

BERKELEY LAB



# BioSci Communiqué

06.07.17

## Events Highlights

**Refer to the [Area Events Calendar](#) for events, details, and up-to-date information.**

### John Lawrence Seminars

*The Plant Immune System and Microbiome* | Jeffery Dangl, University of North Carolina at Chapel Hill | June 13, 11 AM - 12 PM, Walnut Creek, Rm 149A/B

*Towards Population-level Microbiome Monitoring: The Flemish Gut Flora Project* | Jeroen Raes, University of Leuven, Belgium | June 13, 4 - 5 PM, Building 15, Rm 253

### Program Development Brown Bags: Federal Budgets and Funding Module

Mary Maxon and Katy Christiansen will discuss the federal budget process, how science and technology budget priorities are determined, and what scientists and others can do to influence the process.

June 20, 12 - 1 PM, Aquatic Park, Rm 977-141

June 28, 12 - 1 PM, Building 67, Rm 3204

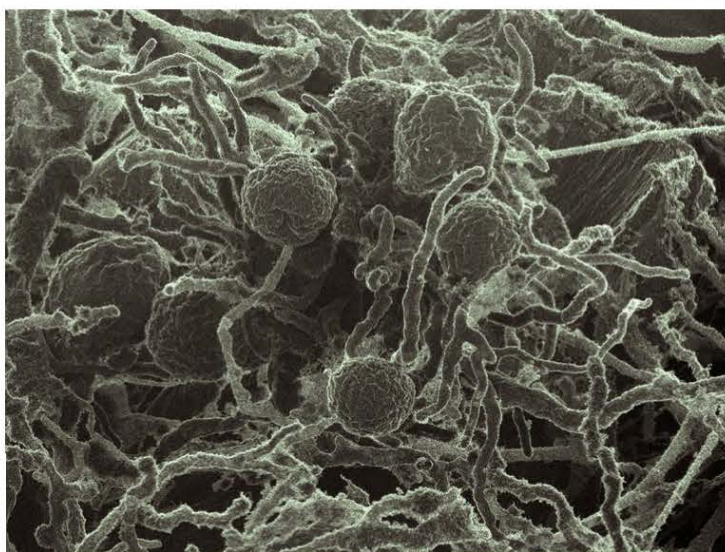
June 29, 12 - 1 PM, Emery Station, Rm 4132 & 4134

## Events Highlights

## News Roundup

- Thirdhand Smoke Study Gets Renewed Media Attention [>>](#)
- Papers by JBEI/BSE Researchers Among Journal's Most Impactful Articles [>>](#)
- Fungal Enzyme Clusters Promote Efficient Biomass Breakdown [>>](#)
- A Hollow Pyramid Unlocks Principles of Protein Architecture [>>](#)
- Scientists Sequence Genome of Snail That Spreads Parasitic Worm [>>](#)
- Green Alga Sequencing Could Advance Clean Energy, Bioproducts [>>](#)
- Designing Cyclic Oligomers: Greater than the Sum of Their Parts [>>](#)
- JGI Finds A New Major Gene Expression Regulator in Fungi [>>](#)

More news on the Biosciences Area [website](#).



## ALD Message

The President's 2018 Budget Request (PBR) was submitted to Congress on Tuesday, May 23, and following its release, the National Lab Directors and Associate Lab Directors have engaged in a number of meetings and phone calls with DOE officials. There are many efforts underway at DOE headquarters to develop and disseminate guidance to the Labs. It's clear to me after talking with a number of DOE officials that they are working very hard to support their investments at the Labs, including continuing a focus on early career researchers, among other efforts of importance to our Area.



### JGI Hosts Secondary Metabolites Meeting

Registration is ongoing for the DOE Joint Genome Institute's (JGI) Microbial and Plant Systems Modulated by Secondary Metabolites Meeting, set for July 24-26 in Walnut Creek. The keynote speakers are Jo Handelsman, Director of the Wisconsin Institute for Discovery, and Jerry Tuskan of Oak Ridge National Laboratory. For the list of confirmed speakers, information on poster abstract submission, and to register, go [here](#).

### Mining Microbial Genomes and Metagenomes for Biotechnological Applications Workshop

JGI will host this workshop just prior to the Society for Industrial Microbiology and Biotechnology Annual Meeting on July 30 in Denver, CO. Program details and [registration](#).

### Berkeley Lab Celebrates Pride Month

Several events have been organized by the Lambda Alliance, Berkeley Lab's LGBTQ association. All Berkeley Lab employees, friends, and family members are invited, including allies.

