

## 2024 Joint MAS-ASPB & UMD Plant Symposium Schedule

May 29 & 30, 2024

Venue: Room 1224, Edward St. John Learning and Teaching Center (Bldg #226)  
University of Maryland, College Park

<b>Day 1: Wednesday (May 29)</b>	
8:00 – 9:00 am	Registration
<b>8:30 – 9:00 am</b>	<b>Light breakfast provided; Set up presentations for Session I</b>
9:00 – 9:05 am	Welcome Remarks
9:05 – 9:10 am	Keynote Speaker Introduction
<b>9:10 – 10:00 am</b>	<b>Keynote address – Dr. Maria Harrison</b> (Boyce Thompson Institute, NY) Title: Reprogramming root cells for symbiosis with AM fungi
<b>10:00 – 10:15 am</b>	<b>Coffee Break</b>
<b>10:15 – 11:50 pm</b>	<b>Session I: Plant Genetics and Genomics</b> <b>(session chairs Drs. Mark Zander and Nicholas Santantonio)</b>
10:15 – 10:40 am	<b>Dr. Richard Boyle</b> (Clemson University, SC) Title: Recent genetic discoveries and advances to develop safer and more resilient cereal grains
10:40 – 11:05 am	<b>Dr. Daniel Rodriguez Leal</b> (University of Maryland, College Park) Title: Engineering Quantitative Traits by genome editing in tomatoes
11:05 – 11:30 am	<b>Dr. Qi Mu</b> (University of Delaware) Title: Developmental dimension and genetic effects of crop phenotypic plasticity
11:30 – 11:40 am	Graduate student <b>Alexis Perry</b> (Virginia Tech) Title: Developing low-GN and GN-zero winter malt barley varieties for the eastern united states
11:40 – 11:50 am	Graduate student <b>Ya-Chi Nien</b> (Penn State University) Title: DICER-Like 1 generates trans-species microRNAs in the parasitic plant <i>Cuscuta campestris</i>
<b>11:50 – 12:35 pm</b>	<b>Lunch provided for all registered attendees</b>
<b>12:35 – 1.45 pm</b>	<b>Poster Session (Odd numbers present)</b> <b>Set up presentations for Session II</b>
<b>1:45 – 3:20 pm</b>	<b>Session II: Plant Biotechnology (session chair Dr. Yiping Qi)</b>
1:45 – 2:10 pm	<b>Dr. Bing Yang</b> (Donald Danforth Plant Science Center) Title: Prime editing enables recapitulation of natural genetic variations in rice

2:10 – 2:35 pm	<b>Dr. Jesus Beltran</b> (University of Delaware) Title: Reprogramming plant hormone perception modules enables new ligand-controlled functionalities
2:35 – 3:00 pm	<b>Dr. Daniel Barletta Sulis</b> (North Carolina State University, Raleigh) Title: Multiplex CRISPR editing of wood for sustainable fiber production
3:00 – 3:10 pm	<b>Dr. Zhengyu (Allen) Wen</b> (KeyGene, USA) Title: Translation initiation factors edited for resistance against maize lethal necrosis
3:10 – 3:20 pm	Graduate student <b>Nayara Sabrina Freitas-Alves</b> (University of Maryland, College Park) Title: Genotype-independent regeneration of gene-edited carrots through CRISPR-Combo
<b>3:20 – 3:35 pm</b>	<b>Coffee Break; Set up presentations for Session III</b>
<b>3:35 – 5:10 pm</b>	<b>Session III: Plant Biotic Interactions (session chair Dr. Nidhi Rawat)</b>
3:35 – 4:00 pm	<b>Dr. Rong Di</b> (Rutgers University, NJ) Title: CRISPR-gene editing of sweet basil to improve downy mildew resistance
4:00 – 4:25 pm	<b>Dr. Murli Manohar</b> (Ascribe Bioscience Inc) Title: Microbial metabolites to empower plants' natural defenses for crop protection
4:25 – 4:50 pm	<b>Dr. Bret Cooper</b> (Beltsville Agricultural Research Center, MD) Title: Common bean and its bacterial pathogen respond to each other through a biochemical feedback loop of isoflavonoids and cyclic dipeptides
4:50 – 5:00 pm	Postdoc <b>Dr. Zizhang Li</b> (University of Maryland, College) Title: Chromatin-remodeling factor PICKLE (PKL) is required for host and nonhost resistance against powdery mildew in Arabidopsis
5:00 – 5:10 pm	Postdoc <b>Dr. Prem Kymar Ganesan</b> (University of Maryland, College Park) Title: Broad spectrum resistance of wheat pore-forming toxin-like protein against fungal pathogens
<b>5:10 – 5:15 pm</b>	<b>Short Break</b>
<b>5:15 – 6:15 pm</b>	<b>Career Development Workshop (conveners: Drs. Hua Lu and Daniel Rodriguez Leal)</b> Panelists: Drs. Murli Manohar (CTO & Co-Founder Ascribe Biosciences,) Liwei Yuan (Sr. Scientist, Bayer), and Zhengyu (Allen) Wen (KeyGene, USA)
<b>6:30 – 9:00 pm</b>	<b>Reception/Dinner at The Hall CP for all registered attendees:</b> 4656 Hotel Dr., College Park, MD 20742

