SCHEDULE OF EVENTS

Talks will be held in the Grand Ballroom
Posters will be displayed in Midway West

Wednesday, March 5, 2025

8:30 AM – 6:00 PM	**OPTIONAL PRE-CONFERENCE WORKSHOPS**	
8:30 AM - 11:30 AM	**Maize Crop Germplasm Committee**	Missouri History Museum
1:00 PM – 6:00 PM	**Corn Breeding Research (Day 1)**	Midway 1 & 2

Thursday, March 6, 2025

9:00 AM – 6:00 PM	**OPTIONAL PRE-CONFERENCE WORKSHOPS**	
8:00 AM – 5:00 PM	**Corn Breeding Research (Day 2)**	Midway 3 & 4
9:00 AM - 4:00 PM	**Development & Cell Biology Workshop**	Midway 1 & 2
9:30 AM - 3:00 PM	**Bayer Tour**	Bus pick-up
12:00 PM - 2:00 PM	**39N Lunch and Danforth Center Tour**	1001 N. Warson Road St. Louis, MO 63132
2:00 PM - 5:00 PM	**Computational Resources Workshop**	Conductor Room
3:00 PM – 9:30 PM	**REGISTRATION**	Depot Registration Office
3:00 PM – 6:00 PM	**POSTER HANGING**	Midway West
5:00 PM – 5:45 PM	**Travel awardees / mentors meet & greet**	Jeffersonian / Knickerbocker
6:00 PM – 7:00 PM	**DINNER**	Midway West & Pegram

Thursday, March 6, 2025 (continued)

7:00 PM – 9:00 PM	**SESSION 1 – WELCOME / KEYNOTE/ GENE REGULATION** Chair: Sherry Flint-Garcia	
7:00 PM	**WELCOME AND ANNOUNCEMENTS**	Grand Ballroom
7:20 PM	**Jonathan Wendel, Iowa State University** *Genes, jeans, genomes, and the wonders of polyploidy in plants*	[KS1]
8:00 PM - 8:20 PM	**POSTER LIGHTNING TALKS**	
	Yue Liu, Iowa State University *Candidate Genes Underlying a Major QTL qshgd1 Causing Spontaneous Haploid Genome Doubling in Maize A427*	[L1]
	Vladimir Torres-Rodriguez, University of Nebraska-Lincoln *Multi-species transcriptome-wide association studies identify additional genes controlling flowering*	[L2]
	Andrea Sama, University of California, San Diego *Chemical Imaging Reveals Metabolic Responses to Salt-Stress in Maize Roots*	[L3]
	Xiaosa Xu, University of California, Davis *A high-resolution, meristem stage-specific single-cell gene expression atlas resolving developmental dynamics in maize inflorescence architecture*	[L4]
	Sebastian Mueller, Oregon State University *Predictive Modeling of Pollen Fitness Phenotypes from Genome Scale Data Identifies Expression Specificity As a Critically Informative Parameter*	[L5]
	Huan Chen, Michigan State University *Archaeological Bolivian maize genomes suggest Inca cultural expansion augmented maize diversity in South America*	[L6]
	Lukas Würstl, Technical University Munich *Natural alleles of the gene lhcb6 shape photosynthesis and key agronomic traits in maize (Zea mays L.) landraces*	[L7]
	Hannah Pil, North Carolina State University *BZea: A diverse teosinte introgression population for improving modern maize sustainability*	[L8]

Thursday, March 6, 2025 (continued)

8:20 PM	**Maike Stam, University of Amsterdam** *Vgt1 as enhancer of ZmRap2.7 impacts flowering time and gene regulatory networks involved in jasmonate signaling in maize*	[T1]
8:40 PM	**Ankush Sangra, University of Georgia** *Decoding a complex distal non-coding QTL at TEOSINTE BRANCHED 1*	[T2]
9:00 PM – 12:00 AM	**INFORMAL POSTER VIEWING & HOSPITALITY**	Midway West
9:00 PM – 10:30 PM	**INFORMAL CORN HOLE PLAY**	Prefunction Space Grand Ballroom

