

Midwest ASPB Meeting 2008

Iowa State University Ames, Iowa

Saturday, March 29th

- 8:00 Registration, poster setup, and breakfast. Howe Hall atrium
- 8:30 Welcome and introduction, 2055 Hoover Hall
Gustavo MacIntosh (MWASPB Meeting organizer)
- 8:40 Welcome by Dr. Stephen Howell,
Director of the Plant Sciences Institute, Iowa State University
- 8:50 ASPB talk,
Colleen Doherty (Michigan State University)
- 9:00-10:00 **Session I Talks** (12 minutes plus 3 minutes questions)
Moderator: Debbie Swarthout, Hope College
- 9:00 Brian Freeman and Gwyn Beattie
Fine-scale kinetic changes in *Arabidopsis thaliana* physiology during the hypersensitive response implicate rapid localized drying as a mechanism of pathogen growth restriction
Department of Plant Pathology, Iowa State University
- 9:15 Melissa Hillwig and Gustavo MacIntosh
Transcriptional and posttranscriptional control of *RNS1* by wounding and ABA
Department of Biochemistry, Biophysics and Mol. Biol., Iowa State University
- 9:30 Brandi Sigmon and Erik Vollbrecht
Exploring the role of *ramosa1* in the evolution of grass inflorescences
Department of Genetics, Development, and Cell Biol., Iowa State University
- 9:45 Neela Kumar and John Kiss
Characterization of ARG1 in *Arabidopsis* gravity perceiving cells using immunocytochemistry
Department of Botany, Miami University
- 10:00-10:30 Coffee Break and poster set up (Howe Hall atrium)

10:30-11:45 **Session II Talks** (12 minutes plus 3 minutes questions)

Moderator: Richard Moore, Miami University

- 10:30 Yang Xu and Steven Rodermel
A plastid Polyribonucleotide Phosphorylase (PNPase) suppresses variegation in the Arabidopsis var2 mutant
Department of Genetics, Development, and Cell Biol., Iowa State University
- 10:45 Alex Meyer and Gustavo MacIntosh
Functional and biochemical characterization of the Arabidopsis ribonuclease RNS2
Department of Biochemistry, Biophysics and Mol. Biol., Iowa State University
- 11:00 Sang-Jin Kim and Diane Bassham
A putative Arabidopsis vacuolar trafficking component
Department of Genetics, Development, and Cell Biol., Iowa State University
- 11:15 Yimo Liu and Diane Bassham
Analysis of autophagy-related proteins in Arabidopsis
Department of Genetics, Development, and Cell Biol., Iowa State University
- 11:30 Parijat Juvale and Martin Spalding
Deciphering proteolytic processing of periplasmic Carbonic Anhydrase 1 (pCA1)
Department of Genetics, Development, and Cell Biol., Iowa State University
- 11:45 Rachel Mertz, Bryan Penning, Anna Olek and Nick Carpita
Characterization of Arabidopsis mur5 and mur6
Department of Botany & Plant Pathology, Purdue University
- 12:00 Lunch (Howe Hall atrium)
- 1:00 PM ASPB membership meeting (location to be determined)
- 2:00-5:30 **Biofuels mini-symposium** (2055 Hoover Hall)
Moderator: Susanne Hoffmann-Benning
- 2:00 **Introduction.** Susanne Hoffmann-Benning, Michigan State University
- 2:15 Basil Nikolau
The impending imperative for the plant sciences to transform the bioeconomy; or is the bioeconomy transforming the plant sciences?
Department of Biochemistry, Biophysics and Mol. Biol., Iowa State University
- 2:55 Tom Clemente
Modulating the fatty acid profile of soybean oil for biofuel
Department of Agronomy & Horticulture, University of Nebraska-Lincoln
- 3:35 Coffee Break (Howe Hall atrium)

