

Participation:

The Symposium is open to MSU faculty, staff, graduate students and undergraduates, as well as members of neighboring institutions and the community.

Poster Session:

A poster session and open reception for the speakers will immediately follow the talks in the BPS atrium. Light refreshments will be served. Those who wish to present a research poster (4'X 4') are invited to do so. Graduate students and faculty associated with the Plant Breeding & Genetics and Genetics Graduate Programs are particularly encouraged to participate. Please RSVP a poster space by email to

Rita House at house@msu.edu or

Jeannine Lee at genetics@msu.edu

Student Luncheon:

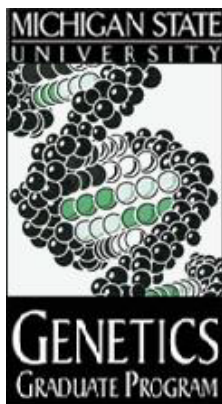
Plant Breeding, Genetics, and Biotechnology and Genetics Program graduate students: who would like to participate in the luncheon with the speakers please RSVP Rita House or Jeannine Lee.

Contact Information:

Steve van Nocker, Organizer
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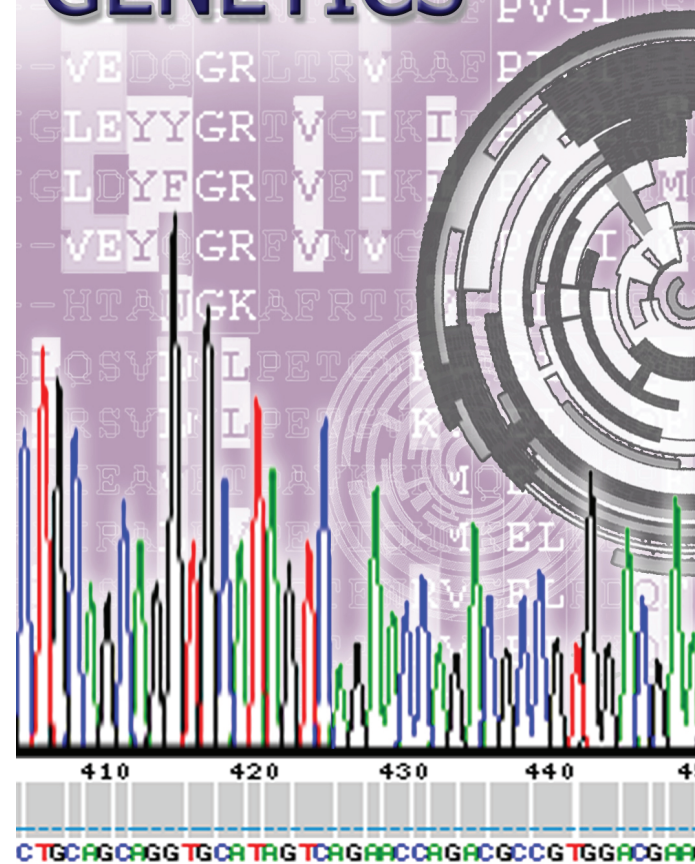
Jeannine Lee, Genetics Assistant
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Interdepartmental Graduate Programs in Genetics and Plant Breeding, Genetics and Biotechnology

Symposium 2009

NEXT GENERATION GENETICS



Friday, December 11, 2009
9 am - 4 pm
Michigan State University

Dr. Volkar Brendal

“Advances Towards Characterization, Modeling, Prediction, and Visualization of the Plant Transcriptome”

Dr. Volkar Brendal is the Berghdal professor of Bioinformatics at Iowa State University. Dr. Brendal received his M.Sc. degree in Applied Statistics from the University of Oxford and Ph.D. degree in Life Sciences from the Weizmann Institute. Before arriving at Iowa State, he did his postdoc and was a research associate and lecturer at Stanford University. Dr. Brendal’s research has focused on genome informatics, specifically understanding plant transcriptional control and pre-mRNA splicing. In addition, his group has developed many bioinformatic tools for browsing and studying plant genomes, including the popular online databases maizeGDB and plantGDB.

Dr. Jianming Yu

“Quantitative Genetics in Next Generation Genetics and Plant Breeding”

Dr. Jianming Yu obtained his PhD from the University of Minnesota in 2003. As a postdoc with Dr. Ed Buckler at Cornell, he helped develop methods for association mapping across complex pedigrees and population structure. Their work on nested association mapping created a “new era” in the study of quantitative traits. Currently, he is faculty at the department of Agronomy at Kansas State University, where his Genetic and Genomics for Crop Improvement laboratory focuses on developing novel methods of utilizing cutting edge genetic and genomic tools for complex trait dissection and plant breeding. Current research includes association mapping methods, plant breeding methodology, molecular mapping of complex traits (e.g., drought tolerance, salt tolerance, grain quality), and comparative genomics.

Schedule

- 8:00- Noon** Poster setup in BPS Atrium
- 9:00** Opening Remarks
A149 Plant and Soil Sciences
- Dr. Doug Buhler, Associate Director,
MI Agricultural Experiment Station**
- Eric Schauburger, Genetics PhD
Student**
- 9:15** Dr. Volker Brendal
**Iowa State University
A149 Plant and Soil Sciences**
- 10:15** Break
- 10:30** Dr. Jianming Yu
**Kansas State University
A149 Plant and Soil Services**
- 12:00** Lunch
**(students, speakers, and hosts)
Conservatory
Plant and Soil Sciences**
- 1:15** Dr. Rod Wing
**University of Arizona
1410 Biomed Phys Science**
- 2:15** Dr. Cristen Willer
**University of Michigan
1410 Biomed Phys Science**
- 3:15** Poster session/reception
BPS Atrium
- 4:30** Poster take-down

Dr. Rod Wing

“Comparative Genomics Across the Cereals: Oryza and Zea as Modelsystems”

Dr. Rod Wing is currently faculty at the School of Plant Sciences in the University of Arizona. Dr. Wing’s work has focused on structural, functional, and comparative genomics of crops. He was the leading investigator of the Oryza Map Alignment Project (OMAP) which has successfully aligned physical maps of 12 wild genomes of Oryza. This project significantly contributed to the continued understanding of evolution and physiology of the Oryza genus including rice domestication. Dr. Wing is also the director of the Arizona Genomics Institute (AGI) which was instituted when he moved to the university in 2002. His lab is involved in various types of genomic research that led to the development of tools and resources used in cereal genomics studies including the maize genome and full length cDNA sequencing projects. In addition, his lab also works on the molecular dissection of the formation of abscission zones using tomato as a model system.

Dr. Cristen Willer

“Biological relevance of loci detected using genome-wide association scans for lipid levels”

Dr. Cristen Willer is currently a postdoctoral fellow with the FUSION research group at the University of Michigan working with Dr. Michael Boehnke. Her research interests include complex genetic diseases, particularly the genetics of quantitative traits such as lipid levels and human obesity. She has also been working on imputation of ungenotyped markers, population genetics, bioinformatics, and understanding the functional effect of genetic associations.