

2021 63rd Annual Maize Genetics Meeting Schedule

All times listed are in CST.

Wednesday March 3rd Pre-conference events

3:00 PM - 4:00 PM **Maize Genetics Meeting MaGNET Networking Event**

Monday March 8th 9:00 AM - 8:00 PM CST

9:00 AM - 9:30 AM Welcome and announcements

9:30 AM - 10:50 AM **Session I: Genome Biology**
Chair: Erin Sparks

9:30 AM - 9:50 AM **(T1) Antoine Allier, Université Paris-Saclay**
Genetic diversity management and introduction in maize breeding programs using genomic selection

9:50 AM - 10:10 AM **(T2) Alex Bousios, University of Sussex**
Gene capture by transposable elements leads to epigenetic conflict in maize

10:10 AM - 10:30 AM **(T3) Jing Li, Iowa State University**
Annotating and characterizing the orphan genes of Zea mays B73 and NAM lines

10:30 AM - 10:50 AM **(T4) Kelly Dawe, University of Georgia**
De novo assembly, annotation, and comparative analysis of 26 diverse maize genomes

10:50 AM - 11:00 AM Break

11:00 AM - 12:00 PM **Session II: Plenary Speaker**
Chair: Marna Yandea-Nelson

11:00 AM - 12:00 PM **Frank Hochholdinger, University of Bonn**
Genetic dissection of maize root development

12:00 PM – 12:30 PM Student conversation with Dr. Hochholdinger (attendance is limited, sign up in meeting platform required)

12:00 PM – 5:00 PM Socializing, networking, and open poster viewing

Monday March 8th (continued)

5:00 PM - 8:00 PM **Session III: Maize & the Environment I**
Chair: Madelaine Bartlett

5:00 PM - 5:20 PM **(T5) Laura Tibbs Cortes, Iowa State University**
Identifying Environmental and Genetic Factors Underlying Phenotype in the Maize NAM Population

5:20 PM - 5:40 PM **(T6) Johannes Scharwies, Stanford University**
Diversity of moisture regulated root branching uncovered in maize

5:40 PM - 6:00 PM **(T7) Marcin Grzybowski, University of Nebraska-Lincoln**
Genetic architecture of nonphotochemical quenching (NPQ) kinetics in maize

6:00 PM - 6:40 PM **Fostering Diversity in the Maize Research Community**
(T8) Beronda Montgomery, Michigan State University
Planting Equity – Lessons from plants on cultivating equitable ecosystems

6:40 PM - 7:00 PM **(T9) Rubén Rellán-Álvarez, North Carolina State University**
Teosinte introgression modulates phosphatidylcholine levels and induces early maize flowering time

7:00 PM – 8:00 PM **Poster session**

8:00 PM Socializing, networking, and open poster viewing

Tuesday March 9th 9:00 AM-8:00 PM CST

9:00 AM - 9:10 AM Welcome and announcements

9:10 AM - 10:50 AM Session IV: Regulating Genes and Genomes
Chair: Maud Tenailon

9:10 AM – 9:30 AM **(T10) Thomas Hartwig, Heinrich Heine University**
FIND-CIS: High-resolution mapping of functional cis-elements in the maize drought response

9:30 AM - 9:50 AM **(T11) Maria-Angelica Sanclemente, University of Florida-Gainesville**
Sugar Modulation of Anaerobic-Response Networks in Maize Root Tips

9:50 AM – 10:10 AM **(T12) Zhaobin Dong, University of California-Berkeley**
The tasselsheath4 gene establishes developmental fields within floral phytomers via microRNA mediated mutual repression

10:10 AM - 10:30 AM **(T13) Maud Fagny, Université Paris-Saclay**
Identifying key tissue-specific, biological processes by integrating enhancer information in maize gene regulatory networks

10:30 AM - 10:50 AM **(T14) Zongliang Chen, Waksman Institute**
Structural variation at the maize wuschel1 locus alters stem cell organization in inflorescences

