29th Annual PMCB Workshop

May 6 and 7, 2016
The Shores Resort & Spa
Daytona Beach Shores, FL
Schedule of Events

Friday, May 6, 2016

7:00 a.m.  Registration  
*Rooftop Foyer, roof level*

*Continental Breakfast*  
*River Room, roof level*

8:20  Opening Remarks and Announcements  
Matias Kirst, PMCB Director  
*River Room, roof level*

**Oral Presentations**  
*River Room, roof level*

*Moderator: Nathaniel Ellis*

8:30  *Topless Mediated Repression: a Bridge Unfinished*  
Joseph Collins*, Plant Molecular and Cellular Biology Program, University of Florida

8:45  *Identification of Nitrosylated Proteins in Stomatal Innate Immune Signaling*  
Sheldon Lawrence*, Plant Molecular and Cellular Biology Program, University of Florida

9:00  *Assessment of Chlorophyll Florescence as a Quantitative Method to Phenotype Sorghum Plants under Flooding Stress*  
Alejandra Abril*, Plant Molecular and Cellular Biology Program, University of Florida

9:15  *High Throughput Targeted Volatile Screening Towards Unraveling the Complexities of Blueberry Flavor*  
Timothy S. Johnson*, Plant Molecular and Cellular Biology Program, University of Florida

9:30  *ß-Aminobutyric Acid Stimulates Defense Priming Through NPR1 Induction*  
Matthew Dommel*, Plant Molecular and Cellular Biology Program, University of Florida

9:45  Break  
*Moderator: Collin Le Frois*

10:00  *An Empty Pericarp Phenotype Results from Mutation of a Nuclear-Encoded Group-II Intron Mataturase Implicated in Splicing of Mitochondrial Transcripts in Maize*  
Peng Liu*, Plant Molecular and Cellular Biology Program, University of Florida
10:15 Genomic Prediction and GWAS in two *Eucalyptus* Breeding Populations  
Bárbara S. F. Müller*, University of Brasília, Molecular Biology Program, Department of Cellular Biology, Brasilia, DF, Brazil

10:30 Evolution of the 3R-MYB Gene Family in Plants  
Guanqiao Feng*, Plant Molecular and Cellular Biology Program, University of Florida

10:45 Defining a Cellular Role for the Enlarged Vessel Elements 1 Protein Discovered in Poplar  
Johnathon R. Blahut*, Plant Molecular and Cellular Biology Program, University of Florida

Keynote Speaker  
*Introduction by Karen Koch and questions moderated by Michael Riley*

11:00 Innovations in Agriculture to Meet Global Food Security  
Phil Taylor, Science Strategy Manager, Monsanto R&D

12:00 Lunch (on your own)  
PMCB Student Lunch with Dr. Taylor (select students only)  
PMCB Student Lunch with Dr. Schmitz (select students only)  
Azure, hotel restaurant

Moderator: Jerald Noble

1:30 Jasmonate-Mediated Stomatal Closure under Elevated CO₂ Revealed by Time-Resolved Metabolomics  
Sisi Geng*, Plant Molecular and Cellular Biology Program, University of Florida

1:45 Insights into Sexually Dimorphic Biochemical Pathways Using a Metabolome-Based Genome-Wide Study in Juvenile Moss  
Leslie M. Kollar*, Department of Biology, University of Florida

2:00 Comparing Genotyping Methods for Development of Genomic Selection Prediction Models in *Eucalyptus*  
Rodrigo Furtado dos Santos*, Plant Molecular and Cellular Biology Program, University of Florida

2:15 Metabolic Implications of the Ndpk1 Gene Action in Maize  
Maria Angélica Sanclemente*, Plant Molecular and Cellular Biology Program, University of Florida

2:30 Break
Moderator: Lauren Stutts

2:45 Engineering Amyloplast 6-Phosphogluconate Dehydrogenase to Improve Heat Stability of the Oxidative Pentose Phosphate Pathway in Maize Seed Development
Camila Ribeiro*, Plant Molecular and Cellular Biology Program, University of Florida

3:00 Rapid Volatile Metabolomics and Genomics in Large Strawberry Populations Segregating for Aroma
Chris Barbey*, Plant Molecular and Cellular Biology Program, University of Florida

3:15 Genomic Consequences of Reciprocal Polyploidization in *Tragopogon*
Shengchen Shan*, Plant Molecular and Cellular Biology Program, University of Florida

Keynote Speaker
Introduction by Matias Kirst and questions moderated by Michael Riley

3:30 Encyclopedia of Eukaryotic DNA Methylation – From Patterns to Mechanisms and Functions
Bob Schmitz, Department of Genetics, University of Georgia

4:30 Adjourn

Dinner
Atlantic Room, roof level

6:30 Cash Bar

7:00 Dinner

Saturday, May 7, 2016

7:30 a.m. Continental Breakfast
Atlantic Room, roof level

Oral Presentations
River Room, roof level

Moderator: Scott Latimer

8:45 Proteomic Identification of Redox-Sensitive Proteins in Plants Upon Biotic Stress
Kelly Mayrink Balmant*, Plant Molecular and Cellular Biology Program, University of Florida
9:00  Spaceflight Data Identifies a Novel Transcription Factor (At1g05290) Involved in Regulating Genes Associated with ROS Production
Natasha J. Sng*, Plant Molecular and Cellular Biology Program, University of Florida

9:15  Early Flowering in Citrus Using a Modified CRISPR/Cas9 System
Shaun P. Jensen*, Plant Molecular and Cellular Biology Program, University of Florida

Moderator:  Austin Wenta

9:30  Transcriptional Dimorphism in Juvenile Tissue of the Moss Ceratodon Purpureus
Sarah B. Carey*, Department of Biology, University of Florida

9:45  Characterization of Genetic Diversity in a Natural Eastern Cottonwood (Populus deltoides) Population
Annette M. Fahrenkrog*, Plant Molecular and Cellular Biology Program, University of Florida

10:00  Citrus tristeza Virus Protein that Mediates Viral Superinfection Exclusion is an RNA-Binding Protein
Sung-Hwan Kang, Department of Plant Pathology, University of Florida

10:15  Break

Invited Speaker
Introduction by Matias Kirst and questions moderated by Michael Riley

10:30  A Systems Biology Approach to Elucidate the Hidden Reactions of Terpenoid Quinone Biosynthesis throughout the Tree of Life
Gilles J. Basset, Horticultural Sciences Department, University of Florida

Invited Speaker
Introduction by Svetlana Folimonova and questions moderated by Michael Riley

11:00  Calcium Signaling in Plant-Microbe Interactions: Plants Love It, Pathogens Hate It
Gul Shad Ali, Department of Plant Pathology (Mid-Florida Research & Education Center), University of Florida

11:30  Awards for Best Student Presentations
Award Committee

11:45  Adjourn

* denotes a graduate student