The Plant Science Retreat is a biennial event for members of the University of Nebraska Plant Science Community, hosted by the Center for Plant Science Innovation, providing a forum to hear and discuss the latest in Plant Science research.

Please visit the Li-Cor table, next to the registration table.
Friday, October 12

11:15–12:00  Arrival & Registration ................................................. Lower Lobby
♦ Please leave luggage in your car until check-in.
♦ Check-in after 4:00 p.m., Roommates check-in together.

11:30–12:45 Buffet Lunch (Nametags required) ....................... Timber Dining Room
12:15–12:45 Poster Setup ............................................................. Rosenow Room

Moderator: Harkamal Walia

12:50-1:00 Welcome and Introduction by Etsuko Moriyama
1:00–2:00 Keynote Speaker – Dr. Hasan Otu, “Network analysis of multiomic data using probabilistic graph representations”
2:00–2:30 Dr. Marc Libault, “Systems biology approach to crop root single cell-types and single cells”
2:30–2:50 Allison Barnes, Graduate Student, Roston Lab, “Activation of SENSITIVE TO FREEZING2 under multiple stresses”
2:50–3:10 Jaspreet Sandhu, Graduate Student, Walia Lab, “Developmental and context specific perturbation in seed DNA methylome in response to heat stress”
3:10–3:25 Break – Refreshments at the break bar

Moderator: Etsuko Moriyama

3:25–3:55 Dr. Jinliang Yang, "Genomics meets phonemics: towards disentangling the genetic architecture of the complex traits"
3:55–4:15 Raquel Rocha, Graduate Student, Wilson Lab, “Polyamine metabolism is an essential determinant of appressorium function”
4:15–4:35 Emily Wynn, Graduate Student, Christensen Lab, “Plant mitochondria don’t catch your drift: Maintenance of heteroplasmy between isolated populations of A. thaliana”
4:35–4:55 Dr. Adam Voshall, Post Doc, Moriyama Lab, “Simulating multiple ploidies in RNAseq data”
5:00–6:00 Poster Session ......................................... Rosenow Room (cash bar)
8:00–10:00 Poster Session ......................................... Rosenow Room (cash bar)

Thank you to the following for their generous donation of door prizes!

♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦

Agilent
Backpacks, mug/notebook sets

BRADY
BMP21-Lab Label Printer

CORNING
T-shirts, cups, mugs, photo/note holders

Fisher - $25 Visa Gift Cards

NEW ENGLAND BioLabs®
Fabric bags

Swag bag

10:00-12:00am Grad Student/Postdoc Party ................................................. Rosenow Room
7:00–8:15 Breakfast (Nametags required) ............................ Timber Dining Room

Room check-out is by 11:00 a.m. Please stop by the front desk to drop off your room key. Luggage can be put in the back of the conference room until you leave.

Presentations .................................................................................. Rosenow Room

Moderator: Massimo Pierobon

8:15-8:30 Setup / Introduction of Keynote Speaker by Massimo Pierobon


9:30–10:00 Dr. Juan Cui, “Integrated genomics study of non-coding RNA sorting and regulation”

10:00–10:20 Dr. Ab Rauf Shah, Post Doc, Helikar Lab, “A metabolic model of maize root and mutualistic soil microbes”

10:20–10:40 Break – Refreshments at the break bar

Moderators: Massimo Pierobon & Etsuko Moriyama

10:40–11:10 Dr. Erin Doyle, Doane University, “Improved workflows for computational prediction and analysis of TAL effector binding sites in the rice genome”

11:10–11:40 Dr. Toshihiro Obata, “Metabolomics meets genomics and biophysics in Nebraska”

11:40-12:10 Dr. Massimo Pierobon, “How many bits can go through this cell?” Information and communication theory applied to living systems

12:10–12:20 Presentation of Awards and Adjourn

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**WIFI Information**

Log into Lied Lodge Rooms (no password needed)
1 Mohamed Abdelmoteleb, Richard E. Goodman, Chi Zhang: Is there value interpreting plant genomes for allergy risk assessment?

2 Sanjay Antony-Babu, Karrie A. Weber: In silico evidence indicating Geobacter spp. as a plant growth promoting bacteria

3 Lucas Busta: Meta-analyses of chemical structures as tools for hypothesis generation

4 Erin Carr, Wayne Riekhof, Joshua Herr, & Steven Harris: Ebony and algal green: Characterizing fungal-algal interactions in a biological soil crust

5 Daniel S. Carvalho, Zhikai Liang, Christian Butera, Vincent Stoerger, James C. Schnable: High-throughput imaging and phenotyping of panicle grain crops

6 Betul Cetindere, Tammy Gries, Robert Graybosch, Scott Sattler, and P. Stephen Baenziger: Identifying the differential gene expression among low phytic acid and high grain protein trait in winter wheat

7 Xiuru Dai, Zhikai Liang, Daniel S. Carvalho, Pinghua Li, James C. Schnable: Identification of New Genes Involved in C4 Photosynthesis Using Comparative Genomics and Big Data

8 Balpreet K. Dhatt, Puneet Paul, Jaspreet Sandhu, Harkamal Walia: Two MADS box transcription factors play critical role during early seed development in rice