10:50 AM - 11:00 AM Break

11:00 AM - 12:00 PM **Poster session**

12:00 PM - 1:00 PM Opportunity to remember Drs. Don Auger and Nick Lauter with family in Gather.Town networking space (link available in meeting platform)

12:00 PM – 5:00 PM Socializing, networking, and open poster viewing

Tuesday March 9th (continued)

5:00 PM - 7:00 PM **Session V: Emerging Tools & Applied Research I**
Chair: Todd Jones

5:00 PM - 5:20 PM **(T15) Yan Zhou, Iowa State University**
Identification of genetic determinants of trait measurement errors in image-based, high-throughput phenotyping

5:20 PM - 5:40 PM **(T16) Sagnik Banerjee, Iowa State University**
Constructing Zea mays genes from RNA-Seq expression data using FINDER - a fully automated gene annotator

5:40 PM - 6:00 PM **(T17) Daniel Runcie, University of California-Davis**
A statistical model for genomic predictions of high-dimensional traits

6:00 PM - 6:20 PM **(T18) Anju Giri, Cornell University**
Haplotype Associated RNA Expression (HARE) improves prediction of complex traits in maize

6:20 PM - 6:40 PM **(T19) Apurba Anirban, University of Queensland**
Investigating anthocyanin and sugar development in purple pericarp sweetcorn

6:40 PM - 7:00 PM Break

7:00 PM - 8:00 PM **Session VI: Plenary Speaker**
Chair: Erin Sparks

7:00 PM - 8:00 PM **Bin Han, Chinese Academy of Sciences**
A quantitative genomics study on rice heterosis

8:00 PM – 8:30 PM Student conversation with Dr. Han (attendance is limited, sign up in meeting platform required)

8:00 PM Socializing, networking, and open poster viewing

Wednesday March 10th 9:00 AM-8:00 PM CST

9:00 AM - 10:00 AM **Session VII: McClintock Prize Presentation**
Chair: Jeff Ross-Ibarra

9:00 AM – 9:10 AM **Jeff Ross-Ibarra, UC Davis**
McClintock Prize introduction

9:10 AM – 10:00 AM **John Doebley, University of Wisconsin-Madison**
Barbara McClintock and the Genetic Foundation for Understanding Maize Domestication

10:00 AM – 10:15 AM Break

10:15 AM - 12:15 PM **Session VIII: Emerging Tools & Applied Research II**
Chair: Marna Yandeu-Nelson

10:15 AM - 10:35 AM **(T20) Thomas Widiez, University of Lyon (INRAE)**
*Haploid induction requires targeting of NOT-LIKE-DAD to pollen endo-
plasma membrane by lipid anchoring and electrostatic interactions*

10:35 AM - 10:55 AM **(T21) Simon Rio, Université Paris-Saclay**
*Can admixed individuals help to study the differences in allele effects
between maize heterotic groups?*

10:55 AM - 11:15 AM **(T22) Nathaniel Korth, University of Nebraska-Lincoln**
*Do the major changes in seed proteins in quality protein popcorn
influence growth of beneficial, health-promoting bacteria in the human
gut?*

11:15 AM - 12:15 PM **Poster session**

12:15 PM - 1:15 PM Career Networking Session

12:15 PM – 5:00 PM Socializing, networking, and open poster viewing

Wednesday March 10th (continued)

5:00 PM - 7:00 PM **Session IX: Cellular Processes**
Chair: Clint Whipple

5:00 PM - 5:20 PM **(T23) CJ Rachel Wang, Academia Sinica, Taipei Taiwan**
Super-resolution expansion microscopy (ExM) reveals the nature of critical recombination intermediates during meiosis

5:20 PM - 5:40 PM **(T24) Xinxin Ding, University of Wisconsin-Madison**
Microautophagy of storage proteins in maize aleurone cells

