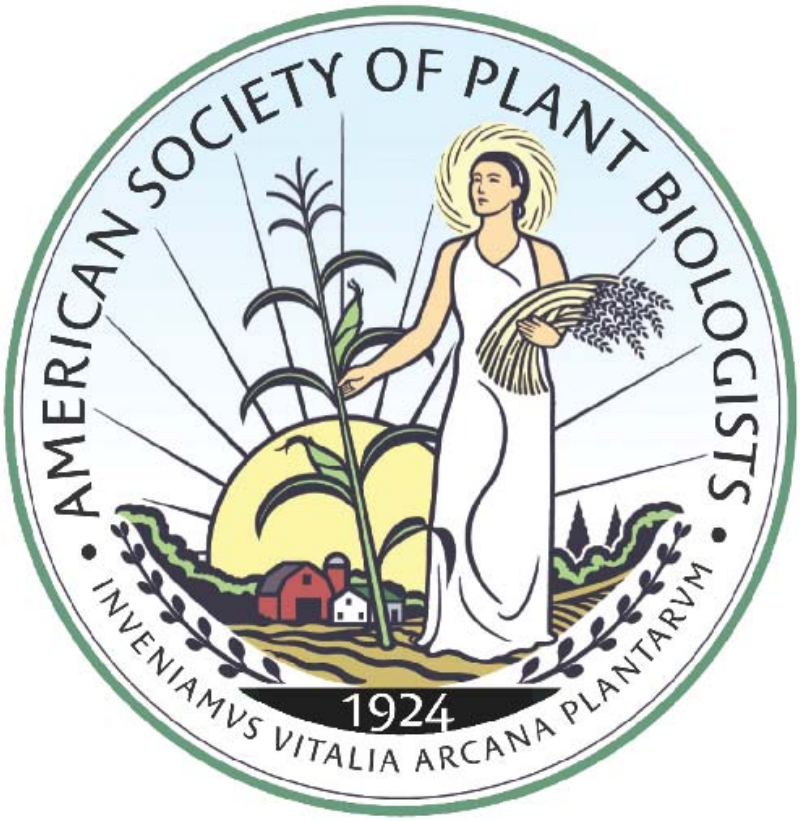
2010 Meeting of the Southern Section of the American Society of Plant Biologists



April 10-12
The University of Tennessee
Knoxville, Tennessee

Saturday, April 10

4:30 – 6:30 pm Registration

5:00 – 7:00 pm Annual Mixer

5:00 – 8:00 pm Poster set-up

7:00 – 9:00 pm Executive Committee Meeting

Sunday, April 11

7:30 – 8:15 am Continental Breakfast

8:15 am **Welcome – Stephen Banks, Chair Southern Section – ASPB**

8:30 – 9:45 am General Session

Myosin motor proteins require dimerization for efficient binding of their tails to organelles during cytoplasmic streaming
Andreas Nebenführ, University of Tennessee

Identification and Biochemical Analysis of Secondary Product Glucosyltransferases of *Citrus paradisi*
Daniel K. Owens, East Tennesee State University

Selenium tolerance in Arabidopsis requires the major isoform of adenosine 5'-phosphosulphate reductase (APR).
Doug Van Hoewyk, Coastal Carolina University

Translation factors and plant development
Albrecht G von Arnim, University of Tennessee

9:45 – 10:15 am **Refreshment Break** **Posters are open**

10:15 – 12:30 pm **Graduate Student Competition**

Session IA

10:15 – 10:30 am Functional analysis of NH_3 transport and investigation of transcriptional up-regulation under O_2 deficit conditions for soybean nodulin 26
Jin Ha Hwang, University of Tennessee

10:30 – 10:45 am Arsenite induced oxidative stress in *Arabidopsis thaliana*
Aparna Krishnamurthy, University of Florida

10:45 – 11:00 am Sugar and copper responsive miRNAs and their interplay in copper homeostasis in plants
Ligang Ren, University of Kentucky

11:00 – 11:15 am Mechanisms for Cold Tolerance in Flowers of *Helleborus niger*
Zong Liu, Tennessee State University

11:15 – 11:30 am Expanding the anaerobic response polypeptide gene family. Role of AtNIP2;1 and AtCML38 in plant anaerobic stress
Ansul Lokdarshi, University of Tennessee

11:30 – 11:45 am Analyses of natural variation in gene expression & association genetics studies of stress-related genes in Loblolly pine
Candace M. Seeve, Texas A&M University

11:45 – 12:00 noon Expression profile of the water-deficit response on cotton (*Gossypium hirsutum* L.)
Travis Adams, Texas Tech University

12:00 – 12:15 pm Genetic analysis of phyA' – a case of transcriptional silencing associated with exonic methylation
Gulab Rangani, University of Arkansas

Session IB

10:15 – 10:30 am Investigating the Roles of Class XI Myosins in Pollen Tube Tip Growth
Stephanie Madison, University of Tennessee

10:30 – 10:45 am Functional Studies of Apyrases 3 through 7 in *Arabidopsis thaliana*
Jian Yang, University of Texas at Austin

