

2011 Meeting of the Southern Section of the American Society of Plant Biologists



April 9-11
University of Southern Mississippi
Gulf Coast Research Lab
Ocean Springs, Mississippi

Saturday, April 9

4:30-6:30 pm Registration

5:00-8:00 pm Annual Mixer (**Dining Hall**)

5:00-8:00 pm Poster Set-Up (**Caylor Classroom 104**)

8:00 -9:00 pm Executive Committee Meeting

Sunday, April 10

7:00-8:00 am Continental Breakfast (**Dining Hall**)

8:00 am Welcome- Paxton Payton, Chair Southern Section – ASPB

8:15- 9:15 am **General Session (Auditorium)**

Phosphobinding Domain in Plants
David Chevalier, Mississippi State University

Role of the E3 ubiquitin ligase SAP5 in plant stress responses
Randy Allen, Oklahoma State University

Generation of Cotton with Enhanced Resistance to Pathogens - Plastid Transformation Strategies
Caryl Chlan, University of Louisiana at Lafayette

Identification of selenium (Se) - responsive genes in the selenium-hyperaccumulator *Astragalus racemosus*
Jiahua Xie, North Carolina Central University

9:15-9:45 am **Graduate Student Oral competition I (Auditorium)**

Arabidopsis thaliana calcium-dependent lipid-binding protein (AtCLB) negatively regulates abiotic stress response
Kanishka de Silva, University of Arkansas

Neutral lipids accumulate in leaves of *Arabidopsis* mutants
Christopher N. James, University of North Texas

9:45-10:00am **Refreshment Break I (Dining Hall)**

10:00-11:45 am

Graduate Student Oral competition II (Auditorium)

Direct visualization of lipid molecules in cotton embryos by matrix-assisted laser desorption ionization mass spectrometry
Patrick Horn, University of North Texas

Comparative proteomics of recalcitrant seed death in *Spartina alterniflora*
Yi Wang, Louisiana State University Agricultural Center

Development of Molecular Markers in Safflower
Zach B. Hinds, Texas Tech University and USDA Cropping Systems Research Laboratory

Identification of effector proteins of histone lysine methylation in plants
Udhghatri Kolli, Mississippi State University

Identification of genes associated with cotton fiber development in a chromosome substitution line CS-B25
Samuel Bandi, Mississippi State University

Proteomic analysis of phosphoproteins involved in abscisic acid signaling in *Arabidopsis*
Jiaxu Li, Mississippi State University

Proteomic analysis of phosphoproteins involved in abscisic acid signaling in *Arabidopsis*
Jie Song, Mississippi State University

11:50 am-1:00 pm

Lunch (Dining Hall)

1:30-3:00 pm

Graduate Student Oral competition III (Auditorium)

Expression and purification of recombinant tung tree diacylglycerol acyltransferase 2
O. D. Howard, Alcorn State University

Identification of Genotypes and Traits Associated with Hydrolysis Yield Variability in *Sorghum bicolor*
Joshua Vandenbrink, Clemson University

Enhancing Cotton Fiber Elongation and Cellulose Synthesis by Manipulating Fructokinase Activity.
Thiya Mukherjee, Texas Tech University

Photosynthetic response of invasive grass, *Phalaris arundinacea*, and native sedge *Carex stricta* that it replaces to climate change and nitrogen availability

Elizabeth Waring, Texas Tech University

The impacts of nitrogen utilization and allocation strategies on photosynthesis for an invasive grass, *Phalaris arundinacea*, in comparison to the native sedge, *Carex stricta*.

