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Mentoring Opportunity for Cal Undergrads

This summer the UC Berkeley Graduate Division will again be supporting exceptional undergraduates interested in summer research via the Student Mentoring and Research Teams (SMART) Fellowship. The Smart Program enables doctoral students to create mentored research opportunities for undergraduate students at UC Berkeley. The program provides summer funding for both graduate and undergraduate participants and opportunities to share research results on campus and at national conferences.

The Department of Plant and Microbial Biology is pleased to announce that two of its graduate students will be serving as mentors in the summer of 2016. Riva Bruenn, a graduate student in the lab of Chelsea Specht studying plant biology, will be leading a project titled "Investigating the Evolution of DRIF Transcription Factors and Their Roles in the Floral Symmetry of Tropical Gingers (Zingiberales)."
Mitchell Thompson, a graduate student in the lab of Jay Keasling, studying microbiology, will lead a project titled "Developing Streptomyces venezuelae as a Host Bacterium for Advanced Metabolic Engineering." Students interested in learning more about the Smart fellowship should visit the program website at smart.berkeley.edu. Applications for all undergraduates are due February 26, 2016.

Find out more at smart.berkeley.edu

New Plant & Microbial Biology Department Website

The Department just launched a new web site with a number of improved features to make it easier for users to find information.

The new site is of responsive design, meaning it will auto-adjust to any device you are using. In addition it contains complete and up-to-date information on:

- Our outstanding academic programs - both graduate and undergraduate
- The research of our faculty, postdocs and students
- Lab rosters and a great new search and people-finder feature
- And much more

Check it out at pmb.berkeley.edu

In addition to the new website, the department maintains an Administrative Services website devoted to event management, historical department data, and "the business of doing business at UC Berkeley": iPMB.berkeley.edu

A number of our Principal Investigators also have sites under the PMB umbrella. For a few examples see:

glaunsingerab.berkeley.edu
spechtlab.berkeley.edu
taylorlab.berkeley.edu
fischerlab.berkeley.edu
Spring 2016 Seminar Series Kicks Off

The Department of Plant & Microbial Biology Spring 2016 Seminar Series kicks off Feb. 10 with the First Annual Sydney Kustu Lecture, "Manufacture of the Bacterial Proteome," featuring Carol Gross of UC San Francisco's Microbiology and Immunology department. The seminar will be at noon in Barker Hall 101 followed by a lunch reception in Koshland Hall 338.

Other endowed lectures this semester are the Arnon Lecture "Oxygenic Photosynthesis: Evolution of Distinct Regulatory Mechanisms" on March 2nd, and the Taylor-White Lecture "Getting to the Roots of Rot: Fungal Phylogenomics and the 'End of the Carboniferous Period'" on March 30.

To see the full schedule of seminars, including Student & Postdoc and Plant Gene Expression Center seminars, please visit: pmb.berkeley.edu/seminars

Coates' Solution to Provide Oxygen on Mars

Having discovered flowing, liquid water on the once-imagined arid surface of Mars, NASA scientists are looking to the next missing element needed for human habitability on the Red Planet: oxygen.

Finding a way to produce oxygen on the planet is vital if the space agency is to fulfill its goal of sending humans to Mars sometime during the 2030s, they say.

To see the full article, visit: pressreader.com/usa/san-francisco-chronicle/20151127/textview (scroll right)
Transform your passion into action by attending the "SolutionLab to Nourish 9 Billion." Attendees will work side by side with experts in the food industry to generate and discuss new ideas to address the challenge of feeding 9 billion people by 2050. The goal is to deepen understanding of global food systems while gaining valuable skills in accelerated collaboration, social innovation, and systems thinking, as well as experience pitching a new idea to experts.

Top groups will be eligible to refine their ideas at future gatherings and everyone will learn about actions they can take locally to address the issues.

The SolutionLab at UC Berkeley will take place on Friday, February 26, 2016 at International House, 2299 Piedmont Avenue. For registration please visit [www.netimpact.org](http://www.netimpact.org)

**Glaunsinger Lab Investigates Cell Early Warning System**

Less than two percent of our genome is made up of sequences that produce proteins important for cell function, so what is the role of the remaining 98 percent?

Nearly half of the mammalian genome is composed of transposable elements, also known as "jumping genes" that can copy themselves and move around the genome, in a potentially damaging manner for the cell. For this reason, our cells have found ways to keep these seemingly parasitic sequences turned off—at least most of the time.