10:45 – 11:00 am A Novel Potential Gating Mechanism of Arabidopsis NIP7;1 Boric Acid transporter
Tian Li, University of Tennessee

11:00 - 11:15 am ARF7 and ARF19 regulate epinastic growth of rosette leaves via the activation of ARF2, ARF3 and ARF4 in Arabidopsis
Jun Qin, University of Kentucky

11:15 – 11:30 am Characterization of Site-Directed Mutants in Cytochrome c550 of Photosystem II
Akarsh Manne, East Carolina University

11:30 – 11:45 am Role of bHLH93 in controlling flowering time in *Arabidopsis thaliana*
Nidhi Sharma, University of Texas at Austin

11:45 – 12:00 noon Interactions of N-Acylethanolamine Metabolism and Abscisic Acid Action in *Arabidopsis thaliana* Seedlings
Matthew Cotter, University of North Texas

12:00 – 12:15 pm Sub-cellular localization of salicylic acid binding protein 2 (SABP2) in *Nicotiana tabacum*
Leonard Yenwong Fai, East Tennessee State University

12:15 – 2:00 pm **Lunch Break**: Dining Room, Room 404 **Posters are open**

2:00 – 3:30 pm **Graduate Student Competition**

Session IIA

2:00 – 2:15 pm Cuticle and plant defense
Ye Xia, University of Kentucky

2:15 – 2:30 pm Function of EKIP1:1 - an E3 ubiquitin ligase in Arabidopsis development
Rebecca Wilson, University of Tennessee

2:30 – 2:45 pm Molecular and Biochemical studies of SABP2 in defense signaling pathway induced by Acibenzolar-S-Methyl in plants
Diwaker Tripathi, East Tennessee State University

2:45 – 3:00 pm Role of photoreceptors in R protein-mediated resistance to Turnip Crinkle Virus
Rae-Dong Jeong, University of Kentucky

3:00 – 3:15 pm Oleate-regulated signaling and plant defense
Mihir K. Mandal, University of Kentucky

3:15 – 3:30 pm Identification and Characterization of Soybean Cyst Nematode-Induced Genes in Soybean
Jingyu Lin, University of Tennessee

Session IIB

2:00 – 2:15 pm Constructing A Cytogenetic Map Of Maize In Oat Addition Lines Using Sorghum Bacterial Artificial Chromosomes (BACs) As Fluorescent Probes
Debbie M. Figueroa, Florida State University

2:15 – 2:30 pm Identification of telomere length regulating factors in *Zea maize*
Amber N. Brown, Florida State University

2:30 – 2:45 pm Developing genomic resources for *Panicum virgatum* L. Switchgrass via Expressed Sequence Tag libraries
Xin Zeng, Oklahoma State University

2:45 – 3:00 pm Cytosolic glutamine synthetase binds the C-terminal domain of the nodulin 26 channel on the soybean symbiosome membrane
Pintu Masalkar, University of Tennessee

3:00 – 3:15 pm Linking carbohydrate content and gene expression for seasonal carbohydrate metabolism in the xylem of Populus species
Jayasri Alluvada, Texas Tech University

3:15 – 3:30 pm The effect of nitrogen availability on photosynthesis of the invasive grass *Phalaris arundinacea*
Hasitha Guvvala, Texas Tech University

3:30 – 4:00 pm **Refreshment Break** **Posters are open**

4:00 – 5:30 pm **Poster Session I, *Undergraduate Poster Competition**
Each student presenter should be at their poster from 4:00 to 5:15 PM for discussion and undergraduate competition judging.

P1* Phylogenetic Analysis of GRAS Family Genes
Carl M. Andersen, College of William and Mary

P3* Study of Dinoflagellate Phylogeny by Characterization of Protease Activity
Kevin Caceres, Rollins College

P5* Non-Glandular Trichome Cell Walls Are Compositionally Unique in Upland Cotton
Phillip G. Cochran, USDA-ARS

P7* A Study of Heat Shock Response Among Diverse Ecotypes of *Arabidopsis thaliana*
Rhonda R. Egidy, Oak Ridge National Laboratory

P9* Effective Small RNA Destruction by Short Tandem Target Mimics through the Small RNA Degrading Nucleases in *Arabidopsis thaliana*
Yiyou Gu, University of Kentucky

P11* Mutation of a Molecular Motor, Myosin XI-A, leads to reduced fertility in *Arabidopsis thaliana*
Tarah McClain, University of Tennessee

P13* Analysis of the methylation states of maize transgene-reactivated mutants
Shannon Mills, Florida State University

P15* Mapping of the B1 Genomic Transgene
Amy Sloan, Florida State University

P17* Finding Novel Genes Regulating Early Steps in Development
Alaina Willet, University of Tennessee

P19* Luminensence Imaging and its Application to Biosensor Research
Kyle Gabrick, University of Tennessee

5:30 pm – 6:45 pm **Poster Session II**

P2 Towards development of arsenic sensor ferns: Isolation of 5'UTRs from arsenic/metal transporter genes and current efforts on transformation of *Pteris vittata*.
Muthukumar Kumar Balasubramaniam, University of Tennessee

