



# The 2011 Department of Energy Joint Genome Institute (DOE JGI)

sixth annual

## GENOMICS OF ENERGY & ENVIRONMENT MEETING

March 22-24 / Walnut Creek, California



All functions will be held at the Walnut Creek Marriott, California Ballroom, unless otherwise noted.

## TUESDAY, March 22

5:00 – 6:00 PM	Welcome and Keynote Address
5:00 PM	<b>The Turn-on of LCLS: the X-Ray Free-Electron Laser at SLAC</b> <i>Persis Drell, Stanford University, Director of SLAC National Accelerator Laboratory</i>
5:40 PM	<b>The Gulf Oil Spill: Ecogenomics and Ecoresilience</b> <i>Terry Hazen, Lawrence Berkeley National Laboratory, Joint BioEnergy Institute</i>
6:30 – 10:00 PM	Opening Reception and Poster Session

## WEDNESDAY, March 23

<b>8:30 – 12:00 PM</b>	<b>SESSION I</b>
8:30 AM	<b>Evolutionary Genomic Analyses of Insect Society: Eat, Drink, and Be Scary</b> <i>Gene Robinson, University of Illinois at Urbana-Champaign</i>
9:00 AM	<b>Comparative Metagenomics of Gut and Ocean: Identification of Microbial Marker Genes for Complex Environmental Properties</b> <i>Peer Bork, European Molecular Biology Laboratory (EMBL) Heidelberg</i>
9:30 AM	Break
10:00 AM	<b>Resequencing in <i>Populus</i>: Towards Genome Wide Association Genetic</b> <i>Jerry Tuskan, Oak Ridge National Laboratory</i>
10:30 AM	<b>Designing Biological Systems for Sustainability and Programmed Environmental Interface</b> <i>Pam Silver, Harvard University</i>
11:00 AM	<b>Spatially and Temporally Resolved Studies of the Human Microbiome</b> <i>Rob Knight, University of Colorado</i>
11:30 AM	<b>DOE JGI New Technologies and Capabilities Available to Users</b> <i>Len Pennacchio, DOE JGI</i>
12:00-1:15 PM	Lunch
<b>1:15 – 3:00 PM</b>	<b>SESSION II – Strategic Planning, User Programs and User Input</b>
1:15 PM	<b>DOE JGI Strategic Overview</b> <i>Eddy Rubin, DOE JGI</i>
1:35 PM	<b>DOE JGI User Program, CSP</b> <i>Jim Bristow, DOE JGI</i>
1:55 PM	<b>User Input on DOE JGI User Programs, Strategic Planning and Other Issues</b> <i>DOE JGI Users, DOE JGI Senior Management</i>
2:40 PM	Break
<b>3:30 – 4:30 PM</b>	<b>SESSION III</b>
3:30 PM	<b>Genomic Analysis of Speciation and Adaptation in <i>Aquilegia</i></b> <i>Scott Hodges, University of California, Santa Barbara</i>
4:00 PM	<b>Low Temperature Regulatory Networks Controlling Cold Acclimation in <i>Arabidopsis</i></b> <i>Mike Thomashow, Michigan State University</i>
4:30 PM	<b>Genomics of Extinct and Endangered Species</b> <i>Stephan Schuster, Penn State University</i>
5:00 – 6:00 PM	Travel to DOE JGI: Bus Service from Marriott
<b>6:00 – 9:00 PM</b>	<b>Reception, Poster Session and Tours at DOE JGI</b>
7:00 – 9:00 PM	Travel from DOE JGI: Bus Service to Marriott

## THURSDAY, March 24

<b>8:30 – 11:45 AM</b>	<b>SESSION IV</b>
8:30 AM	<b>Relating Host Genetic Variation to the Microbiome</b> <i>Ruth Ley, Cornell University</i>
9:00 AM	<b>Insights from Sequencing the World's Most Diverse Crop: Maize</b> <i>Ed Buckler, USDA-ARS, Cornell University</i>
9:30 AM	Break
10:00 AM	<b>Metatranscriptomics of Marine Microbial Communities</b> <i>Mary Ann Moran, University of Georgia</i>
10:30 AM	<b>How to Eat a Wooden Ship: A Genomic View of Wood-eating Bacterial Endosymbiosis in the Shipworm <i>Bankia setacea</i></b> <i>Dan Distel, Ocean Genome Legacy</i>
11:00 AM	<b>Remote Detection of Marine Microbes in Coastal Waters and the Deep Sea Using the Environmental Sample Processor (ESP)</b> <i>Christopher Scholin, Monterey Bay Aquarium Research Institute (MBARI)</i>
11:30 – 1:30 PM	Lunch
<b>1:30 – 4:30 PM</b>	<b>SESSION V</b>
1:30 PM	<b>Hardware and Software Trends in Computational Systems for Biology</b> <i>Kathy Yelick, National Energy Research Scientific Computing Center (NERSC)</i>
2:00 PM	<b>The Physiological Genomics of <i>Panicum</i>: Exploring Switchgrass Responses to Climate Change</b> <i>Tom Juenger, University of Texas at Austin</i>
2:30 PM	<b>How to Lose Half your Genome in 10 million Years and Live to Tell the Tale: Comparative Genomics of <i>Arabidopsis lyrata</i> and <i>A. thaliana</i></b> <i>Magnus Nordborg, Gregor Mendel Institute (GMI)</i>
3:00 PM	Break
3:30 PM	<b>Tackling Metagenomics' Largest Challenge: The Great Prairie Project</b> <i>Jim Tiedje, Michigan State University</i>
4:00 PM	<b>Massive Discovery of Biomass Degrading Genes and Genomes in Rumen</b> <i>Zhong Wang, DOE JGI</i>
4:30 PM	End of User Meeting

