion to follow, 11 a.m.–1 p.m.  
Campus Center Carroll Room

Sponsored by the Clark Science Center, The Lazarus Center for Career Development and the Smith College Lecture Committee



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## Welcome to Mentoring: Valerie Joseph

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Valerie Joseph is the new AEMES Mentoring Coordinator. She comes to us from UMass where lectured in the Legal Studies Program. She is presently a doctoral candidate in Cultural Anthropology. Valerie's commitment to identifying and addressing social and structural biases is at the core of her anthropological research, and also led her to the AEMES position. Supporting women in their academic ambitions is, in her view, an exciting mission of social justice. Valerie sees a clear connection between her research and professional work and invites everyone (seriously!) to her doctoral defense in May where they will get an introduction to the fruits of her research.



## Another Great HHMI EXROP Year!



Smith nominated four students for the highly competitive EXROP summer research program at HHMI. Thank you to our nominating committee: Mary Harrington, Kalina Dimova, and Rob Dorit. This year's nominees are:

### Melody Cao, 2016

A junior, engineering and physics double major. In EXROP, she hopes to pursue her interest in the medical applications of particle physics. She plans to attend graduate school in biomedical engineering.

### Jessica Morgan, 2017

A sophomore biochemistry major who also has a concentration in climate change. After graduation, she plans to enroll in an M.D./Ph.D. program.

### Eirini Tsekitsidou, 2016

A junior biological sciences major who also plans a minor in neuroscience. She plans to go to graduate school and intends to have a career as a researcher.

### Naina Zaman, 2016

A junior chemistry major. She plans to go to graduate school to study organic chemistry and is interested in pharmaceutical drug research and development.

We are delighted to announce that, as our newsletter was going to press, we heard that Melody, Eirini, and Naina were offered EXROP awards. Last year, only 78 students were selected for this program nationally!

## FELLOWSHIP COMMITTEE UPDATE

In November, the Goldwater Scholarship nomination committee (Professors Patty DiBartolo, Bosiljka Glumac, and Gwen Spencer) selected four students as Smith's nominees for the 2015 Goldwater competition: Jamie Cyr, '16, MTH and BIOMATH; Arcadia Kratkiewicz, '16, BCH; Katie McGeogh, '16, CHM; Jane Weinstock, '16, GEO.

In early December, the Udall Scholarship nomination committee (Professors Drew Guzwa, James Lowenthal, David Smith) selected three students as Smith's nominees for the 2015 Udall competition: Eleanor Adachi, '17, EGR; Christine Hamilton, '17, EGR; and Lydia-Rose Kesich, '16, BIO.

### IMPORTANT ANNOUNCEMENTS:

February 2 <sup>nd</sup> 2014	Chemistry department SURF pre-applications due
February 12 <sup>th</sup> 2014	"What I Thought I Saw" event, Carroll Room, 7 to 9 pm, sponsored by the SCCD
February 16 <sup>th</sup> 2014	Full SURF applications due for all students
February 27 <sup>th</sup> 2014	Brief faculty recommendations for SURF supervisees due

For more SURF details: <http://www.science.smith.edu/wordpress/clarksciencecenter/student-opportunities/surf/>

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