Hasitha Guvvala, Texas Tech University

Over-expression and antisense suppression of a gene encoding a heat shock factor binding protein in *Arabidopsis* affect the photosynthetic tolerance to heat stress

Yuanhua Wang, Texas Tech University

3:00-3:15 pm **Undergraduate Student Oral competition (Auditorium)**

Medicago truncatula NIP affects lignin and callose deposition and regulation of genes important for secondary metabolism and fungal defense

Clifford Sandlin, University of North Texas

3:30-4:00 pm

Refreshment Break in Dining Hall (Posters are Open in Caylor)

3:45-5:15

Poster Session: Caylor Classroom (rm 104)

(* = Undergraduate poster competition)

P1 Identifying Proteins that Interact with DCD1, a PP2A Phosphatase Regulatory Subunit Needed for Cell Division Plane Orientation in Maize
Awa L. N'diaye, University of North Texas

P2 Identification of N-acylethanolamine Resistant(NRA) Mutants in *Arabidopsis thaliana*
Bikash Adhikari, University of North Texas

P3 Engineering and expression of a lipid-inducible, self-regulating lipase in *Saccharomyces cerevisiae*. Implications for bioconversion of commodity vegetable oils to novel value-added products.
Jay Shockey, USDA-ARS, SRRRC. New Orleans, LA

P4 Understanding division plane orientation in plant cells
Amanda J. Wright, University of North Texas

P5 Is calcium a key player in interaction of FASS/TONNEAU2 and its other proteins in *Arabidopsis thaliana*?
Oladapo Oremade, University of North Texas

P6 Toward the identification and functional characterization of a second fatty acid amide hydrolase (FAAH) in *Arabidopsis*
Faure Lionel, University of North Texas

P7 Metabolism and Action of Polyunsaturated N-Acylethanolamines (NAEs)
Jantana Keereetaweeep, University of North Texas

P8 Immunohistochemical Investigation of Cotton Carpel Tissue Exposed to Xylanolytic Hydrolases of *Aspergillus flavus*
Jay E. Mellon, USDA, ARS, SRRC, New Orleans, LA

P9 Low co-cultivation temperature at 20°C improved *Agrobacterium tumefaciens*-mediated transformation of tobacco leaf disks
Norimoto Murai, Louisiana State University and LSU Agricultural Center

P10 Smaller higher-yielding binary Ti Vectors pLSU with co-directional replicons for *Agrobacterium tumefaciens*-mediated transformation of higher plants
Seokhyun Lee, Louisiana State University and LSU Agricultural Center

P11 Phenotypical and genetic characterization of tomato lines expressing *Arabidopsis* truncated ERECTA gene (Δ kinase)
Hector Villagarcia, University of Arkansas at Little Rock

P12 Vicilin Derived Plant Defense Proteins
Nibedita Saha, The University of Louisiana at Lafayette

P13 Effects of salinity and pathogen attack on the epidermal cell walls of seagrass *Thalassia testudinum*
Tim Sherman, The University of South Alabama

P14 Using canopy temperature to predict variation in cotton development
James R. Mahan, USDA/ARS Lubbock TX

P15* Stress Tolerance and Galactinol Synthase in *Verbascum phoeniceum*
Katie Sieck and Laura Vaughn, North Georgia College and State University

P16* A Comparison of Nitrogen Allocation Strategies for the Invasive Wetland Grass, *Phalaris arundinacea*, and the Native Sedge, *Carex stricta*
Milo Lewis, Texas Tech University

P17* Functional genomics of oxygenic photosynthesis in the model green microalga *Chlamydomonas reinhardtii*
Phillip Groenestein, University of West Georgia

6:30 pm

Banquet (Dining Hall) Presentation on GCRL by Dr. Patrick Biber

Monday, April 11

7:00-8:00 am Continental Breakfast (**Dining Hall**)

2011 Kriton-Hatzios Symposium (Auditorium)

8:00 am

Photosynthesis, Photoprotection, and the Environment.
Barbara Demmig-Adams Dept. Ecology and
Evolutionary Biology, University Colorado, Boulder

9:00 am

Root Growth under Water Deficits: Physiological Complexity and
Coordination.
Robert E. Sharp Dept. of Plant Sciences, University of Missouri.

10:00-10:20 am

Refreshment break (Dining Hall)

10:20 am

Systems Approaches for Improving Crop Abiotic Stress Tolerance.
Paxton Payton USDA ARS Cropping Systems Research Lab Lubbock
Texas

11:30-12:00 pm

General Business Meeting (Auditorium)

12:00 pm

Meeting Adjourns