# THE FUTURE OF PLANT GENOMES. HARVESTING GENES FOR AGRICULTURE

**PROGRAM**

**COSMOCAIXA . C/ ISAAC NEWTON, 26. BARCELONA**

**Tuesday, October 9th, 2012**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Welcome</td>
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<td><em>Ignasi López,</em> “la Caixa” <em>Montserrat Vendrell,</em> Biocat <em>Pere Puigdomènech,</em> CRAG</td>
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<tr>
<td>9:20</td>
<td>SESSION 1</td>
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<td>ANALYSIS OF CEREAL GENOMES</td>
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<td>Genome Sequence-Based Improvement in Wheat: from Vision to Reality.</td>
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</table>
|       | *Catherine Feuillet*  
INRA Clermont-Ferrand, France                                           |
| 10:15 | Structural Variation in Maize: Consequences and Opportunities.          |
|       | *Patrick Schnable*  
Iowa State University, USA                                               |
| 11:10 | Coffee break                                                            |
| 11:40 | **Mechanisms, Specificities and Rates of Local Genome Rearrangement in the Grasses**  
*Jeff Bennetzen*  
University of Georgia, USA                                              |
| 12:35 | Genomics-based Barley Biology and Crop Improvement Now                  |
|       | *Nils Stein*  
IPK Gatersleben, Germany                                                 |
| 13:30 | Lunch                                                                    |
| 15:00 | **The Plant Pan-Genomes: from One for All to All for One**              |
|       | *Michele Morgante*  
Università di Udine, Italy                                                 |
| 15:55 | Coffee break                                                            |
| 16:15 | **Endlessly Repetitive Genomes: Where Zippers Jam**                     |
|       | *Alan Schulman*  
MTT & University of Helsinki, Finland                                    |
| 17:15 | Open Debate                                                              |
| 18:30 | Visit to CosmoCaixa and the 3D Planetarium                              |
| 19:45 | Dinner                                                                   |

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*B-DEBATE IS AN INITIATIVE OF:*  
*WITH THE COLLABORATION OF:*
THE FUTURE OF PLANT GENOMES. HARVESTING GENES FOR AGRICULTURE

Wednesday, October 10th, 2012

9:00 SESSION 2
BIOINFORMATICS IN GENOME ANALYSIS
How Much Computing Does Genome Analysis Require?
Ivo Gut
CNAG, Barcelona, Spain

9:55
Interrogating RNA Heterogeneity with Next Generation Instruments
Roderic Guigo
CRG, Barcelona, Spain

10:00 Coffee break

11:20
From Genome Databases to Breeding Information Appliances
Lukas Mueller
BTI, Cornell, USA

12:15
The Complexity of Plant Genomes: Genome Structure, Gene Functions and Beyond
Klass Vandepoele
Ghent University, Belgium

12:20 Lunch

14:30 SESSION 3
ANALYSIS OF DICOT GENOMES
A First View on the Complexity of the Solanaceae Genomes
Christian Bachem
Wageningen University, The Netherlands

15:25
Utricularia Gibba: the Small Genome of a Carnivorous Plant with Miniature Intergenic Region and Absence of Active Transposable Elements
Luis Herrera-Estrella
Langebio, Irapuato, Mexico

16:00 Coffee break

16:40
Applied Breeding in Fruitculture: Dealing with Fruit Crop Genomes
Riccardo Velasco
IASMA, Italy

17:35
We Sequenced the Melon Genome. Will Melons Taste Sweeter?
Jordi Garcia-Mas
CRAG, Barcelona, Spain

18:30
Open Debate

19:30
Free time
THE FUTURE OF PLANT GENOMES. HARVESTING GENES FOR AGRICULTURE

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Thursday, October 11th, 2012

9:00 SESSION 4
NATURAL VARIABILITY
Arabidopsis Natural Variation: Mapping Populations, QTLs, Genes and ‘Omnics’

Maarten Koornneef
Max Planck Institute for Plant Breeding Research, Koln, Germany

9:55 SESSION 5
HTP SEQUENCING OF PLANT GENOMES
Sequencing, Sequencing, and Sequencing

Jun Wang
BGI, China

10:50 Coffee break

11:20 SESSION 6
GENOME ANALYSIS IN SEED COMPANIES
Agricultural Alchemy: Translating Genomic Data into Crop Performance

Erik Legg
Syngenta Seeds, USA

12:15
Genetic and epigenetic diversity of maize: A plant breeding perspective

Antoni Rafalski
Pioneer-Dupont, USA

13:10
Closing and conclusion remarks

14:00
Visit and lunch at CRAG