9 Ibrahaim Ebasyoni, Stephen Baenziger, Walied Eloraby: Screening worldwide spring wheat collection for yellow rust resistance in Egypt

10 Alessandro Franco: Fe and Cu status in melon with split root technique

11 Nikita Gambhir, Zhan N. Kamvar, and Sydney E. Everhart: Genome-wide mutations in Sclerotinia sclerotiorum after sub-lethal fungicide exposure

12 Ariadna Gonzalez-Solis, Yunfeng Liu, Gongshe Han, Rebecca Cahoon, Jonathan Markham, Teresa M. Dunn, Edgar Cahoon: Defining the functions of ORM proteins as regulators of sphingolipid metabolism

13 Sajjan Grover, Suresh Varsani, Scott Sattler, Joe Louis: Characterizing sorghum defenses responses to sugarcane aphanids

14 Mary M. Happ, Haichuan Wang, George L. Graef, David L. Hyten: Generating high density, low cost genotype data in soybean

15 Edward Hillman & Joshua R. Herr: Comparative and functional genomics of the Morchellaceae

16 Larissa Irvin, Jaspreet Sandhu: CRISPR/Cas9 mediated gene editing and expression knockouts of Myb gene in Oryza sativa

17 Sarah Johnson, T. Clemente; S. Sato; S. McConaughy; H. Wang; D. Hyten: Role of FANCM in soybean: A strategy to increase meiotic crossovers

18 Maya Khasin, Lois Bernhardson, Patrick O’Neill, Scott Sattler, Deanna Funnell-Harris: Abiotic stress shapes host-pathogen interaction through extensive signaling crosstalk in S. bicolor

19 Hae Jin Kim, John B. Ohrogge, and Edgar B. Cahoon: Identification of Acyl-ACP thioesterases from coriander developing endosperm for enhanced petroselinic acid production

20 Yeongho Kim, Daniela Morales-Sanchez, Itzela Cruz Solanilla, Rebecca Roston, Wayne R. Riekhof, Edgar B. Cahoon, Heriberto Cerutti: Engineering microalgal carbon metabolism toward wipid biosynthesis reduces protein content without growth defects

21 Anji Reddy Konda, Ki Youl Park, Kan Liu, Lucas Busta, Chi Zhang, Bin Yu, Thomas E. Clemente, and Edgar B. Cahoon: Development of synthetic biology tools for engineering of maize root traits

22 Yingshan Li, Eun-Jeong Kim, Adam Voshall, Etsuko Moriyama, Heriberto Cerutti: Novel small RNAs in the alga Chlamydomonas with a distinct biogenesis pathway

23 Martha Lopez-Guerrero (1), Peng Wang (1), Sophie Alvarez Y Albala, Daniel P. Schachtman, Karin van Dijk. (1) Co-contributors: Natural variation in maize root exudates: from belowground metabolites to understanding the underlying genetic control

24 Rebecca L. Roston, Alison Barns, Samira Mahboub: Low temperature stress perception changes stress responses

25 Leandra Marshall, Ying Ren, Oscar Rodriguez, and David Holding: Quality protein popcorn (QPP): Hybrid production and genomic analysis

26 Juliane Matczyszyn, S.E. Everhart, T. Harris, K. Powers, T.O. Powers: Phylogenetic and population structure of Mesocricotena xenoplax across the United States

27 Michael A. Meier, Martha G. López-Guerrero: Using a large maize diversity panel to identify genetic loci that shape root microbial communities under nutrient stress

28 Chenyong Miao, Alejandro D Pages, Vincent Stoerger, Yuhang Xu, James C. Schnable: Time-series GWAS in sorghum using non-parametric regression and machine learning

29 Semra Palali Delen, Yavuz Delen, Madhav Bhatta, Dr. Caixia Liu, Dr. Stephen Baenziger, Dr. Brian Waters: Variation of Cadmium (Cd), Zinc (Zn), Iron (Fe) in grain harvested from hybrid wheat

30 Ki Youl Park, Hae Jin Kim, Tara Nazarenus, Thomas Clemente, Edgar B. Cahoon: Development of a synthetic biology toolbox for enhanced production of TAG with specialized fatty acids in sorghum stem and leaves

31 Lise Pingault, Zhenzhen Qiao, Drexel Neumann, Robert Schmitz, Marc Libault: Characterization of the transcriptional changes during soybean root hair cell development.

32 Samantha Reese, Steve Harris, Mark Marten: An RNA-Seq analysis of how an Echinocandin antifungal drug effects gene expression over time

33 Ying Ren, Abou Yobi, Leandra Marshall, Devin Rose, Ruthie Angelovich, Oscar Rodriguez and David Holding: Breeding of quality protein popcorn (QPP)

34 Carlos Riera-Ruiz, Pavlovikj, N., Vélez-Arango, A., Moriyama, E.N.: Molecular evolutionary analysis of chemoreception proteins in the western corn rootworm, Diabrotica virgifera virgifera

35 Manny Saluja, Scott E. Sattler and Harkamal Walia: Characterizing the effect of lignin modification on sorghum root system

36 Joseph Schenk, Christy Jochum, and Gary Yuen: Evaluation of Lysobacter enzymogenes for biological control of Goss’s wilt in corn