SCHEDULE OF EVENTS

Talks will be held in the Ballroom A
Posters will be displayed in the Ballroom B&C

**Wednesday, February 28, 2024**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Room</th>
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</thead>
<tbody>
<tr>
<td>8:00 AM – 10:00 PM</td>
<td>OPTIONAL PRE-CONFERENCE WORKSHOPS</td>
<td></td>
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<tr>
<td>8:00 AM - 12:00 PM</td>
<td>Maize Crop Germplasm Committee</td>
<td>Room 302C</td>
</tr>
<tr>
<td>1:00 PM – 6:00 PM</td>
<td>Corn Breeding Research</td>
<td>Room 302A/B</td>
</tr>
<tr>
<td>7:00 PM – 10:00 PM</td>
<td>Genetics of Maize-Microbe Interactions</td>
<td>Room 301A</td>
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**Thursday, February 29, 2024**

<table>
<thead>
<tr>
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<tr>
<td>8:00 AM – 6:00 PM</td>
<td>OPTIONAL PRE-CONFERENCE WORKSHOPS</td>
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<tr>
<td>8:00 AM – 5:00 PM</td>
<td>Corn Breeding Research</td>
<td>Rooms 302A/B</td>
</tr>
<tr>
<td>8:30 AM - 5:30 PM</td>
<td>Genetics of Maize-Microbe Interactions Workshop</td>
<td>Room 301A</td>
</tr>
<tr>
<td>9:00 AM - 4:00 PM</td>
<td>Maize Development and Cell Biology Workshop</td>
<td>Room 301B</td>
</tr>
<tr>
<td>3:00 PM - 4:00 PM</td>
<td>Gramene Workshop</td>
<td>Room 304</td>
</tr>
<tr>
<td>4:00 PM - 5:30 PM</td>
<td>MaizeGDB: Pan-genome and AI resources</td>
<td>Room 304</td>
</tr>
<tr>
<td>3:00 PM – 9:30 PM</td>
<td>REGISTRATION (Registration Lobby)</td>
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<tr>
<td>3:00 PM – 6:00 PM</td>
<td>POSTER HANGING (Ballrooms B&amp;C)</td>
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<tr>
<td>5:00 PM – 5:45 PM</td>
<td>MaGNET Awardees and Mentors Introductions</td>
<td>Room 302B</td>
</tr>
<tr>
<td>6:00 PM – 7:00 PM</td>
<td>DINNER (Ballrooms B&amp;C)</td>
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**Thursday, February 29, 2024 (continued)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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</table>
| 7:00 PM – 9:00 PM | **SESSION 1 – WELCOME / FOSTERING DIVERSITY IN THE MAIZE COMMUNITY AND KEYNOTE SPEAKER**  
Chair: Rubén Rellán Álvarez |                  |
| 7:00 PM | **WELCOME AND ANNOUNCEMENTS**              | (Ballroom A)     |
| 7:20 PM | **Ricardo Salvador, Union of Concerned Scientists**  
*Phenomenology for maize experts: what do you see when you contemplate the map of global maize production?* | [KS1]            |
| 8:10 PM | **Peter Balint-Kurti, Agriculture Research Service, USDA**  
*Selected highlights of maize disease resistance genetics research: These are a few of my favorite things.* | [KS2]            |
| 9:00 PM – 12:00 AM | **INFORMAL POSTER VIEWING & HOSPITALITY**   | (Ballroom B&C)   |
Friday, March 1, 2024

7:00 AM – 7:50 AM  BREAKFAST (Ballrooms B&C)

7:30 AM – 12:30 PM  REGISTRATION (Registration Lobby)