- 4:05 Nancy Carpenter
High Lipid Content Microalgae: Extracting the Potential
 Division of Science & Mathematics / Chemistry, University of Minnesota, Morris
- 4:45 Markus Pauly
Plant cell walls as a resource for the production of biofuels
 MSU-DOE Plant Research Laboratory, Michigan State University
- 5:30 Dinner (Howe Hall atrium)
- 6:30-8:30 **Poster session** and desserts
 6:30-7:30 even-numbered posters
 7:30-8:30 odd-numbered posters

Sunday, March 30th

- 8:00 Breakfast, Howe Hall atrium
- 8:30-10:00 **Session III Talks** (12 minutes plus 3 minutes questions)
 Moderator: Nick Carpita, Purdue University
- 8:30 Mery Dafny-Yelin, Raz Dafny, Avner Levy and Tzvi Tzfira
Blocking T-strand conversion to double-stranded intermediates: new insights into the *Agrobacterium*-mediated genetic-transformation process
 Department of Molecular, Cellular, & Dev. Biol., University of Michigan
- 8:45 Avner Levy, Andriy Tovkach, Raz Dafny, Vardit Zeevi and Tzvi Tzfira
Toward Zinc-Finger-Nuclease-Mediated Resistance to DNA Viruses
 Department of Molecular, Cellular, & Dev. Biol., University of Michigan
- 9:00 Eric Johnson, Mark Berhow and Patrick Dowd
Colored and white sectors of petunia flowers display differential resistance to insect herbivores
 Crop Bioprotection Research Unit, Agricultural Research Service, USDA
- 9:15 Olga Zabolina
Oligosaccharin is the signal molecule involved in freeze tolerance acquisition in winter plants
 Department of Biochemistry, Biophysics and Mol. Biol., Iowa State University
- 9:30 Debbie Swarthout, Natalie Grand, Emily Harper and Dan Jones
The use of ¹⁵N labeling and photosynthetic CO₂ response curves to measure photorespiration under drought conditions in Tall fescue grasses
 Biology Department, Hope College
- 9:45 Zhihong Song, Sangwon Cha, Libuse Brachova, Edward Yeung, Basil Nikolau
Metabolomics Analysis and Mass Spectral Imaging of Arabidopsis Cuticular Wax
 Department of Biochemistry, Biophysics and Mol. Biol., Iowa State University

- 10:00 Coffee Break (Howe Hall atrium)
- 10:30-11:45 **Session III Talks** (12 minutes plus 3 minutes questions)
Moderator:
- 10:30 Prem Kumar, Bethany Butler, Melanie Correll, Richard Edelman and John Kiss
Phototropism of *Arabidopsis thaliana* in Microgravity
Department of Botany, Miami University
- 10:45 Suqin Cai and Coralie Lashbrook
Stamen Abscission Zone Transcriptome Profiling Reveals New Candidates for Abscission Control. Enhanced Retention of Floral Organs in Transgenic Plants Overexpressing Arabidopsis Zinc Finger Protein 2
Horticulture Department, Iowa State University
- 11:00 Changbin Chen, Ernest Retzel, Alan Smith and James J. Huntley
The meiotic transcriptome in *Arabidopsis*
Department of Horticultural Science, University of Minnesota
- 11:15 Chun Liang, Y. Liu, L. Liu, A. C. Davis, Y. Shen and Q. Quinn Li
ESTs with cDNA termini – previously overlooked resources for gene annotation and transcriptome exploration in *Chlamydomonas reinhardtii*
Department of Botany, Miami University
- 11:30 Q. Quinn Li, Yingjia Shen, Yuansheng Liu, Lin Liu, Chun Liang
Unique features of nuclear mRNA poly(A) signals and alternative polyadenylation in the *Chlamydomonas reinhardtii* genome
Department of Botany, Miami University
- 11:45 **Announcement of student awards and closing remarks**
Susanne Hoffmann-Benning, MWASPB Chair
- 12:15 Lunch (Howe Hall atrium)

We thank our sponsors:

Department of Biochemistry, Biophysics and Molecular Biology, Iowa State University

Department of Genetics, Development and Cell Biology, Iowa State University

Department of Plant Pathology, Iowa State University

Department of Agronomy, Iowa State University

Plant Sciences Institute, Iowa State University

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