## Call for Large-Scale Genome Sequencing Proposals

The JGI Community Sequencing Program (CSP) is now accepting letters of intent for large-scale sequence-based genomic science projects that address questions of relevance to DOE missions in bioenergy, global carbon cycling, and biogeochemistry. Proposals are especially encouraged that address plant-microbe interactions and microbial emission/capture of greenhouse gases.

All projects should:

- Be of significant scale
- Engage large groups of collaborators, and
- Require JGI capabilities in addition to genome sequencing.

Opportunities exist for users to visit the JGI and participate with the JGI staff in the generation and analysis of data.

### Deadline: April 12, 2011

Letters of intent will only be accepted electronically and should be submitted at <http://proposals.jgi-psf.org/>

Applicants will be advised whether to prepare a full proposal within two weeks.

### Full proposals due June 1st

Proposals will be independently peer-reviewed and ranked. Final decisions based on ranking will be made by JGI senior management with final approval given by DOE program management.

# Workshops and Satellite Meetings

## MONDAY, March 21

<b>9:00 AM – 6:00 PM</b>	<b>IMG Workshop</b>	<b>WCM Contra Costa I</b>	<b>Level B1</b>
9:00 AM – 9:00 PM	Basidiomycetes Jamboree <i>(By Invitation Only)</i>	WCM Contra Costa II	Level B1

## TUESDAY, March 22

	<b>IMG-Metagenomes Workshop</b>	<b>WCM Contra Costa I</b>	<b>Level B1</b>
<b>9:00 AM – 12:00 PM</b>	<b>Mycocosm Workshop</b>	<b>WCM CA Ballroom EF</b>	<b>Level B2</b>
	<b>Phytozome Workshop</b>	<b>JGI 149 A/B</b>	
	<b>IMG 101 Workshop</b>	<b>WCM CA Ballroom D</b>	<b>Level B2</b>
<b>1:00 PM – 4:00 PM</b>	<b>RNA Technologies &amp; Analysis Workshop</b>	<b>WCM CA Ballroom ABC</b>	<b>Level B2</b>
2:00 PM – 4:00 PM	JCC Meeting <i>(By Invitation Only)</i>	WCM Sacramento Room	Level B2
4:00 PM – 5:00 PM	Muizer Project Management Meeting <i>(By Invitation Only)</i>	WCM Santa Barbara Room	2nd Floor
6:00 PM – 9:00 PM	Microbial Genomics Program Meeting <i>(By Invitation Only)</i>	WCM San Jose Room	Level B2
7:00 PM – 8:30 PM	JBEI Project Management Meeting <i>(By Invitation Only)</i>	WCM Santa Rosa Room	Level B2

## WEDNESDAY, March 23

8:30 AM – 10:00 AM	Ford BRC Meeting <i>(By Invitation Only)</i>	WCM San Jose Room	Level B2
12:00 PM – 1:00 PM	Aquilegia Project Management Meeting <i>(By Invitation Only)</i>	WCM San Jose Room	Level B2
	Madsen Project Management Meeting <i>(By Invitation Only)</i>	WCM Santa Barbara Room	2nd Floor
7:00 PM – 8:30 PM	GLBRC Project Management Meeting <i>(By Invitation Only)</i>	JGI 345	

## THURSDAY, March 24

12:00 PM – 1:00 PM	Capsella Project Management Meeting <i>(By Invitation Only)</i>	WCM San Jose Room	Level B2
12:00 PM – 1:15 PM	BESC Project Management Meeting <i>(By Invitation Only)</i>	WCM Santa Monica Room	2nd Floor
12:00 PM – 1:30 PM	MGP Single Isolate Non-BRC Users Meetings <i>(By Invitation Only)</i>	WCM Santa Barbara Room	2nd Floor
	Rhizosphere Grand Challenge Meeting <i>(By Invitation Only)</i>	WCM Santa Monica Room	2nd Floor
5:00 PM – 7:00 PM	Diploid Panicum Project Management Meeting <i>(By Invitation Only)</i>	WCM Atrium	

## FRIDAY, March 25

<b>9:00 AM – 5:00 PM</b>	<b>MENGO Workshop</b>	<b>JGI 149 A/B</b>	
9:00 AM – 2:00 PM	IMG-ACT Planning Meeting <i>(By Invitation Only)</i>	JGI 345	