8:00 AM – 10:10 AM  SESSION 2 – THE GENES THAT MAKE MAIZE

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>8:00</td>
<td>ANOUNCEMENTS (Ballroom A)</td>
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<tr>
<td>8:00</td>
<td>Xiquan Gao, Nanjing Agricultural University [T1]</td>
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<tr>
<td></td>
<td>An exocyst component ZmEXO70F4 coordinates with jasmonate signaling pathway to regulate maize immunity to Gibberella stalk rot</td>
</tr>
<tr>
<td>8:20</td>
<td>Annis Richardson, University of Edinburgh [T2]</td>
</tr>
<tr>
<td></td>
<td>Crazy leaves and truffula trees</td>
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<tr>
<td>8:40</td>
<td>Yun Luo, Huazhong Agricultural University [T3]</td>
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<tr>
<td></td>
<td>A thiamin pyrophosphate kinase encoding gene ZmTDPK2 finely regulates ear length and grain yield in maize</td>
</tr>
<tr>
<td>9:00</td>
<td>George Chuck, University of California Berkeley [T4]</td>
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<td></td>
<td>A novel domestication gene establishes developmental boundaries</td>
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<tr>
<td>9:20</td>
<td>Mark Lubkowitz, Saint Michael's College [T5]</td>
</tr>
<tr>
<td></td>
<td>Leaf angle and curricular innovation: a CURE for research and undergraduate education</td>
</tr>
<tr>
<td>9:40</td>
<td>Poster Lightning Talks</td>
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</tbody>
</table>

10:00 AM – 10:30 AM  BREAK  Ballroom ABC Lobby

10:30 AM – 12:30 PM  SESSION 3 – KEYNOTE SPEAKER AND McClintock Prize Presentation

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>10:30</td>
<td>Introduction (Ballroom A)</td>
</tr>
<tr>
<td>10:40</td>
<td>Terri Long, North Carolina State University [KS3]</td>
</tr>
<tr>
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<td>From the stars to your table - plants as complex conduits for iron nutrition</td>
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<tr>
<td>11:30</td>
<td>Mark Lubkowitz, Saint Michael's College</td>
</tr>
<tr>
<td></td>
<td>McClintock Prize Presentation Introduction</td>
</tr>
<tr>
<td>11:40</td>
<td>Caroline Dean, John Innes Center</td>
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<td></td>
<td>Polycomb memory to register environmental exposure [M1]</td>
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</tbody>
</table>
Friday, March 1, 2024 (continued)

12:30 PM – 1:30 PM  **LUNCH** (Ballrooms B&C)
MaGNET/PUI Networking Lunch  (301A)
MGC BoD and MGAC Lunch  (301B)

1:30 PM – 4:30 PM  **POSTER SESSION 1** (Ballrooms B&C)

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 Ballrooms B&C

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>4:40 PM – 6:00 PM</td>
<td><strong>SESSION 4 – NEW TOOLS AND RESOURCES I</strong>  (Talks 6-8.)</td>
</tr>
</tbody>
</table>
| 4:40 PM       | **Jonathan Matheka, University of Wisconsin-Madison** [T6]
Optimized ZmWOX2A-based transformation system enhances somatic embryogenesis, transformation efficiency, and gene editing efficiency in maize (Zea mays L.) and sorghum (Sorghum bicolor L.)

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<tr>
<th>Time</th>
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| 5:00 PM       | **Steve Johnson, Bayer** [T7]
Harnessing AI for Agricultural Innovation

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<tr>
<th>Time</th>
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| 5:20 PM       | **Micah Kelleher, Donald Danforth Plant Science Center** [T8]
A practical haplotype graph map of the ZeaSynthetic population enables integration of teosinte alleles into breeding efforts

