

Kate Spohr <kspohr@berkeley.edu>

# CEO message: Events, opportunities & updates

1 message

Kate Spohr <kspohr@berkeley.edu>
To: CEO <education.outreach@lists.berkeley.edu>

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### **Events at Berkeley**

**Concrete and virtual manipulatives in STEM learning** - Monday, April 13th, 4:00-5:30 pm, 2515 Tolman Hall. Presenter Andrew Stull's interests are in multimedia learning and STEM, with a particular focus on ways that students learn from physically interacting with objects, concrete or virtual. Sponsored by the Graduate School of Education/SESAME.

**UC Berkeley Global Higher Education Seminar Series** (sponsored by the Center for Studies in Higher Education). First seminar: **Democratization and Massification of Higher Education in Turkey and Challenges Ahead,** Tuesday April 14, 4-5pm, The Matrix, 8th Floor, Barrows Hall—This seminar series focuses on changes in the global landscape of higher education in order to better understand the strategies countries are developing to expand opportunities for their own citizens and to strengthen their competitive position internationally. Bekir Gür, a Turkish Academic and post- doctoral visiting scholar at UC Berkeley, writing a comparative study of American and Turkish higher education, presents the first of the series. The seminar will cover the development of the higher education system in Turkey in terms of massification and democratization. Join us as, Bekir Gür, uncovers the current challenges related to access, quality, and democratization in Turkey.

**Breaking through gender stereotypes in engineering**—Thursday, April 16, 12:00 pm, Banatao Auditorium, Sutardja Dai Hall. Join the discussion on breaking through gender stereotypes with Dr. Jean-luc Doumont, an engineer who uses personal experiences and critical thinking to challenge ideas about gender and stereotypes. Lunch provided. Sponsored by the College of Engineering.

**CEO Monthly meeting: Close-up on the Jacobs Institute for Design Innovation** — Tuesday, April 21, 11:30 am, 303 Doe. The new Jacobs Institute aims to expand the role of design in engineering education at Berkeley. This undergraduate-focused Institute offers hands-on practice with design automation, rapid prototyping, teambased learning, and commercial development across all engineering disciplines and spanning the entire cycle of design, testing and manufacturing. The Institute will be housed within Jacobs Hall, a new 24,000 SF building on the northside of campus and will open in August 2015. The featured speaker is Emily Rice, an engineering graduate and the Jacobs Institute's Director of Programs & Operations. Follow this link to the CEO meeting schedule.

**5 Big Questions: Science at the Theater**, Weds April 29, 7-9 pm. Every discovery and invention starts with a question. From simulating dark matter, to growing food in our cities, to the enormity of tackling the emperor of all maladies, come see Berkeley Lab scientists dive into the big questions that drive their research. **Judy Campisi** - Cancer and aging; **Kai Vetter** - Radiation and public safety; **Shashi Buluswar** - Urban Food Intiative; **Javier Ceja-Navarro** - Beetles, biofuels and coffee; **Ann Almgren** - Simulating dark matter and combustion Go here to RSVP.

#### **Events far and wide**

**2016 National Science Teachers Association National Conference—Invitation for Session Proposals** (deadline April 15) — Proposals are now being accepted for the 2016 NSTA national conference which will be held in Nashville March 31–April 3, 2016. NSTA conferences offer the latest in science content, teaching strategy, and research and are open to science educators of all sorts, both formal and informal. Follow this link to submit a session proposal.

**Environmental Literacy for ALL! 3rd Annual Educator's Conference** Saturday, April 18, John O'Connell High School San Francisco. Learn how to integrate the fields of science and environmental literacy into your classroom or program. Keynote Speaker: Mary Ellen Hannibal, Citizen Science and You. *Free to Bay Area* 

*Educators*. Registration and event information: https://environmentalliteracy3.eventbrite.com<https://environmentalliteracy3.eventbrite.com/

Public Libraries and STEM Conference (August 20-22, 2015) —The inaugural Public Libraries and STEM Conference will take place August 20 - 22, 2015 in Denver, Colorado. This conference is currently open only to invitees: those not specifically invited to attend may submit an indication of interest. The conference will bring together 150 leaders and decision-makers from both the public library and STEM education communities. Public libraries are undergoing a profound transformation as they continue to re-define their role as a valued, knowledge-based community resource. At the same time, STEM organizations (e.g., science museums, STEM professional associations, universities/colleges, research institutions, state and federal agencies) seek to more effectively reach groups historically underrepresented in STEM fields – such as underrepresented minorities, lower-income populations, and women. Together, public libraries and STEM organizations have the potential to dramatically increase the availability of STEM learning opportunities in communities of all sizes.