Friday, March 7, 2025

7:00 AM – 8:00 AM	**BREAKFAST**	Midway West
7:30 AM – 12:30 PM	**REGISTRATION**	Depot Registration Office
8:15 AM – 10:15 AM	**SESSION 2 – MODELING CORN** Chair: Hank Bass	
8:15 AM	**ANNOUNCEMENTS**	Grand Ballroom
8:30 AM	**Jingjing Zhai, Cornell University** *Cross-species modeling of plant genomes at single nucleotide resolution using a pre-trained DNA language model*	[T3]
8:50 AM	**Diana Ruggiero, Oregon State University** *Quantitative genetics of leaf vascular density in maize*	[T4]
9:10 AM	**Erin Farmer, Cornell University** *Integrating proximal sensing modalities for enhanced prediction of agronomically important crop traits*	[T5]
9:30 AM	**Lucas Batista & Jacob Washburn, Kansas State University & USDA-ARS** *Crowdsourcing phenotype prediction: Results from the 2024 G2F prediction competition.*	[T6]
9:50 AM - 10:15 AM	**POSTER LIGHTNING TALKS**	
	Jacob Kelly, University of Missouri *Speed Breeding Fast-Flowering Mini-Maize*	[L9]
	Thanduanlung Kamei, University of Delaware *SBP mutants have an expanded competence zone for brace root initiation*	[L10]
	Katy Guthrie, University of Minnesota *Teaching Scientific Writing Alongside the Scientific Method in an Introductory Plant Biology Lab*	[L11]
	Joseph DeTemple, Iowa State University *Gene expression and circadian rhythm differences between temperate and tropical maize inbreds in response to photoperiod*	[L12]

Friday, March 7, 2025 (continued)

	Manisha Munasinghe, University of Minnesota *Structural Variation has a Limited Role in Influencing Genome-Wide Differential Gene Expression Patterns in Maize*	[L13]
	Mohamed El-Walid, Cornell University *Genomic Assembly and Analysis of Fast-Flowering Mini-Maize*	[L14]
	Christopher Benson, Ohio State University *Resolving Maize Domestication and Subpopulation Divergence Using Long Terminal Repeat Retrotransposons*	[L15]
	Xuelian Du, University of Bonn *BonnMu – A resource for functional genomics in maize (Zea mays L.)*	[L16]
10:15 AM - 10:45 AM	**BREAK**	Prefunction Space Grand Ballroom
10:45 AM – 12:15 PM	**SESSION 3 – EDUCATION, COMMUNITY, AND OUTREACH** Chair: Brandi Sigmon	
10:45 AM	**ACKNOWLEDGE TRAVEL AWARDEES**	Grand Ballroom
10:55 AM - 11:10 AM	**POSTER LIGHTNING TALKS**	
	Jason Lynn, Cold Spring Harbor Laboratory *AGO2 and AGO3 regulate RNAi fidelity by suppressing RNA-directed DNA methylation*	[L17]
	Dafang Wang, Hofstra University *Mechanisms of Small RNA-Induced Epigenetic Silencing of Ac Transposons in Maize*	[L18]
	Vinay Chaudhari, Donald Danforth Plant Science Center *Predicting end-of-season Sorghum biomass from seedling-stage traits*	[L19]
	Olivia Haley, USDA-ARS, ORISE *Comparing the performance of protein folding models AlphaFold, ESMFold, and Boltz for classical genes in maize*	[L20]
	Zong-Yan Liu, Cornell University *ReelGene2: A Large Language Model for Single Base Pair Precision Gene Annotation in Diverse Plant Genomes*	[L21]

Friday, March 7, 2025 (continued)

11:10 AM	**Vivian Bernau, USDA Plant Introduction** *Ensuring the future of maize: A call for collaborative action*	[T7]
11:30 AM	**Helen Anne Curry, Georgia Tech** *Input, Insurance, Objective: Reflections on diversity from the history of crop science*	[KS2]

12:15 PM - 1:15 PM	**LUNCH** Special table at lunch w/ Helen Anne Curry	Midway & Pegram
	Travel Awardee/Mentor Networking Lunch	Midway 1 & 2
	MGC BoD and MGAC Lunch	Midway 3 & 4
1:30 PM - 4:30 PM	**POSTER SESSION 1**	Midway West
1:30 PM - 3:00 PM	*Presenters should be at odd-numbered posters*	
3:00 PM - 4:30 PM	*Presenters should be at even-numbered posters*	

Beverages will be available from 2:30 to 4:00 PM in Midway West

4:40 PM – 6:00 PM	**SESSION 4 – MAIZE UNDER STRESS** Chair: Melissa Draves	
4:40 PM	**Veronica Perez, Cornell University** *Translational and proteomic analysis of cold-stressed maize reveals ribosomal protein families involved in cold response and tolerance*	[T8]
5:00 PM	**Fausto Rodríguez-Zapata, North Carolina State University** *Introgression of a Mexican highland chromosomal inversion into temperate maize accelerates flowering, promotes growth, and modulates a cell proliferation gene network.*	[T9]
5:20 PM	**Marie-Laure Martin, INRAE** *Integration of phenomic, proteomic, and genomic data into a multi-scale network unravels missing heritability for maize response to water deficit*	[T10]
5:40 PM	**Maggie Woodhouse, USDA-ARS** *Transcriptional regulation of stress adaptation in maize: identification and functional annotation*	[T11]

