Greetings, Southern Section friends! In 2018, we had a very successful annual meeting at the Le Pavillon Hotel in New Orleans, Louisiana, from March 24-26. Special thanks go to SS-ASPB Secretary/Treasurer Dr. Aruna Kilaru and the local organizer Dr. Jay Shockey for organizing such a fantastic meeting. This year’s theme of the Kriton Hatzios Symposium was “Big Data: Next Frontier in Plant Science”, which was organized by Dr. Shahid Muktar. Dr. Philip Benfey (Duke University), Dr. Bob Schmitz (University of Georgia), Dr. Libo Shan (Texas A&M University) and Dr. Jason Willams (Cold Spring Harbor) presented their current research at the symposium. This year’s meeting was well attended and we experienced many excellent presentations from both undergraduate and graduate students as well as postdocs. During the next few months we will have an election to select new SS-ASPB officers. We expect your participation in this election. Our 2019 annual meeting will be held at Clemson University, South Carolina. Hope to see you all in 2019.
The 2018 annual SS-ASPB meeting was held March 24-26 in New Orleans at the historic Le Pavillon Hotel, which was an excellent choice for the meeting. With all the concurrent session rooms close by, it was very easy to move from one session to another. Over 160 participants from 18 different states representing 46 institutes attended the event.

The meeting began with Saturday evening registration, which was handled by SS-ASPB Secretary/Treasurer Dr. Aruna Kilaru, Shoshana Kronfeld, and Kelly Gillespie. Many thanks for their help. Everyone enjoyed the Saturday evening mixer at the Crystal room which allowed socializing with old and new friends while having light snacks.

After Sunday morning breakfast, Dr. Nihal Dharmasiri opened the meeting and Dr. Shahid Mukhtar gave a short introduction to the symposium speakers. Shortly after, the general session and then concurrent sessions were started. After listening to faculty and postdoctoral speakers, the graduate student oral presentation competition began. At the conclusion of the concurrent sessions, judges as well as other participants viewed the poster presentations. Special thanks go to all the volunteers who served as judges (Drs. Arjit Mukherjee, Hong-Gu Kang, Julia Frugoli, Ken Korth, John Jelesko, Gary Sunter, Ashlee McCaskill, Suhas Shinde, Praveen Kumar Kathare, Sunethra Dharmasiri, Xiaolan Rao, Niranjan Baisakh, Susan John, Benjamin Babst, and Zachary Nimchuk) for the graduate student oral and undergraduate student poster competitions.

We also greatly appreciate the help of session moderators and would like to thank them for their service (Drs. Jay Shockey, Ana Alonso, Jose Barbosa, Andrew Palmer, Karolina Mukhtar, Phil Bates, Magaly Ricon-Zachary, Mustafa Morsy, Nathan Hancock, Gerard Arceo-Gomez, and Shahid Mukhtar).
The annual Sunday evening banquet was held at the elegant Crystal Room of the hotel. Everybody enjoyed the delicious meal and drinks. Winners of graduate oral presentation and undergraduate poster presentation competitions were also announced during the banquet.

On Monday again we met after breakfast for the Kriton Hatzios Symposium, which was chaired by Dr. Shahid Mukhtar. Symposium details are found on page 7.
SS-ASPB 2018 Award Winners
Graduate Student Oral Presentation Competition
Three Way Tie!

Timothy Cioffi
Texas State University
IBR5 affects steady-state levels of SCFTIR1/AFBs components to regulate auxin response

Timothy C. Howton
University of Alabama at Birmingham
The exploitation of the glyoxylate cycle in Arabidopsis thaliana by Pseudomonas syringae for glucose procurement

Jesse Daniels
East Tennessee State University
Direct and Indirect Effects of Invasive Cirsium arvense on Pollination in Southern Appalachian Floral Communities
SS-ASPB 2018 Award Winners

Aubrey Naylor Undergraduate Student Poster Competition

First Place
Akhila Muthukumar
University of North Texas
Evaluation of Cottonseed Protein and Oil Reserves in Wild Accessions Cotton (Gossypium sp.) Grown Under Rain-fed or Irrigated Conditions

Second Place
Reese King
University of South Carolina-Aiken
Investigating the mPing Transposition Complex Through Overexpression of ORF1 and Transposase

Third Place
Amanda Askins
University of South Carolina-Aiken
Analysis of F2 Activation Tagging Wheat Lines
SS-ASPB 2018 Award Winners

Best Graduate Student Oral Presentation in Concurrent Sessions

Concurrent Session A

Drew Sturtevant

University of North Texas

Metabolite Imaging and Transcriptome Analyses of Jojoba (*Simmondsia chinensis*) Seed Tissues Suggest Unexpected Differential Localization of Pathways for Storage Lipid Accumulation

Concurrent Session B

Kieu-Nga Tran

Louisiana State University

Arabidopsis Wild-Relatives Adapted to Salt Reveals Modified Salt Stress Response Pathways Determined by Their Genomic Structural Variation

Concurrent Session C

Pramod Pantha

Louisiana State University

The Genome and Transcriptome of the Extremophyte *Schrenkiella parvula* Reveal Unique Adaptations to Survive High K+ in Its Native Soils
The 2018 Kriton Hatzios Symposium “Big Data: the Next Frontier in Plant Science” was held on the morning of March 26th. Every year, this symposium draws the leading scientists in research regarding a specific, timely topic in plant biology. The symposium is held each year in memory of Dr. Kriton Hatzios (pictured above right), who was the Head of the Virginia Agricultural Experiment Station, and Associate Dean for Research at Virginia Tech College of Agriculture and Life Sciences, and who died in 2003.

