Looking to the Future: Integrating Insights and Innovations in Plant Breeding

3rd Biennial Graduate Student Plant Breeding Symposium
NC State University, Talley Student Union, Coastal Ballroom
Thursday, February 4, 2016

A lunch will be served. The symposium is followed by a reception.

Registration

Registration deadline is January 29, 2016.
Registration space is limited, please email Christine Bradish with any registration questions.

Symposium Schedule

7:30 - 8:10	-	Registration with light refreshments
8:10 - 8:20	-	Welcome, Zachary Jones, Plant Breeding Club and Dean Linton, CALS
8:20 - 8:30	-	Talley Student Center Representative
8:30 - 9:30	-	Dr. Ron Sederoff
9:30 - 10:30	-	Dr. Seth Murray
10:30 - 11:00	-	Morning break with refreshments
11:00 - Noon	-	Dr. Richard Ferrieri
Noon - 1:30	-	Lunch for Registered Attendees
1:30 - 2:30	-	Dr. Dario Grattapaglia
2:30 - 3:30	-	Dr. Jim Lorenzen
3:30 - 3:45	-	Plant Breeding Club Presentation to Dr. Charlie Stuber

Featured Speakers

Looking for common ground: Integrating GMOs and Organic Crops

Dr Ron Sederoff, North Carolina State University

Ronald Sederoff is a Distinguished University Professor and the Edwin F. Conger Professor of Forestry and Environmental Resources at North Carolina State University (NCSU). For the past 30 years he has studied the genomics of forest trees, particularly, pines, eucalyptus, American chestnut, and poplars. His most recent work has focused on the systems biology of the lignin biosynthetic pathway. He served for six years on the USDA Agricultural Biotechnology Research Advisory Committee, and has contributed to six National Research Council publications on the application of biotechnology to agriculture and forestry. He is a Member of the U.S. National Academy of Sciences, a Fellow of the American Association for the Advancement of Science and a Member of the International Academy of Wood Science. He received an honorary degree (Doctor Honoris Causa) from the Swedish Agricultural University. In 2011 he was selected as Forest Biotechnologist of the year.

View Presentation

Breeding Maize for Dryland and Irrigated Southern Environments: the Role of Genetic Diversity and New Technology

Dr. Seth Murray, Texas A&M University

Seth Murray is an Associate Professor and Eugene Butler Endowed Chair in Agricultural Biotechnology in the Department of Soil and Crop Sciences at Texas A&M University. He received his PhD at Cornell University in 2008 working on the genetics of sorghum and a BS from Michigan State University. He directs a program focused on both quantitative genetic discovery and applied maize breeding for yield, aflatoxin resistance and stress tolerance in Texas. He has chaired 17 graduate students, authored 36 articles, and served in leadership roles for ASTA, the Crop Science Society and the National Association of Plant Breeders.

View Presentation

Herbivory by the Western Corn Rootworn Elicits Pathway-Specific Auxin Biosynthesis in Conjunction with Stimulated Root Re-growth as a Mechanism for Crop Tolerance

Dr. Richard Ferrieri, Brookhaven National Laboratory

Dr. Ferrieri earned his Ph.D. degree in Radiochemistry from Texas A&M University in 1979, and then became a postdoctoral fellow under Alfred Wolf at Brookhaven National Laboratory (BNL). He was later hired onto the scientific staff at BNL working on the medical applications of Positron Emission Tomography (PET). However, in 2002 Dr. Ferrieri shifted his interest away from medical research, and into plant biology leveraging many of the same imaging and radiochemistry tools to study basic plant function. He is credited with developing the first radiolabeled PET plant hormone for imaging, as well as with building a unique Plant Radiotracer Facility at BNL recognized world-wide for its integration of radiochemistry and plant phenomics. Dr. Ferrieri is now the Director of the BNL Facility for Radiotracer Research and Biological Imaging.

View Presentation

Genomic Prediction of Complex Phenotypes in Advanced Eucalypus Breeding

Dr. Dario Grattapaglia, Embrapa Genetics & Biotechnology, Brazil

Dario Grattapaglia is a research scientist at EMBRAPA (Brazilian Federal Corporation of Agricultural Research) and professor in the graduate programs of Genomic Sciences at the Catholic University of Brasília and molecular biology at the Federal University of Brasilia. He graduated as forest engineer from the University of Brasília (1985) and received his Ph.D. in Genetics (co-major in Forestry) from North Carolina State University in 1994 (Phi Kappa Phi 1992). His main areas of research include: (1) forest tree genetics and breeding of sustainable forest tree plantations for energy, pulp, paper and fiber; (2) genomic technologies applied to breeding practice; and (3) population genetics and conservation of tropical trees. He was project leader of the Genolyptus project, a public-private Brazilian network of Eucalyptus genomic research, and co-PI of the International Eucalyptus Genome Sequencing Project. He has trained over 40 graduate students, received several research and teaching awards and has served as expert consultant to several funding agencies and forest based industries in Brazil and abroad. He was elected fellow of the Brazilian Academy of Sciences in 2012.

View Presentation

Issues and Progress in Breeding the Clonal Staple Crops for the Tropics / Subtropics

Dr. Jim Lorenzen, Bill and Melinda Gates Foundation

Jim Lorenzen grew up in an agricultural community in NW Washington, did his undergraduate studies at WSU (Horticulture) and began his career in integrated development in community health teams in Bangladesh and Nepal. Graduate studies at Cornell University (NSF Fellow, Vegetable Crops) focused on potato physiology. He worked in Nepal as Research Advisor to the National Potato Research Program (bilateral project of Swiss Dev. Cooperation) for 3 years before faculty positions at North Dakota State University (Potato Physiology, Germplasm Enhancement) and Idaho (Potato Molecular Biology) for 15 years. He moved to Africa in 2006 as banana breeder, also becoming Program Leader for Banana/Plantain Systems with the International Institute of Tropical Agriculture (IITA), based in Uganda and Tanzania. He has published on molecular mapping of pest and disease resistance in potato and banana, molecular characterization of potato virus Y, and potato and banana physiology/biotechnology.

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Please direct symposium questions or concerns to Christine Bradish: cmbradis@ncsu.edu or Dr Charlie Stuber.

Hosted by the NC State University Plant Breeding Club, affiliated with The NC State Plant Breeding Consortium

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