Friday, March 7, 2025 (continued)

6:00 PM - 7:00 PM	**DINNER**	Midway & Pegram
	Bayer Student/Postdoc Dinner	Midway 1 & 2
7:00 PM –9:00 PM	**SESSION 5 – AWARDS** Chair: Andrea Eveland	
7:00 PM	**Andrea Eveland** *Introduction to Awards*	Grand Ballroom
7:10 PM	**Natalia de Leon** *Presenting: Cooperator and Leadership Awards*	
7:30 PM	**Andrea Eveland** *Presenting: M. Rhoades Early-Career, L. Stadler Mid-Career*	
7:50 PM	**Andrea Eveland and Wojtek Pawlowski** *Presenting: R. Emerson Lifetime Awards*	
8:10 PM	**Marna Yandeau-Nelson** *McClintock Prize Presentation Introduction*	
8:20 PM	**Edward Buckler IV, USDA Agricultural Research Service** *Why do we do maize genetics?*	[M1]
9:00 PM - 12:00 AM	**INFORMAL POSTER VIEWING & HOSPITALITY**	Midway West
9:30 PM - 10:00 PM	**OPERA BELL BAND**	Pegram
9:00 PM - 10:30 PM	**EARLY BRACKETS OF THE CORN HOLE TOURNAMENT**	Prefunction Space Grand Ballroom

Saturday, March 8, 2025

7:00 AM – 8:00 AM	**BREAKFAST**	Midway West & Pegram
8:00 AM – 12:00 PM	**REGISTRATION**	Depot Registration Office
8:15 AM – 10:00 AM	**SESSION 6 – ROOTS & NUTRIENT UPTAKE / KEYNOTE** Chair: Rubén Rellán Álvarez	
8:15 AM	**ANNOUNCEMENTS**	Grand Ballroom
8:20 AM	**Alexander Liu, Washington University in Saint Louis, Donald Danforth Plant Science Center** *A Rootless1 knockdown allele affects maize nodal root development, increasing rooting depth, nitrogen uptake efficiency, and grain production in the field*	[T12]
8:40 AM	**Sylvia Morais de Sousa Tinoco, Embrapa** *Overexpression of PSTOL1-like genes increases maize root surface area and biomass under low and high phosphorus conditions*	[T13]
9:00 AM	**Ivan Baxter, Donald Danforth Plant Science Center** *You need a real maize geneticist*	[KS3]
9:40 AM – 10:00 AM	**POSTER LIGHTNING TALKS**	
	Forrest Li, University of California, Davis *Sequencing a seed bank: Assessing the utility of environmental data from CIMMYT traditional varieties for climate-adaptive maize breeding*	[L23]
	Aimee Schulz, University of Minnesota *The molecular evolution of perenniality across the grasses*	[L24]
	Matthew Wendt, Iowa State University *Environmental and Genetic Factors Underlying Maize Cuticular Wax Accumulation Under Drought Stress*	[L25]
	Wen-Yu Liu, North Carolina State University *ZmCER9-Mediated Regulation of Autoactive NLR Proteins and Effector-Triggered Immunity via ERAD Pathway*	[L26]

Saturday, March 8, 2025 (continued)

	Huda Ansaf, University of Missouri-Columbia *Understanding the Role of TOR Signaling and Translational Machinery in Regulating Protein-bound Amino Acid Homeostasis in Maize Kernels*	[L27]
	Gwonjin Lee, West Virginia State University *Sex-specific patterns of meiotic recombination are determined by maize lines from different climate zones.*	[L28]
	Michelle Stitzer, Cornell University *Comparative grass genomics reveals explosive genome evolution in maize and its wild relatives*	[L29]
	Mohammad Mahmood Hasan, University of Florida *mop1 reshapes recombination landscapes by altering DNA methylation and chromatin states at MITEs*	[L30]
10:00 AM – 10:30 AM	**BREAK**	Prefunction Space Grand Ballroom

10:30 AM – 12:30 PM	**SESSION 7 – KEYNOTE / CELL DIVISION & MERISTEMS** Chair: Sarah Jensen	
10:30 AM	**Sióbhan Brady, Howard Hughes Medical Institute, University of California Davis** *Environmental integration with root cell type development*	[KS4]
11:10 AM	**Stephanie Martinez, University of California, Riverside** *Delayed divisions and cell elongation defects influence plant growth in katanin mutants*	[T14]
11:30 AM	**Fang Xu, Shandong University** *The EPF-ERECTA ligand-receptor pairs regulate maize shoot and inflorescence architecture in coordination with CLAVATA pathway in maize.*	[T15]
11:50 AM	**Thu Tran, Cold Spring Harbor Laboratory** *Catalytic and non-catalytic TREHALOSE-6-PHOSPHATE SYNTHASES (TPSs) interact with RAMOSA3 to control maize development*	[T16]