Read the full article featuring research in the Glaunsinger Lab, and get a link to the publication at: [pmb.berkeley.edu](http://pmb.berkeley.edu)

**Register Now for Beyond Academia Conference**

Beyond Academia is a graduate student and postdoc-run career education conference that exposes Ph.D. students
and post-docs to career options outside of academia.

Come hear about career experiences beyond the tenure track and learn about companies who value the rigorous training you’ve received during your Ph.D. program. Panel discussions with over 100 professionals on a variety of career tracks will give you the opportunity to hear from successful and creative professionals.

Workshops and networking events allow for personal interaction in an informal setting. Each conference day will also include a light breakfast, networking lunch, and social hour.

Workshop topics will include the job hunt process, identifying transferable skills, writing resumes and cover letters and starting your own business. The panels will discuss data analytics, education, government jobs, non-profit careers, research beyond the tenure track, policy and consulting.

The conference will be held at the Clark Kerr Campus at UC Berkeley on March 14-15, 2016.

For registration and more information, visit beyondacademia.org

Development Impact Lab Explore and Innovate Grants

The Development Impact Lab (DIL) Spring 2016 Explore Award and Spring 2016 Innovate Award competitions are now open. They provide funding for students and researchers interested in piloting or advancing technologies for international development.

DIL Innovate grants (up to $55,000 in total costs) are intended to support the piloting or advancement of a technological innovation for international development. The innovation may be an intervention (a new technology-driven product or service that responds to a specific development challenge) or a measurement tool (an innovation which improves the capture of development outcomes).

DIL Explore grants (up to $5000) are intended to support early-stage exploratory research and international travel to developing countries.

Researchers do not have to come from engineering or computer science backgrounds.

For information on Innovate Grants please visit: dil.berkeley.edu/technology-portfolio/competitions-incentives/dil-innovate-application-spring-2016/

For information on Explore Grants, please visit: dil.berkeley.edu/technology-portfolio/competitions-incentives/dil-explore-travel-grant-application-spring-2016/
"DNA for Dinner" Wins Award

An after-school curriculum "DNA for Dinner," designed by Peggy Lemaux and Barbara Alonso, recently won an award from the American Society of Agronomy for Extension Education Materials. Targeted towards grades 5-8, DNA for Dinner covers a number of topics relating to genetics and biotechnology, and has lessons containing hands-on activities, games and much more.

Official award information can be found at:

Learn more about DNA for Dinner at: ucbiotech.org/dnafordinner/about/index.html

Feedback-Intensive Grantwriting

This is the first in an occasional series spotlighting PMB courses

PMB 297 (Grantwriting and Research Presentations) is offered every spring semester, by Adjunct Professor Sheila McCormick. This spring, there are 14 participants: seven PMB graduate students, three PMB postdocs, three Molecular and Cell Biology students and one visiting scholar from the Department of Environmental Science, Policy, and Management.

Each participant writes a grant in four steps: one-page outline, 2-3 page pre-proposal, 7-10 page preliminary grant, and 7-10 page final grant. McCormick and other students edit/comment on the first three steps. The last class meeting is a mock grant panel, and each grant receives written reviews from McCormick and two class members. One student is taking the class again and submitting another grant.

In weeks two and three (before the outlines are due), each participant presents a 10 minute talk about the topic of their grant, providing background, so that the other members of the class can be informed reviewers - an important feature since the topics are diverse.

Find out more about Sheila McCormick at pmb.berkeley.edu/profile/smccormick

Chelsea Specht Talk on Science and Art

PMB's own Chelsea Specht will be a featured speaker at the new Berkeley Art Museum and Pacific Film Archive's "Lunchtime Talks" to be held this spring.

Specht will discuss Karl Blossfeldt's early twentieth-century photographs of plant forms from a scientific perspective on Friday, April 15 at 12:15 pm at 2155 Center Street.
For more information and a full list of LunchTime Talks, visit:

bampfa.org/program/perspectives-architecture-life

**Important Dates | Upcoming Events**

**Spring 2016**

1/19 - Instruction Begins

2/10 - Kustu Lecture | 101 Barker Hall (noon)

3/2 - Amon Lecture | 101 Barker Hall (noon)

3/16 - Taylor-White Lecture | 101 Barker Hall (noon)

3/21 to 3/25 - Spring Break

4/16 - Cal Day

5/15 - College of Natural Resources Commencement

5/30 - Memorial Day

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