



**Plant Molecular
and Cellular Biology**
PROGRAM

30th Annual PMCB Workshop

May 5 and 6, 2017

The Shores Resort & Spa
Daytona Beach Shores, FL

Schedule of Events

Friday, May 5, 2017

7:20 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: Ann Bernert

8:30 **Previously Unrecognized Effects of *Ndpk1* in Responses to Sugar and Oxygen Availability**
Maria Angélica Sanclemente*, Plant Molecular and Cellular Biology Program, University of Florida

8:45 **Spaceflight Data Identifies a Novel Member of the CONSTANS-Like Family Involved in ROS Signaling**
Natasha Sng*, Plant Molecular and Cellular Biology Program, University of Florida

9:00 **Conservation of Alternative Splicing Events in a Population of *Populus deltoides***
Jerald Noble*, Plant Molecular and Cellular Biology Program, University of Florida

9:15 **Alternative Splicing Responses of *Arabidopsis jaz2* and *jaz7* Mutants in Response to Methyl Jasmonate Treatment**
Guanqiao Feng*, Plant Molecular and Cellular Biology Program, University of Florida

9:30 **Engineering Amyloplast 6-Phosphogluconate Dehydrogenase Activity to Improve Heat Stability of the Oxidative Pentose Phosphate Pathway**
Camila Ribeiro*, Plant Molecular and Cellular Biology Program, University of Florida

9:45 **Break**

Moderator: Drake Garner

10:00 **Identification of Nitrosylated Proteins in Stomatal Innate Immune Signaling**
Sheldon Lawrence*, Plant Molecular and Cellular Biology Program, University of Florida

- 10:15 **Evaluating Candidate Genes for Anthracnose Resistance in Sorghum with Virus-Induced Gene Silencing**
Lauren Stutts*, Plant Molecular and Cellular Biology Program, University of Florida
- 10:30 **Optimization of Genomic Selection Models for CFGRP Slash Pine Advanced Breeding Population**
Rodrigo Santos*, Plant Molecular and Cellular Biology Program, University of Florida
- 10:45 **Self-Interaction of a *Citrus tristeza* Virus-Encoded p33 Protein is Mediated by the N-Terminal Helix**
Thi Nguyet Minh Dao*, Plant Pathology Department, University of Florida

Keynote Speaker

Introduction by Curt Hannah

- 11:00 **DNA Replication Programs in *Arabidopsis* and Maize**
William Thompson, Distinguished Research Professor, Plant Gene Expression Laboratory, North Carolina State University

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

Moderator: Yongduo Sun

- 2:00 **Transcriptional Regulation of the Plant Immune Transcription Coactivator NPR1**
Matthew Dommel*, Plant Molecular and Cellular Biology Program, University of Florida

- 2:15 **Identifying Subunits of the Enlarged Vessel Elements Protein Complex**
Johnathon Blahut*, Plant Molecular and Cellular Biology Program, University of Florida

- 2:30 **Application of CRISPR in *Tragopogon* – A Model System for Studying the Evolutionary Effects of Polyploidy**
Shengchen Shan*, Plant Molecular and Cellular Biology Program, University of Florida

- 2:45 **Characterization of the Spaceflight Methylome: Unraveling the Epigenetic Response of *Arabidopsis thaliana* Grown Aboard the International Space Station (ISS)**
Collin LeFrois*, Plant Molecular and Cellular Biology Program, University of Florida

- 3:00 **Break**

Moderator: Francesco Cappai

3:15 **Discovery of Multiple Mechanisms Associated with Flooding Tolerance in *Sorghum bicolor***

Alejandra Abril*, Plant Molecular and Cellular Biology Program, University of Florida

3:30 **Metabolic Reconstructions Identify Plant 3-Methylglutaconyl-CoA Hydratase that is Crucial for Branched-Chain Amino Acid Catabolism in Mitochondria**

Scott Latimer*, Plant Molecular and Cellular Biology Program, University of Florida

3:45 **Association Analysis of Growth, Disease Resistance, and Microbiome Communities in *Populus deltoides***

Nathaniel Ellis*, Plant Molecular and Cellular Biology Program, University of Florida

Invited Speaker

Introduction by Matias Kirst

4:00 **The *Ins* and *Outs* of Intracellular Ion Homeostasis in Plant Growth and Stress Acclimation**

Elias Bassil, Tropical Research and Education Center, Department of Horticultural, University of Florida

4:30 **Adjourn**

Dinner

Atlantic Room, roof level

6:30 **Cash Bar**

7:00 **Dinner**

Saturday, May 6, 2017

7:45 a.m. **Continental Breakfast**

River Room, roof level

Oral Presentations

River Room, roof level

Moderator: Jianxin Zhao

8:45 **Lignin Nanotubes as a Gene Delivery System into Plant and Animal Cells**

Michael Riley II*, Plant Molecular and Cellular Biology Program, University of Florida

9:00 ***Phytophthora* Effectors Suppresses Plant Immunity by Interfering with the Ca²⁺-Signaling Pathway**

Zunaira Afzal*, Mid-Florida Research and Education Center, Department of Plant Pathology, University of Florida

- 9:15 **Unraveling the Complexities of Blueberry Flavor Using High Throughput Targeted Volatile Screening**
Timothy Johnson*, Plant Molecular and Cellular Biology Program, University of Florida
- 9:30 **Non-Canonical Interactions Contributing to Topless Mediated Repression**
Joseph Collins*, Plant Molecular and Cellular Biology Program, University of Florida
- 9:45 **Break**
- Moderator: Francesco Cappai*
- 10:00 **Quantitation of Core Phenylpropanoid Metabolites in *Petunia x hybrida* ‘Mitchell Diploid’ Floral Tissue Using LC-MS**
Austin Wentz*, Plant Molecular and Cellular Biology Program, University of Florida
- 10:15 **The Mitochondrial Respiratory Chain is Mediated by Multiple Nuclear Genes that Control Splicing**
Peng Liu*, Plant Molecular and Cellular Biology Program, University of Florida
- 10:30 **Advanced Genotyping for Flavor and Disease Resistance in Cultivated Strawberry**
Chris Barbey*, Plant Molecular and Cellular Biology Program, University of Florida

Invited Speaker

Introduction by Matias Kirst

- 10:45 **Overcoming Limitations to Tropical Fruit Breeding in Southern Florida**
Alan Chambers, Tropical Research and Education Center, Department of Horticultural Sciences, University of Florida

Invited Speaker

Introduction by Matias Kirst

- 11:15 **Integrated Advanced Genomic Approaches to Improve Disease Resistance in Florida Strawberries**
Seonghee Lee, Coast Research and Education Center, Department of Horticultural Sciences, University of Florida
- 11:45 **Awards for Best Student Presentations**
Awards Committee
- 12:00 p.m. **Adjourn**

* denotes a graduate student