Saturday, March 8, 2025 (continued)

12:10 PM	**Alejandro Aragon Raygoza, Iowa State University** *Exploring the effects of ethylene-related transcription factors during maize shoot development*	[T17]
12:30 PM - 1:30 PM	**LUNCH**	Midway & Pegram
	Travel awardee lunch with keynote speakers	Midway 1 & 2
	Maize genetics mentoring & networking lunch	Midway 3
	MGMSC lunch	Midway 4
1:30 PM - 4:30 PM	**POSTER SESSION 2**	Midway West
1:30 PM - 3:00 PM	*Presenters should be at even-numbered posters*	
3:00 PM - 4:30 PM	*Presenters should be at odd-numbered posters*	

Beverages will be available from 2:30 to 4:00 PM in Midway West

4:30 PM - 6:00 PM	**COMMUNITY SESSION** **Maize Genetics Cooperative** *Wojtek Pawlowski, MGC BoD Chair*	Grand Ballroom
6:00 PM - 7:00 PM	**DINNER**	Midway West & Pegram
	Corteva Student/Postdoc Dinner	Midway 1 & 2

7:00 PM – 8:20 PM	**SESSION 8 – REPRODUCTION / KEYNOTE** Chair: Cinta Romay	
7:00 PM	**ANNOUNCEMENTS**	Grand Ballroom
7:05 PM	**Xixi Zheng, University of Regensburg** *Understanding the Molecular Mechanism of Parthenogenesis in Cereals*	[T18]
7:25 PM	**Rachel Egger, Syngenta** *Heat treatment and UBA2 fusions enhance LbCas12a genome editing activity during haploid induction*	[T19]
7:45 PM	**Elli Cryan, University of California Davis** *Molecular evolution of the Ga reproductive barriers in maize and related species*	[T20]

Saturday, March 8, 2025 (continued)

8:05 PM	**Doreen Ware, USDA Agricultural Research Service** *Plant genomes: Understanding their past and managing their future*	[KS5]
9:00 PM - 12:00 AM	**INFORMAL POSTER VIEWING & HOSPITALITY**	Midway West
10:00 PM - 12:00 AM	**GAME NIGHT / CORN HOLE TOURNAMENT FINALS**	Midway West

Sunday, March 9, 2025

7:00 AM - 8:20 AM	**BREAKFAST**	Midway & Pegram
8:25 AM – 10:20 AM	**SESSION 9 – EPIGENETICS** Chair: Katie Murphy	
8:25 AM	**ANNOUNCEMENTS**	
8:30 AM	**Qi Li, University of Tuebingen, Germany** *Long-distance retrotransposons direct variable gene imprinting in maize*	[T21]
8:50 AM	**Xi Cheng, University of Florida** *Deciphering epigenetic and genetic alterations in a DNA methylation mutant through successive generations of self-fertilization in maize*	[T22]
9:10 AM	**Hafiza Sara Akram, Florida State University** *Replication timing uncovers a novel two-compartment arrangement of maize interphase euchromatin*	[T23]
9:30 AM	**Akwasi Yeboah, University of Florida** *Determination of Genetic and Epigenetic Regulations of Meiotic Recombination during Domestication in Maize*	[T24]
9:50 AM - 10:20 AM	**BREAK**	

Sunday, March 9, 2025 (continued)

10:20 AM – 12:00 PM	**SESSION 10 – BUILDING A STRONGER MAIZE PLANT** Chair: Frank Hochholdinger	
10:20 AM	**Bharath Kunduru, Clemson University** *Deciphering genetic architecture of stalk lodging resistance using high-density phenotype map in maize*	[T25]
10:40 AM	**Laura Tibbs-Cortes, USDA-ARS** *Plasticity and fitness trade-offs in switchgrass revealed by open science and citizen science data*	[T26]
11:00 AM	**Qin Yang, Northwest A&F University** *Inactivation of a lysine-histidine transporter-1 gene confers southern leaf blight resistance in maize*	[T27]
11:20 AM	**Marion Pitz, University of Bonn** *Regulation of heterosis-associated gene expression complementation in maize hybrids*	[T28]
11:40 AM	**CLOSING REMARKS**	
12:00 PM	**ADJOURNMENT**	

1:00 PM – 3:00 PM	**OPTIONAL POST-CONFERENCE WORKSHOP**	
1:00 PM - 3:00 PM	**Missouri Botanical Garden**	Missouri Botanical Garden 4344 Shaw Blvd St. Louis, MO 63110