## **Opportunities**

Intern Coordinator UCSC Cal Teach. The UC Santa Cruz Cal Teach program is seeking a coordinator for their internship program. The job is formally posted, and all applications received by April 20 will be considered. The application link is here: https://recruit.ucsc.edu/apply/JPF00258. Contact: Gretchen Andreasen, Cal Teach Director, UCSC, gha@ucsc.edu.

Math & Science instructors for the UC Berkeley PreCollege TRIO Programs taking place on the UC Berkeley campus this summer. Postdocs interested in teaching careers are strongly encouraged to apply. Please contact Abigail Garcia, Associate Director of Academics. These federally-funded educational outreach programs serve high school students who are low-income and first-generation-to-college.

Education Program Associate, Penn State University, Eberly College of Science office Outreach and Science Engagement (OSE). Full listing is here: https://psu.jobs/job/56485. Responsibilities include: creating and evaluating outreach programs; coordinating faculty, K-12 students, teachers, and community members in both small and large scale science education events; seeking funding through grants and external foundations; researching potential outreach partnerships; advising science faculty on the inclusion of science education and outreach broader impacts in their research proposals; and collaborating on outreach initiatives with internal and external Penn State partners.

#### **News & updates**

Understanding the STEM pipeline (National Center for Analysis of Longitudinal Data in Education Research, Jan. 2015) In this working paper, author Tim Sass investigates the determinants of high school completion and college attendance, the likelihood of taking science, technology, engineering or math (STEM) courses in the first year of college, and the probability of earning a degree in a STEM field. The focus is on women and minorities, who tend to be underrepresented in STEM fields. Tracking four cohorts of students throughout Florida, the author finds that large differences in math achievement across racial lines exist as early as elementary school and persist through high school. However, the study shows that several determinants make a significant difference in the success of women and minorities in STEM fields, including: 1) Immediately attending a four-year college after high school, black and Hispanic students are more likely than whites to take STEM courses during their first year in college; 2) Increased exposure to Hispanic math and science teachers in middle and high school tends to increase the likelihood that Hispanic students take STEM courses during their first year in college, though pairing black students and black math/science teachers does not have the same positive effect; 3) For all students, having high school math and science teachers with a degree in biology, chemistry or math (as opposed to education) is associated with a higher likelihood of taking STEM courses as college freshmen. When pre-college differences in income and math achievement are taken into account, black and Hispanic students are at least as likely as white students to successfully complete a STEM major.

**Do girls like math? The answer matters** (NSF.gov, April 2015) Mathematical and technical occupations and degree programs are considerably more male-dominated in rich, reputably gender-egalitarian societies like the U.S., than they are in poorer, more gender-traditional ones. Countries such as Iran, Romania and Malaysia are among the countries where women earn the largest share of science degrees; and in Indonesia, women earn

nearly half of all engineering degrees. Maria Charles (UC Santa Barbara), with funding from the National Science Foundation (NSF), has been investigating this seeming paradox by studying differences between girls' and boys' attitudes toward math and math-related careers.

The Struggle to Be First: First-Gen Students May Be Torn Between College and Home (California Magazine, Spring 2015) This article takes a closer look at the experiences of first-generation UC Berkeley students--in their own words.

Getting poor kids into the college club: A crucial challenge (New York Daily News, March 31, 2015). Many high achieving, low income high school students receive poor quality college counseling, which means that great national potential is being squandered.

**Op-ed by Reps Lamar Smith and Elizabeth Esty on the importance of STEM education** (Roll Call, March 2015). Inspiring American students to pursue science and math education is a goal shared by Republicans and Democrats. The bipartisan STEM Education Act, passed by the House last month, strengthens science, technology, engineering and mathematics education efforts at federal science agencies. It also, for the first time, expands the definition of STEM to include computer science.

In Defense of STEM Education—An Open Letter To Fareed Zakaria (Huffington Post April, 2015).

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About the Coalition for Education& Outreach (CEO) is an informal network of over 250 staff, faculty, and students who work in education and outreach projects related to science, technology, engineering and math on the UCB campus and in the community. We host an elist and meet monthly during the academic year (October-May). Meetings are designed to encourage networking, information exchange, professional development, and mentoring among our members. Click here to subscribe or unsubscribe to the CEO elist.