



US Wheat and Barley Scab Initiative GDER and PBG Joint Mid-year Meeting

Friday April 19, 2024

12:00 - 5:00 PM US Central Time (Virtual)

Zoom Meeting Link: You should have received it when you registered. If you don't have the email confirmation with Zoom link, contact nfo@scabusa.org and the email can be resent.

- **12:00 - 12:15 PM: Welcome**

- **12:15 - 1:15 PM: Session 1. Fungal pathogenicity -mechanism and regulation**

Dr. JinRong Xu (Purdue University)

Complex regulation of TRI5 expression and DON biosynthesis

Dr. Lovepreet Singh (University of Minnesota)

Differentiation of Fusarium graminearum chemotypes using single multiplex High Resolution Melting assay

Dr. John McLaughlin (Rutgers University)

Unraveling the chloroplast unfolded protein response (cpUPR) to trichothecenes

Isha Mittal (University of North Texas)

Dual RNA-sequencing to decipher the molecular mechanism underlying the Lpx3-knockdown-conferred resistance against Fusarium graminearum

- **1:15 - 2:30 PM: Session 2. Targets for enhancing FHB resistance**

Dr. Sean O'Mara (University of Minnesota)

Evaluating the function of the barley UDP-glucosyltransferase UGT13248 in resistance to Fusarium isolates producing different trichothecene structural variants

Dr. Yuzhou Xu (Kansas State University)

Map-based cloning of a FHB resistance gene on 2DS in wheat

Dr. Shaobin Zhong (North Dakota State University)

Editing wheat genes for enhancing FHB resistance through wide hybridization with maize expressing Cas9/sgRNA

Dr. Md Ashraful Islam (University of North Texas)

Mutations in NPR3 and NPR4 increase resistance against Fusarium graminearum in Arabidopsis and wheat

Dr. Prem Kumar Ganesan (University of Maryland)

Broad spectrum resistance of wheat pore-forming toxin-like gene against fungal pathogens

- **2:30-2:40 PM: Break**
- **2:40-3:40 PM: Session 3. Enabling Technologies & Resistance Mechanism Discovery**
 - Drs. Shengming Yang and Dangping Luo** (USDA-ARS, Fargo, ND)
Application of an altruistic approach for genotype-flexible transformation in barley
 - Dr. Yi-Wen Tseng** (Ohio State University)
*Establishing virus transfection methods in *Fusarium graminearum**
 - Dr. Ruolin Bian** (Kansas State University)
Relationship between plant height and FHB resistance in Jagger and its mutant
 - Drs. Sachin Rustgi & Gautam Saripalli** (Clemson University)
*Wheat kernel flavonoids: offering resistance to *Fusarium* Head Blight and Crown Rot*
- **3:40 - 4:00 PM: Developing Collaborations between GDER & PBG**
- **4:00 - 4:45 PM: Future Directions**
- **4:45 PM: Adjourn**