WUSTL
PLANT & MICROBIAL BIOSCIENCES
ANNUAL RETREAT

October 18th, 2013
Tyson Research Center
Eureka, MO

Keynote Speaker:
Dr. Georgia Drakakaki
Assistant Professor
Hellman Fellow
Department of Plant Sciences
University of California - Davis
Overview

9:00 - 9:25  Check-in (coffee, tea, and donuts served)
9:25 - 9:30  Opening of retreat, remarks and introductions
9:30 - 10:30  Session I: 15-minute talks
10:30 - 11:00  Break
11:00 - 12:00  Keynote address
12:00 - 1:30  Lunch, tour of Tyson, free time
1:30 - 2:30  Session II: 15-minute talks
2:30 - 3:00  Poster overviews: 2-minute talks
3:00 - 4:30  Poster session
4:45 - 5:45  Session III: 15-minute talks
6:00 - 7:30  Dinner
7:30  Poster award
Schedule of Talks

Session I: 9:30 - 10:30

9:30 - 9:45 Dr. Scott Mangan, Washington University
“Integrating plant-microbial interactions into major themes in plant ecology”

9:45 - 10:00 Dr. Kira Veley, Haswell Lab, Washington University
“Leading a double life: MSL10 functions as both a mechanosensitive channel and a regulator of cell death”

10:00 - 10:15 Dr. Soon Goo Lee, Jez Lab, Washington University
“Evolution of Structure and Mechanistic Divergence in Phosphoethanolamine Methyltransferases from Plasmodium, Nematode and Plant Phosphocholine Biosynthesis”

10:15 - 10:30 Dr. Shalon Ledbetter, Kranz Lab, Washington University
“Mitochondrial cytochrome c biogenesis”

Keynote Address: 11:00 - 12:00

“Post Golgi Trafficking in Plants”

Dr. Georgia Drakakaki
Assistant Professor
Hellman Fellow
Department of Plant Sciences
University of California - Davis
Session II: 1:30 - 2:30

1:30 - 1:45  Dr. Xinshuai Qi, Olsen Lab, Washington University
“What do thousands of SNPs reveal about the origin of Asian weedy rice v.s. U.S. weedy rice?”

1:45 - 2:00  Dr. Sangchul Kim, Wang Lab, Danforth Center
“Non-specific Phospholipase C5 and Diacylglycerol Promote Lateral Root Development under Mild Salt Stress in Arabidopsis”

2:00 - 2:15  Tara Enders, Strader Lab, Washington University
“Understanding the Outer Lateral Domain: defining the plant-environment interface”

2:15 - 2:30  Dr. Ben Hudson, Zaher Lab, Washington University
“A role for the ribosome in deciding the fate of damaged RNA”

Session III: 4:45 - 5:45

4:45 - 5:00  Dr. Becky Bart, Danforth Center
“Genomic studies of the Cassava Bacterial Blight pathosystem”

5:00 - 5:15  Dr. Bisco Hill, Levin Lab, Washington University
“A moonlighting enzyme links Escherichia coli cell size with central metabolism”

5:15 - 5:30  Steen Hoyer, Carrington Lab, Washington University
“Transcriptional control of ARGONAUTES”

5:30 - 5:45  Dr. Jen Houghton, Fike Lab, Washington University
“Spatial variability in organic and carbonate d13C linked to sulfur cycling in hypersaline microbial mats”
## Poster Session

### Graduate Students

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amanda Bender</td>
<td>Testing biological sources of variability in leaf wax D/H</td>
</tr>
<tr>
<td>Steven Callen</td>
<td>Sexual Reproduction and Self-compatibility of the Invasive Vine Kudzu (Pueraria montana) in Missouri Roadside Populations</td>
</tr>
<tr>
<td>Tara Enders</td>
<td>The role of MPK1 in auxin signaling</td>
</tr>
<tr>
<td>Elizabeth Frick</td>
<td>Roles for MAP KINASE17 in Arabidopsis thaliana in Peroxisome Proliferation</td>
</tr>
<tr>
<td>Eric Hamilton</td>
<td>Mechanosensitive Channel MSL8 in Pollen Hydration and Germination</td>
</tr>
<tr>
<td>Matthew Kilgore</td>
<td>The cloning and characterization of a norbelladine-4’O-methyltransferase involved in the biosynthesis of the Amaryllidaceae alkaloid galanthamine</td>
</tr>
<tr>
<td>David Korasick</td>
<td>Investigating AUXIN RESPONSE FACTOR (ARF) and Aux/IAA Protein Structure and Interactions</td>
</tr>
<tr>
<td>Ying Li</td>
<td>Functions of IBR1 and IBR10 in the conversion of IBA to IAA</td>
</tr>
<tr>
<td>Sheri McClerklin</td>
<td>Investigating the molecular mechanism of Pseudomonas Syringae virulence protein, AvrRpt2</td>
</tr>
<tr>
<td>Amelia Nguyen</td>
<td>Broad Light-dependent Redox Regulation of Protein Thiols in Cyanobacteria Revealed by Quantitative Site-Specific Proteomics Profiling</td>
</tr>
<tr>
<td>Maggie Wilson</td>
<td>Plastid hypoosmotic stress activates an ABA-mediated signaling pathway leading to an increase in cellular osmolytes.</td>
</tr>
<tr>
<td>Chuanmei Zhu</td>
<td>Investigating the functional relationship of the Arabidopsis FRA1 kinesin and kinesin light chain (KLC) proteins</td>
</tr>
</tbody>
</table>

### Postdocs

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anindya Ganguly</td>
<td>Is processivity important for Arabidopsis FRA1 kinesin function?</td>
</tr>
<tr>
<td>Taylor Weiss</td>
<td>Algaenan-Containing Cell Walls of Microalgae</td>
</tr>
</tbody>
</table>

### Research Personnel

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrie Goodson</td>
<td>The Path to Obesity in the sta6 Strain of Chlamydomonas</td>
</tr>
<tr>
<td>Jannette Rusch</td>
<td>How Chlamydomonas Dismantles Itself</td>
</tr>
</tbody>
</table>

### Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Fike</td>
<td>Stable isotope approaches to reconstruct past and present microbial metabolic activity</td>
</tr>
<tr>
<td>Petra Levin</td>
<td>The dire consequences of a prolonged block in cell division</td>
</tr>
</tbody>
</table>
| Jim Umen         | *Algae, Biofuel, Cancer and sex*  
*ABCs of research in the Umen Laboratory* |