#### Networking Events

The Lambda Alliance is hosting its second annual [LGBTQ Pride Networking Event](#) at 5:30 PM on Friday, June 9, at Townie (1799 University Avenue, Berkeley). On June 20, JGI will have a

Here at the Lab, our Operations teams are working on scenario planning and implementation approaches for possible budget cuts that we may have to face in October and beyond. Remember that Congress is the entity that actually grants the federal funding, and some members of Congress have publicly indicated support for increased science funding compared to what's seen in the PBR. I encourage you to refer to [Mike Witherell's recent TABL article](#) if you haven't already because it has a lot of useful information about the budget process and links to related resource materials. As I mentioned in my email in March following the release of the FY18 budget blueprint, we've been through challenging times in the past, and with our strong support in Washington, DC, and here in California, I know we'll get through this, too.

Even as things may get more challenging for us, we are not wavering from our commitment to provide an inclusive and rewarding workplace; our success depends on the development of a robust Area-wide mentoring program that serves researchers and non-researchers alike. Mary Maxon and Helen Cademartori have been working with Deb Agarwal from the Computing Sciences Area (CSA) to tailor the very successful mentoring program used by CSA for nearly a decade to our needs. We're committed to identifying and addressing the mentorship needs of our staff, and your participation is critical. The Biosciences Area Mentor program will be a major focus of our annual Biosciences Area retreat this August 30. I'm really looking forward to the networking activities aimed at helping staff across our Area forge productive relationships to drive new collaborations, increase inclusion, and improve retention. While we are gathering information, it would be great if you could think about your mentorship goals – communications skills? budgeting? career advice? – as well as whether you'd be willing to offer some of your time as a mentor to help others who could benefit from your expertise. I am open to ideas, so if you know of some best practices from your previous employers that you'd like to see brought to our Area, please contact [Mary](#) or [Helen](#).

Regards,  
Jay Keasling

## Area News

### Biosciences@ALS

Several groups from the Advanced Light Source (ALS) hosted a booth at the 67th Meeting of the [American Crystallographic Association](#) in New Orleans at the end of May. Staff from the crystallography, small-angle X-ray scattering, and X-ray footprinting beamlines were present, and flyers for infrared and soft X-ray tomography beamlines were also available. Many structural biologists from around the country visited the booth and participated in a jelly bean counting contest, which was won by a Berkeley Center for Structural Biology user from the pharmaceutical company [Nurix](#).





Pride Celebration and Social Hour.



### March with the Lab in San Francisco's 47th Annual Pride Parade

Berkeley Lab's Lambda Alliance is proud to be marching in the 2017 San Francisco Pride Parade taking place on Sunday, June 25. Everyone must be [registered](#) in order to participate. Registrants will be contacted with logistical information as the date approaches.

### Free Movie Screenings

This year's schedule of screenings includes Academy Award-winning *Moonlight*, *Don't Call Me Son*, and *Trembling Before G-d*. Screenings are in Building 50 Auditorium and on June 22, JGI will host an encore screening of *Moonlight*.

Check the Lab's Diversity and Inclusion [events calendar](#) for even more Pride month events.

## Video Highlights

### Doing Science in Space



The lecture given by astronaut and molecular biologist [Kate Rubins](#), the first scientist to sequence DNA in space, has been [archived](#) (LDAP-protected). The event was sponsored by the Molecular Foundry and JGI.

### Microbial Dark Matter

## Biosciences Employees Complete Emergency Medical Technician Basic Training

Three individuals from the Biosciences Area were among a dozen employees to complete Emergency Medical Technician Basic (EMT-B) training to join Berkeley Lab's volunteer Medical Emergency Response Team (MERT). The training, provided by



Protective Services, comprised more than 170 hours of classroom instruction, hands-on demonstrations, ambulance ride-alongs, and testing. Congratulations to Gaby Fuentes-Creollo (front row, 3rd from right),

Barrier Facility Manager in Biosciences Operations at Berkeley; Christine Ichim (back row, 3rd from right), postdoctoral scholar in Mina Bissell's lab in Biological Systems & Engineering (BSE); and Hoang Pham (back row, far right), technical affiliate working with BSE's Abby Dernburg.

## Operations Updates

### 2017 Lab Performance Review

Please remember to complete your [self assessments](#) by June 12. For more information about the Performance Management Process (PMP), read the [PMP kick-off announcement](#).

### Safety & Clean-up Days

Many thanks to our Safety teams who held very successful Safety & Clean-up Days throughout the Area. These events are incredibly helpful in maintaining efficient, safe, and clutter-free workspaces.