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>5:40 PM</td>
<td><strong>Poster Lightning Talks</strong></td>
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6:00 PM – 7:00 PM  **DINNER** (Ballrooms B&C)
Bayer Student/Postdoc Dinner  (301A)
Friday, March 1, 2024 (continued)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speakers</th>
<th>Talks</th>
</tr>
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<tbody>
<tr>
<td>7:00 PM – 9:00 PM</td>
<td>SESSION 5 – NEW TOOLS AND RESOURCES II</td>
<td>Chair: Graziana Taramino</td>
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<td></td>
<td><strong>AWARDS</strong></td>
<td></td>
<td>Talks 9-10.</td>
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<tr>
<td>7:00 PM</td>
<td><strong>Esteban Bortiri, Syngenta</strong></td>
<td>[T9]</td>
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<td><em>Cyto-swapping in maize by haploid induction with a cenh3 mutant</em></td>
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<td>7:20 PM</td>
<td><strong>Javier Mendoza Revilla, InstaDeep</strong></td>
<td>[T10]</td>
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<td><em>A foundational large language model for edible plant genomes provides accurate predictions of regulatory elements and gene expression in the maize genome</em></td>
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<tr>
<td>7:40 PM</td>
<td><strong>Poster Lightning Talks</strong></td>
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<tr>
<td>8:00 PM</td>
<td><strong>John Fowler, Oregon State University</strong></td>
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<td></td>
<td><em>Presenting: Cooperator and Leadership Awards</em></td>
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<tr>
<td>8:20 PM</td>
<td><strong>Andrea Eveland, Donald Danforth Plant Science Center</strong></td>
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<td><em>Presenting: M. Rhoades Early-Career, L. Stadler Mid-Career</em></td>
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<tr>
<td>8:40 PM</td>
<td><strong>Marna Yandeau-Nelson, Iowa State University</strong></td>
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<td><em>Presenting: R. Emerson Lifetime Awards</em></td>
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<tr>
<td>9:00 PM – 12:00 AM</td>
<td><strong>INFORMAL POSTER VIEWING &amp; HOSPITALITY</strong></td>
<td>(Ballrooms B&amp;C)</td>
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</table>
Saturday, March 2, 2024

7:00 AM – 8:00 AM BREAKFAST (Ballrooms B&C)

8:00 AM – 12:00 PM REGISTRATION (Registration Lobby)

8:00 AM – 10:00 AM SESSION 6 – THE NITROGEN CONUNDRUM
Chair: Frank Hochholdinger

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>Jean-Michel Ane, University of Wisconsin-Madison [T11]</td>
<td>Biological nitrogen fixation on the aerial roots of maize for sustainable agriculture</td>
</tr>
<tr>
<td>8:40 AM</td>
<td>Sheng-Kai Hsu, Cornell University [T13]</td>
<td>The nitrogen cycle in the rhizosphere of diverse grass species in Andropogoneae</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>Stephanie Klein, Iowa State University [T14]</td>
<td>Genomic structural variation underlies differential root responses to nitrogen stress in maize</td>
</tr>
<tr>
<td>9:20 AM</td>
<td>Angela Kent, University of Illinois [T15]</td>
<td>Mining ancient genomes for microbiome associated phenotypes for nutrient retention in agroecosystems</td>
</tr>
</tbody>
</table>

9:40 AM Poster Lightning Talks

10:00 AM – 10:30 AM BREAK Ballroom ABC Lobby

10:30 AM – 12:30 PM SESSION 7 – KEYNOTE SPEAKERS
Chair: Hank Bass

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>10:30 AM</td>
<td>Anna Stepanova, North Carolina State University [KS4]</td>
<td>Leveraging synthetic biology to monitor and control plant hormone activity</td>
</tr>
<tr>
<td>11:40 AM</td>
<td>Natalia de Leon, University of Wisconsin-Madison [KS5]</td>
<td>Plant breeding and the infinitesimal model: cause or consequence</td>
</tr>
</tbody>
</table>

12:30 PM – 1:30 PM LUNCH (Ballrooms B&C)
MaGNET Lunch with Keynote Speakers (301A)
MGMSC Meeting (301B)
Maize Genetics Mentoring Program Networking Lunch (303)
Saturday, March 2, 2024 (continued)

1:30 PM – 4:30 PM  POSTER SESSION 2 (Ballrooms B&C)
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 Ballrooms B&C

4:30 PM – 6:00 PM  COMMUNITY SESSION - Maize Genetics Cooperative
Marna Yandeau Nelson, MGC BoD Chair (Ballroom A)

6:00 PM – 7:00 PM  DINNER (Ballrooms B&C)
Corteva Student/Postdoc Dinner (301A)
Syngenta Student/Postdoc Dinner (301B)

7:00 PM – 8:20 PM  SESSION 8 – MAIZE EVOLUTION
Chair: Matthew Hufford  Talks 16-19.