The featured speakers were Dr. Philip Benfey (HHMI and Duke University), Dr. Bob Schmitz (University of Georgia at Athens), Dr. Libo Shan (Texas A&M University), and Dr. Jason Williams (Cold Spring Harbor Laboratory). Summaries of their presentations are on page 8.

From left to right: Dr. Philip Benfey, Dr. Bob Schmitz, Dr. Libo Shan, Dr. Jason Williams, and Dr. Shahid Mukhtar.
Dr. Philip Benfey “Underground signaling networks”

Dr. Benfey’s laboratory investigates dynamic relationships between plant roots and the environment. They have developed new experimental, analytical and imaging methods to identify networks functioning within different cell types and developmental stages of the root. Dr. Benfey is particularly interested in a subnetwork that regulates a key asymmetric cell division of a stem cell and the regulatory networks that control differentiation of the stem cell’s progeny. To quantify dynamic aspects of these networks, they are employing light-sheet microscopy to image accumulation of their different components. His laboratory has also uncovered a clock-like process responsible for the positioning of lateral roots along the root primary axis. Two sets of genes were identified that oscillate in opposite phases at the root tip and are involved in the production of prebranch sites, locations of future lateral roots. A derivative of the carotenoid biosynthesis pathway appears to act as a new mobile signal regulating root architecture.

Dr. Bob Schmitz “Mapping and exploiting functional variation in crop genomes”

The laboratory of Dr. Schmitz focuses on the transcriptional, post-transcriptional and epigenetic changes during crop development. They are interested in systematic identification of plant cis-regulatory DNA elements, since a comprehensive and well-curated data set of plant cis-regulatory DNA elements is instrumental to understanding transcriptional regulation during development and/or in response to external stimuli. In addition, cis-regulatory DNA elements are also hotspots for genetic variations underlying key agronomical traits. They have discovered a plant-specific chromatin signature that is indicative of cis-regulatory DNA elements. Their goal is to use this newly identified signature in combination with high-throughput validation assays to systematically identify, analyze and functionally validate cis-regulatory elements in important crop species.

Dr. Libo Shan “Microbial sensing and signaling from the plant cell membrane”

Dr. Shan is an eminent plant immunologist. Her laboratory is mainly interested in the RLK/RLP (innate immune receptors)-mediated signaling mechanisms in plant immunity, and the regulation of the shared regulators for a trade-off between growth and immunity. Using genetic and biochemical approaches, they are studying the intertwined protein phosphorylation and ubiquitination regulations on immune and development responses. The recent progresses on the regulation of plant immune sensory complex and signaling relay to global immune gene activation was discussed during her talk.

Dr. Jason Williams “Data, Data Everywhere Nor any a Drop to Drink”

Since the sequencing of the Arabidopsis genome in 2000, plant science like all of the biological sciences has been transformed by the availability of genomics data. Nearly 20 years later, and at the 10th anniversary of low-cost, high-throughput sequencing, the aspirational goal post many are still in search of – deriving insight from genomics – has moved into remoter and more unfamiliar territories such as machine vision and deep learning. Big data is easy, big knowledge, not so much. Dr. Williams talk was focused on outlining problems, opportunities, and challenges that plant biologists face, from the perspective of current students whose future academic aims, questions, and methods will look less-and-less like those they were trained in.
SS-ASPB 2018 Sponsors

We greatly appreciate the help of the following sponsors.
ASPB Council Meeting Summary
by Dr. Ashlee McCaskill, SS-ASPB Representative

This year’s council meeting was a non-traditional format. The goal of the meeting was to brainstorm ideas for maintaining the health of our society and to contribute to the strategic plan that ASPB will be developing in the coming months. The determined roles of the society were used to guide the discussions. They were identified as nurture members, bring plant science to the world, set quality standards for the discipline, increase awareness and importance of plant sciences, and influence policy. For additional context, major disruptors were identified and The Membership Project was reviewed. Also guiding the discussion were the results of the member survey that was conducted this year.

In society news, two new sections have been given probationary status. The first is a Primarily Undergraduate Institution (PUI) section, which is aimed at providing support for plant scientists at these institutions. However, the section is open to anyone that has an interest in this educational field. Additional information and membership links for this section can be found on Plantae. The second is a Mexican section, which is aimed at providing support for the numerous plant scientists that reside in Mexico.

SS-ASPB 2019
Clemson, SC
March 16-18, 2019

Planning is already underway for another fun and exciting SS-ASPB meeting at Clemson University, South Carolina. Incoming Secretary/Treasurer, Dr. Magaly Ricon-Zachary and Dr. Julia Frugoli (local organizer) will be organizing the 2019 SS-ASPB meeting. We are hoping to see you all again in South Carolina. The theme of the 2019 Kriton Hatzios Symposium will be Foundational to Translational: The Impact of Plant Science Research.
We’re on the web!  
http://ss-aspb.org/

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