
EVOLUTION OF PLANT PHENOTYPES FROM GENOMES TO TRAITS

PROGRAM COSMOCAIXA. C/ ISAAC NEWTON, 26. BARCELONA

Tuesday, March, 17th, 2015

9:00 **Opening**

9:30 **FIRST SESSION: MECHANISMS GENERATING GENOME VARIABILITY: THE ROLE OF POLYPLOIDY AND TES**

Chair: **Jonathan Wendel**, University of Iowa, USA

9:30 **Polyploidy and Novelty: Concepts, Meta-Analyses, and Phenotypic Studies in Tragopogon Allopolyploids**

Pam Soltis, University of Florida, USA

10:00 **Meiotic Adaptation to Whole Genome Duplication**

Kirsten Bomblies, Harvard University, Boston, USA

10:30 **Polyploidy, Shifts in Diversification and Associated Changes in Characters in Angiosperm Evolution**

Doug Soltis, University of Florida, USA

11:00 **Coffee Break**

11:30 **Polyploidy, Genome Evolution and Functional Novelty in Genus Spartina (Poaceae)**

Malika Ainouche, University of Rennes, France

12:00 **Transposable Elements, Structural Variation and the Plant Pan-Genomes**

Michele Morgante, IGA, University of Udine, Italy

12:30 **Developmentally Programmed Changes in Epigenetic Silencing of a Maize Transposon**

Damon Lisch, Purdue University, USA

13:00 **Lunch**

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14:30 **FIRST SESSION(cont.): MECHANISMS GENERATING GENOME VARIABILITY: THE ROLE OF POLYPLOIDY AND TES**

14:30 **DNA Methylation and Transposon Dynamics in Arabidopsis**
Tetsuji Kakutani, National Institute of Genetics, Japan

15:00 **Epigenetic Control of Plant Mobilomes**
Marie Mirouze, IRD, Perpignan, France

15:30 **General Discussion FIRST SESSION**

16:00 **Coffee Break**

16:30 **SECOND SESSION: EVOLUTION OF PLANT PHENOTYPES: WILD AND DOMESTICATED SPECIES**
Chair: **Michael Purugganan**, New York University, USA

16:30 **Decoding the Complexity of Quantitative Natural Variation and Response to the Environment in Arabidopsis thaliana**
Olivier Loudet, IJPB INRA, France

17:00 **Stability of Epialleles and Their Interaction**
Ortrun Mittelsten Scheid, GMI, Vienna, Austria

17:30 **Genetic and Molecular Architecture of Quantitative Traits in Plants: Arabidopsis thaliana as a Wild Model**
Carlos Alonso-Blanco, CNB, Madrid, Spain

18:00 **Genetic Analysis of Parallel Local Adaptation to Serpentine and Mine Soils in Mimulus**
John Willis, Duke University, USA

18:30 **Visit at CosmoCaixa Science Museum**

19:30 **Cocktail at CosmoCaixa**

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9:00 **SECOND SESSION (cont.): EVOLUTION OF PLANT PHENOTYPES: WILD AND DOMESTICATED SPECIES**

9:00 **Exploring Implications of Genome Function in Complex Environments Using Model and Non-Model Plants**

Christina Richards, University of South Florida, USA

9:30 **Divergence Population Genetics of De-Domestication via Endoferality in Oryza**

Amy Lawton-Rauh, Clemson University, USA

10:00 **The Maintenance of An Ecologically Relevant Trait in Nature: Fitness Costs, the Mating System, and the Genetics Underlying Herbicide Resistance in the Common Morning Glory, Ipomoea Purpurea**

Regina Baucom, University of Michigan, USA

10:30 **General Discussion SECOND SESSION**

11:00 **Coffee Break**

11:30 **THIRD SESSION: DOMESTICATION AND PLANT IMPROVEMENT: PUTTING SCIENCE INTO PRACTICE IN THE AID OF THE HUMAN CONDITION**

Chair: **Scott Jackson**, University of Georgia, USA

11:30 **Response to Divergent Selection for Flowering Time in Maize, from Phenotypes to Gene Network**

Maud Tenailon, INRA, Moulon, France

12:00 **Deciphering the Post-Neolithic Brassica napus Oilseed Genome: Subtile Crosstalks Between Constituent Homologous Subgenomes Generate Diversity**

Boulos Chalhouh, URGV-INRA, Évry, France

12:30 **TBA**

Jenifer Hawkins, West Virginia University, USA

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13:00 **Lunch**

14:30 **THIRD SESION (cont.): DOMESTICATION AND PLANT IMPROVEMENT: PUTTING SCIENCE INTO PRACTICE IN THE AID OF THE HUMAN CONDITION**

14:30 **Genetic and Genomic Resources in Melon and Their Use to Characterize Fruit Quality-Traits**
Jordi Garcia-Mas, CRAG, Barcelona, Spain

15:00 **Harnessing the Tomato Genome for Biological Discoveries with Practical Implications Toward Shelf-Life and Fruit Quality**
Jim Giovannoni, Boyce Thompson Institute, USA

15:30 **Evolution of the Collective Oryza Genome: Development and Analysis of a Genus-Wide Genome Biology Platform to Help Solve the 9-Billion People Question**
Rod Wing, University of Arizona, USA

16:00 **TBA**
Michael Purugganan, Dorothy Schiff, New York University (NYU), USA

16:30 **General Discussion THIRD SESSION**

17:00 **Concluding Remarks and Closing of the Meeting**

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