### Welcome to Aquatic Park, KBase!

We are delighted to have the DOE Systems Biology Knowledgebase (KBase) now colocated with their Biosciences Area colleagues at 717 Potter Street. Thanks to David Acevedo, Peter Marietta, and Ben Sandmann for doing such a terrific job of preparing and executing this move. KBase will be joined by other groups, including ENIGMA researchers, over the course of the summer.

## Awards & Honors

### Irina Silva Receives Biotech Partners Exceptional Mentoring Partner Award

On Wednesday, May 31, Biotech Partners honored Irina Silva, Communications and Outreach Manager for the Joint BioEnergy Institute (JBEI), for her outstanding support of their internship program. Last year, Silva served as a mentor partner, organizing development activities and internship opportunities for seven students at JBEI and the Advanced Biofuels Process Demonstration Unit (ABPDU). Skylar Johnson and Emara Shabir, a Berkeley High





JGI recently released videos on YouTube that feature attendees of their April [NeLLi meeting](#):

Why Mine Microbial Dark Matter? [bit.ly/JGI-MDM-Video](http://bit.ly/JGI-MDM-Video)

[Slava Epstein](#) speaks about the importance of studying microbial dark matter.

## IPO News

### Biosciences Startups

Berkeley Lab's Innovation and Partnerships Office (IPO) has completed option agreements for two startups based on Berkeley Lab Biosciences technologies: Acepodia, developing immuno-oncology therapies, and Coax Biosystems, enabling design and management of microbial communities used in health, industrial, or agricultural processes.

## @LBNLBioSci Twitter Highlight



May is nationally recognized as cancer research month. To raise awareness about the progress made in this field, the Biosciences Area disseminated its latest achievements in cancer research [@LBNLBioSci](#). Check out the tweets on our [Storify page](#).

School student who interned at JBEI's Fuels Synthesis Division last summer, presented the award at the Biotech Partners' 5th Biennial Gala Celebration in Oakland. Pictured left to right: Shabir, Silva, and Johnson.

### Berkeley Public Schools Fund Honors Mary Wildermuth

Wildermuth, an EGSB faculty scientist, was recently recognized at the Berkeley Public Schools Fund Spring Luncheon for developing "Be a Scientist," a seventh-grade program that matches 200 UC Berkeley science mentors with individual students at Berkeley's three middle schools to help them learn about scientific inquiry and investigation.

### JBEI's Vy Ngo Awarded Grace Fimognari Memorial Prize

Vy Ngo, student assistant with JBEI's Feedstocks Division was awarded the Grace Fimognari Memorial Prize during UC Berkeley's Molecular & Cell Biology (MCB) 2017 Commencement. The Prize established in 1969 is awarded to an outstanding graduating senior in the Biochemistry and Molecular Biology (BMB) emphasis of the MCB major. Ngo initially joined JBEI as part of the Community College Internship (CCI) program.

### Firestone Elected to National Academy of Sciences

Mary Firestone, a faculty scientist with a secondary affiliation in the Environmental Genomics and Systems Biology Division and professor of soil microbiology at UC Berkeley's Department of Environmental Science, Policy and Management, has been elected to the National Academy of Sciences in recognition of her distinguished and continuing achievements in original research.

### Lab Recognition Awards

Please consider nominating your colleagues for the 2017 Director's Awards for Exceptional Achievement and Berkeley Lab Prize-Lifetime Achievement Award by June 30. Detailed [information](#).

## Outreach

### JGI participates in STEAM Day for Foothill Middle School

On Friday, May 19, ten JGI volunteers conducted a 3-hour hands-on demonstration for over 330 Walnut Creek 6th graders at Arbolado



Park during an event dedicated to STEAM – Science, Technology, Engineering, Art, and Math. The activity involved helping students conceptualize DNA sequence by assembling four colors of beads representing nucleotides into "genes" from JGI target organisms. These included poplar, white rot, a diatom, a metal-reducing bacteria, and a termite-gut protist. Pictured left to right: Khouanchy

Oakgrove, Natasha Brown, Robert Evans, Danielle Graham, Jenifer Johnson, Tom Vess.

### Diversity and Inclusion Survey

The Diversity and Inclusion Office (DIO) partners with Lab leaders and employees to promote diversity and inclusion (D&I) activities. DIO is requesting employee feedback and your thoughts regarding support for D&I within the Lab and your Area. Please take the anonymous [survey](#) by June 16.



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