5:40 PM - 6:00 PM **(T25) Tyler McCubbin, University of Missouri-Columbia**
The COBRA-like gene BK2L3 affects cellulose deposition and sucrose export from source leaves

6:00 PM - 6:20 PM **(T26) Joseph Gallagher, University of Massachusetts-Amherst**
Duplicate transcription factor genes GT1 and VRS1 repeatedly evolve roles in growth repression

6:20 PM - 6:50 PM Award Presentations

6:50 PM - 7:00 PM Break

7:00 PM - 8:00 PM **Session X: Plenary Speaker**
Chair: Madelaine Bartlett

7:00 PM - 8:00 PM **Sarah Hake, UC Berkeley**
Organogenesis in maize - lessons from mutants

8:00 PM – 8:30 PM Student conversation with Dr. Hake (attendance is limited, sign up in meeting platform required)

8:00 PM Socializing, networking, and open poster viewing

Thursday March 11th 9:00 AM-7:00 PM CST

9:00 AM - 10:00 AM **Session XI: Plenary Speaker**
Chair: Matt Hufford

9:00 AM – 10:00 AM **Giles Oldroyd, University of Cambridge**
Transforming agricultural sustainability through beneficial microbial associations

10:00 AM -10:30 AM Student conversation with Dr. Oldroyd (attendance is limited, sign up in meeting platform required)

10:00 AM – 10:30 AM Break

10:30 AM - 12:00 PM **Maize Community Meeting** (all attendees encouraged to attend)

12:00 PM – 5:00 PM Socializing, networking, and open poster viewing

5:00 PM – 7:00 PM **Session XII: McClintock Prize Presentation**
Chair: David Braun

5:00 PM - 5:10 PM **David Braun, University of Missouri**
McClintock Prize introduction

5:10 PM - 6:00 PM **Jim Birchler, University of Missouri**
The Gene Balance Hypothesis: How gene stoichiometries affect expression, the phenotype and evolutionary processes

6:00 PM - 7:00 PM **Poster session**

7:00 PM Socializing, networking, and open poster viewing

Friday March 12th 9:00 AM-1:00 PM CST

9:00 AM – 9:10 AM Welcome and announcements

9:10 AM - 10:30 AM **Session XIII: Maize & the Environment II**
Chair: Hilde Nelissen

9:10 AM – 9:30 AM **(T27) Peng Yu, University of Bonn**
Genetic Control and Environmental Regulation of Root-Microbiome Interaction in Maize

9:30 AM – 9:50 AM **(T28) Mihai Miclaus, National Institute for Biological Sciences, Cluj-Napoca, Romania**
Cytolines as models to study the impact of different cytoplasm on gene expression under heat stress conditions

9:50 AM – 10:10 AM **(T29) Giulia Castorina, University of Milan, Italy**
The drought-responsive ZmFDL1/MYB94 transcription factor regulates cuticle biosynthesis

10:10 AM – 10:30 AM **(T30) Elly Poretsky, University of California-San Diego**
Uncovering the Genetic Basis of Maize Sensitivity to Herbivore-Associated Molecular Patterns

10:30 AM – 10:50 AM Break

10:50 AM - 12:00 PM **Session XIV: Genome Biology II**
Chair: Mei Guo

10:50 AM - 11:10 AM **(T31) Heather Manching, University of Delaware**
Using a parallel selection experiment to test modalities of haplotype-by-latitude effects underlying phenotypic variation in flowering time.

11:10 AM - 11:30 AM **(T32) Juliette Aubert, University of Montpellier, France**
Paramutation: a global silencing mechanism in maize?

11:30 AM - 11:50 AM **(T33) Guillaume Ramstein, Arhus University, Denmark**
Prediction of evolutionary constraint by genomic annotations improves prioritization of causal variants in maize

11:50 AM - 12:00 PM Closing remarks

12:00 PM - 1:00 PM Socializing, networking, and open poster viewing

1:00 PM **Meeting Adjourns**