P4 In vivo analysis of synthetic promoters by agroinfiltration of tobacco leaves for pathogen phytosensing
Wusheng Liu, University of Tennessee

P6 FLP/FRT recombination from yeast in transgenic plants for enhancing sensitivity of reporter genes in a phytosensing system
Murali Rao, University of Tennessee

P8 Selenium tolerance in Arabidopsis requires the major isoform of adenosine 5'-phosphosulphate reductase (APR)
Doug Van Hoewyk, Coastal Carolina University

P10 Advances in high-resolution chemical characterization of plant neutral lipid compartments
Patrick Horn, University of North Texas

P12 Imaging Lipid Droplets in Arabidopsis Mutants
Christopher James, University of North Texas

P14 Polysome microarray analysis for translatomics
Byung-hoon Kim, University of Tennessee

P16 Adaptors of myosin motor proteins on organelle surfaces
Krzysztof Bobik, University of Tennessee

P18 Putative ASA3 Gene Product and Function in Arabidopsis
Jeff Brotherton, North Greenville University

P20 Regulation of plant growth in tomato by expression of ERECTA genes from Arabidopsis thaliana
Mariya Khodakovskaya, University of Arkansas at Little Rock

P21 Characterization of de novo transcriptome for a non-model plant, horseweed (*Conyza canadensis*), using GS-FLX 454 pyrosequencing
Yanhui Peng, University of Tennessee

P22 Over-expression of the transcription factor gene AtA20.5 in cotton improves the tolerance to rapidly-developing water deficit
Moh'd Hozain, Texas Tech University

P23 Expression of Arabidopsis fatty acid amide hydrolase(FAAH) in transgenic cotton (*Gossypium hirsutum* L., cv. Coker 312)
Bikash Adhikari, University of North Texas

P24 Domain requirements for the ETR1 ethylene receptor
Brad Binder, University of Tennessee

P25 Lauroylethanolamide (NAE 12:0) is a potent competitive inhibitor of lipoxygenase activity
Jantana Keereetaweep, University of North Texas

P26 Antimicrobial activity of Yerba Mate (*Ilex paraguariensis*) against plant pathogens
Kellie Burris, University of Tennessee

P28 De novo motif discovery from soybean cyst nematode-induced genes in soybean
Wusheng Liu, University of Tennessee

P29 Suppressors of a rhizobial lipopolysaccharide defect restore symbiosis on alfalfa
Hajeewaka Mendis, Florida State University

P30 Accessory Proteins Expressed by *Aspergillus flavus* in a Xylanolytic Environment
Jay E. Mellon, USDA-ARS

P31 Evolutionary Lineages and Functional Diversification of Plant Hexokinases.
Rucha Karve, University of Tennessee

P32 Ballistic seed dispersal in bittercress
Kevin C. Vaughn, USDA-ARS

P33 Role of bHLH93 in controlling flowering time in *Arabidopsis thaliana*
Nidhi Sharma, University of Texas at Austin

P34 Regulation of translation by Arabidopsis eIF3
Bayu Sisay Tiruneh, University of Tennessee

P35 Green light reverses blue light-induced chloroplast movement
Judy G. Schmalstig, Rollins College

P36 Regulation of Carotenoid Metabolism in Orange-Fleshed Sweet Potato (*Ipomoea batatas* L. Lam)
Maria Quirico, University of Arkansas

P37 Interactions of nitrogen and carbon metabolism in native and non-native submerged aquatic vegetation
Molly Mintz, University of South Alabama

P38 Sequencing and characterization of microRNAs of a monocot halophyte Spartina alterniflora toward understanding regulation of its salinity adaptation
Niranjan Baisakh, Louisiana State University Agricultural Center

P39 Identifying Novel MicroRNAs in Arabidopsis thaliana Roots
Natalie Breakfield, Duke University

P40 Over-expression of the transcription factor gene AtA20.5 in cotton improves the tolerance to rapidly-developing water deficit
Yuanhua Wang, Texas Tech University

7:00 pm **Banquet - Calhoun's Restaurant**
400 Neyland Drive, Knoxville, TN - (865) 673-3355

Monday, April 12

7:30 – 8:15 am Continental Breakfast

2010 Kriton-Hatzios Symposium

8:30 am	Explore the small RNA world: using plant model systems *Zhixin Xie*, Dept. of Biology, Texas Tech University
9:30 am	Gene Regulation by Small RNAs and the Technological Application in Plants *Guiliang Tang*, Dept. of Plant and Soil Sciences & KTRDC, University of Kentucky
10:30 – 10:50 am	**Refreshment Break** **Posters are open**
11:00 am	Genomical and functional analysis of the small RNA and mRNA transcriptome and degradome of Miscanthus x giganteus *Magdy Alabady*, Institute of Genome Biology and Energy Bioscience Institute, University of Illinois
12:00 – 12:30 pm	General Business Meeting
12:30 pm	Meeting adjourns