<b>Day 2: Thursday (May 30)</b>	
8:15 – 9:00 am	Registration
<b>8:30 – 9:00 am</b>	<b>Light breakfast provided; Set up presentations for Session IV</b>
<b>9:00 – 9:08 am</b>	Remarks by <b>Dr. Crispin Taylor</b> , ASPB Executive Director
9:08 – 9:10 am	Keynote Speaker Introduction
<b>9:10 – 10:00 am</b>	<b>Keynote Address – Dr. Hong Ma</b> (Penn State University, State College) Title: Part I. ASPB - promoting interactions, collaborations, and mentoring young plant biologists; Part II. Identifying and understanding novel regulators of plant development using a combination of molecular genetic, multi-omic and evolutionary approaches.
<b>10:00 – 10:15 am</b>	<b>Coffee Break</b>
<b>10:15 – 12:05 pm</b>	<b>Session IV: Plant Development and Cell Biology (session chairs Drs. Hua Lu and José Feijó)</b>
10:15 – 10:40 am	<b>Dr. Mark Zander</b> (Rutgers University, NJ) Title: Dissecting the environmentally responsive plant epigenome
10:40 – 11:05 am	<b>Dr. Ross Sozzani</b> (North Carolina State University, Raleigh, NC) Title: The Goldilocks principle: Just the right amount of growth
11:05 – 11:30 am	<b>Dr. Shan He</b> (Princeton University, NJ) Title: Biogenesis and regulation of the CO <sub>2</sub> -concentrating organelle, the pyrenoid
11:30 – 11:45 am	<b>Dr. Arif Ashraf</b> (Howard University, Washington, DC) Title: Nuclear membrane proteins and their functions beyond the nuclear membrane
11:45 – 11:55 am	Graduate student <b>Jakob Adkins</b> (Marshall University, WV) Telomere Length Regulation by the H3.3 Deposition Pathway in Arabidopsis
11:55 – 12:05 pm	Postdoc <b>Dr. Xiaoyu Wang</b> (University of Maryland, College Park) Title: Broad range plastid genome editing with monomeric TALE-linked cytosine and dual base editors
<b>12:05 – 12:45 pm</b>	<b>Lunch provided for all registered attendees</b>
<b>12:45 – 1:45 pm</b>	<b>Grant Development Workshop (Conveners: Dr. Shunyuan Xiao and Dr. Vijay Tiwari)</b> Panelists: Drs. Kan Wang and Pankaj Jaiswal (NSF), Christian Tobias (USDA-NIFA), and V.K. Sharma (DOE)
<b>1:45 – 3:00 pm</b>	<b>Poster Session (Even numbers present)</b> <b>Set up presentations for Sessions V and VI</b>

<b>3:00 – 4:25 pm</b>	<b>Session V: Omics-based Approaches in Plant Biology (session chairs Drs. Gary Coleman and Edward Eisenstein)</b>
3:00 – 3:25 pm	<b>Dr. Sean McSweeney</b> (Brookhaven National Laboratory, NY) Title: Imaging at multiple scales: allowing the light source to illuminate plant biology
3:25 – 3:50 pm	<b>Dr. Grey Monroe</b> (University of California, Davis) Title: Mechanisms and origins of epigenome-recruited DNA mismatch repair in plants
3:50 – 4:15 pm	<b>Dr. Holly P. Bartholomew</b> (Beltsville Agricultural Research Center, MD) Title: Fighting fungus with fungus: utilizing non-pathogenic <i>Penicillium</i> spp. in apple fruit for fundamental and translative applications
4:15 – 4:25 pm	Graduate student <b>Husan Turdiev</b> (University of Maryland, College Park) Evidence of homeostatic regulation of 1-aminocyclopropane-1-carboxylic acid (ACC), the precursor of the plant hormone ethylene
<b>4:25 – 4:35 pm</b>	<b>Session VI: Undergraduate Session</b>
4:25 – 4:30 pm	Undergraduate <b>Dalia Chen</b> (University of Maryland, College Park) Title: High temperatures reduce growth, infection, and transmission of a naturally occurring fungal plant pathogen
4:30 – 4:35 pm	Undergraduate <b>Victoria Swiler</b> (Athens University, Ohio) Title: The role of the AHA2 protein in <i>Arabidopsis</i> gravitropism
<b>4:35 – 4:45 pm</b>	<b>Short Break</b>
<b>4:45 – 4:55 pm</b>	<b>Poster and Oral Presentation Awards</b>
<b>4:55 – 5:00 pm</b>	<b>Closing Remarks (followed by poster take-down and departure)</b>

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