7:00 PM  Robert Martienssen, Cold Spring Harbor Laboratory [T16]
*Teosinte pollen drive guides maize diversification and domestication by RNAi*

7:20 PM  Ruth Epstein, Cornell University [T17]
*How recombination facilitated the domestication of maize.*

7:40 PM  Michael Bushe, University of Wisconsin-Madison [T18]
*Maize development is controlled by an ancient nutrient signaling pathway*

8:00 PM  Samantha Snodgrass, Iowa State University [T19]
*Fractionation in the Tripsacinae subtribe*

8:20 PM – 8:40 PM  BREAK  Ballroom ABC Lobby

8:40 PM – 9:40 PM  SESSION 9 – ROOTS AND FRIENDS
Chair: Stephanie Klein  Talks 20-21.

8:40 PM  Michelle Cho, Washington University Saint Louis [T20]
*ZmIRA1, a new root system architecture gene identified by phenomics*

9:00 PM  Jason Wallace, University of Georgia [T21]
*Genetic and environmental impacts on the maize microbiome across the United States*

9:20 PM  Poster Lightning Talks

9:40 PM – 12:00 AM  INFORMAL POSTER VIEWING & HOSPITALITY (Ballrooms B&C)
10:00 PM – 12:00 AM  TRIVIA!! (Ballrooms B&C)

Posters should be taken down by 12 AM!
Sunday, March 3, 2024

7:00 AM – 8:20 AM  BREAKFAST
(Ballroom ABC Lobby)

8:00 AM – 9:40 AM  SESSION 10 – THE REGULATED GENOME
Chair: Sarah Jensen
Talks 22-26.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>8:00</td>
<td>Andrea Gallavoti, Rutgers University</td>
<td>[T22] Exploring the cis-regulatory landscape of the B73 and Mo17 genomes</td>
</tr>
<tr>
<td>8:20</td>
<td>Sohyun Bang, University of Georgia</td>
<td>[T23] Understanding the role of ZmWUS1 and cis-regulatory elements in maize inflorescence development at single-cell resolution</td>
</tr>
<tr>
<td>8:40</td>
<td>Sunil Kenchanmane Raju, New York University</td>
<td>[T24] Integrating single-cell transcriptomes links organ-specific gene expression with function</td>
</tr>
<tr>
<td>9:20</td>
<td>Oliver Marchus, Ohio State University</td>
<td>[T26] x1 encodes a putative RNA-binding protein required for paramutations at multiple loci</td>
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</table>

9:40 AM – 10:00 AM  BREAK
Ballroom ABC Lobby

10:00 AM – 11:40 AM  SESSION 11 – METABOLIC REGULATION
Chair: Sherry Flint-Garcia
Talks 27-30.

<table>
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<tbody>
<tr>
<td>10:00</td>
<td>Elsbeth Walker, University of Massachusetts, Amherst</td>
<td>[T27] Strigolactone control of iron homeostasis in maize.</td>
</tr>
<tr>
<td>10:20</td>
<td>Ankita Abnave, University of Toledo</td>
<td>[T28] Upper level and cross hierarchical regulation of predominantly expressed phenolic genes in maize</td>
</tr>
<tr>
<td>10:40</td>
<td>Manwinder Singh Brar, Clemson University</td>
<td>[T29] Elucidating the metabolomic and single-cell transcriptomic landscape of maize leaf senescence</td>
</tr>
<tr>
<td>11:00</td>
<td>Jonathan Gent, University of Georgia</td>
<td>[T30] Potent pollen gene regulation by DNA glycosylases in maize</td>
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<tr>
<td>11:20</td>
<td>CLOSING REMARKS (Rubén Rellán Álvarez and Sherry Flint-Garcia)</td>
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<tr>
<td>11:30</td>
<td>ADJOURNMENT</td>
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