Draft Conference Programme

Wednesday 16 October 2019

09:00-12:50    Registration

10:00-12:00    Bioinformatics resources in plant science

Chair: Cristobal Uauy, John Innes Centre, UK

10:00  Unlocking the polyploidy potential of wheat through genomics
Cristobal Uauy
John Innes Centre, UK

10:20  ENSEMBL plants – Visualizing the Wheat Genome in Ensembl Plants
Guy Naamati
EMBL-EBI, UK

10:40  Expression atlas - Submission, archival and visualisation of plant sequencing data
Nancy George
EMBL-EBI, UK

11:00  Benchmarking and development of an ensemble motif mapping approach to improve gene regulatory network inference
Marc Jones
VIB / Ghent University, Belgium

11:20  No genome required: Finding genetic variants associated with plant phenotypes without complete genome information
Yoav Voichek
Max Planck Institute for Developmental Biology, Germany

12:00-12:50    Buffet Lunch

12:50-13:00    Welcome and Introductions
Joy Bergelson, University of Chicago, USA
13:00-14:00  **Keynote Lecture**  
*Chair: Joy Bergelson, University of Chicago, USA*

The 4th dimension of Gene Regulatory Networks: TIME  
*Gloria M Coruzzi*  
*New York University, USA*

14:00-17:30  **Session 1: Abiotic stress (Improving plants for tolerance of abiotic stress)**  
*Chair: Cristobal Uauy, John Innes Centre, UK*

14:00  Common gardens in teosintes reveal the establishment of a syndrome of adaptation to altitude  
*Maud Tenaillo*  
*INRA-Le Moulon, France*

14:30  Systems genetics of rice adaptation to drought stress  
*Simon Groen*  
*New York University, USA*

14:45  Rice ‘Heat MAGIC’ mapping  
*Funmi Ladejobi*  
*University College London, UK*

15:00-15:30  **Afternoon Tea**

15:30-17:15  **Session 1 continued: Abiotic stress (Improving plants for tolerance of abiotic stress)**  
*Chair: Cristobal Uauy, John Innes Centre, UK*

15:30  Genetic and genomic studies of climate adaptation and genotype-by-environment interaction in switchgrass (*Panicum virgatum*)  
*Tom Juenger*  
*University of Texas at Austin, USA*

16:00  Reducing Crop Water Use by Engineering Stomatal Development  
*Julie Gray*  
*University of Sheffield, UK*

16:30  HYDROSIGNALLING: Uncovering how plant roots sense water availability  
*Malcolm Bennett*  
*University of Nottingham, UK*

17:00  Analysis of alternative splicing regulation by Abscisic acid in Arabidopsis thaliana  
*Sivakumar Krishnamoorthy*  
*Adam Mickiewicz University, Poland*

17:15-18:00  **Lightning talks**

18:00-19:00  **Poster Session 1 (odd numbers) with drinks reception**
Thursday 17 October 2019

Session 2: Biotic Stress (Improving plants for tolerance of biotic stress)
Chair: Joy Bergelson, University of Chicago, USA

09:00 Exploring the compatible Fusarium-wheat interaction using a multi-'omics' approach
Kim Hammond-Kosack
Rothamsted Research, UK

09:30 From the Microbiome to the Gene: Mapping the genes in a leaf microbiome responsible for strain-specific pathogenicity
Talia Karasov
Max Planck Institute for Developmental Biology, Germany

10:00 Exploring and utilization of rice resources with broad-spectrum resistance against blast disease
Xuwei Chen
Sichuan University, China

10:30 Do environmental changes induce retrotransposon expression in plants?
Flavia Mascagni
University of Pisa, Italy

10:45 Functional genomics of European hazel (Corylus avellana L.) to address an emerging, destructive powdery mildew pathogen
Stuart Lucas
Sabanci University, Turkey

11:00-11:30

Morning Coffee

11:30 Natural genetic variation in the response of Arabidopsis to Plasmodiophora brassicae infection
William Truman
IPG PAS Poznan, Poland

12:00 The Arabidopsis immunity network and its response to temperature
Jane Parker
Max Planck Institute for Plant Breeding Research, Germany

12:30 Pathogen-informed strategies for sustainable broad-spectrum resistance in crops
Bart Thomma
University of Wageningen, The Netherlands
13:00-14:00  Lunch

14:00-15:00  **Keynote Lecture**
*Chair: Michele Morgante, University of Udine, Italy*

Beyond single genes: receptor networks underpin plant immunity
*Sophien Kamoun*
*The Sainsbury Laboratory, UK*

15:00-15:30  **Afternoon Tea**

15:30-17:30  **Session 3: New Technologies**
*Chair: Michele Morgante, University of Udine, Italy*

15:30  Using data science to understand plant gene regulation
*Daphne Ezer*
*University of York, UK*

16:00  Revealing plant-microbe interactions by applying Spatial Transcriptomics
*Stefania Gracomello*
*SciLifeLab, Sweden*

16:30  Structure, stability and phenotypic relevance of DNA methylation in Thlaspi arvense natural populations
*Dario Galanti*
*University of Tubingen, Germany*

16:45  Nanopore Direct RNA Sequencing Maps the Arabidopsis m6A Epitranscriptome
*Matthew Parker*
*University of Dundee, UK*

17:00  Improving gene regulatory network inference from ATAC-Seq data using an ensemble motif mapping approach
*Marc Jones*
*VIB / Ghent University, Belgium*

17:15  No genome required: Finding genetic variants associated with plant phenotypes without complete genome information
*Yoav Voichek*
*Max Plank Institute for Developmental Biology, Germany*

17:30-18:15  Lightning talks

18:15-19:15  **Poster Session 2 (even numbers) with drinks reception**

19:15 prompt  **Conference Dinner**

19:15  **Cash Bar**
**Friday 18 October 2019**

09:30-10:30  **Keynote Lecture**  
*Chair: Joy Bergelson, University of Chicago, USA*  

The zygotic transition in rice and application to self-propagating hybrid crops  
*Venkatesan Sundaresan*  
*University of California- Davis, USA*

10:30-13:00  **Session 4: Other Strategies for sustaining yield performance in a changing environment**  
*Chair: Michele Morgante, University of Udine, Italy*  

10:30  The genetics of plant-plant interactions: from monospecific to community-wide interactions  
*Fabrice Roux*  
*INRA, France*

11:00-11:30  **Morning Coffee**

11:30  Increasing meiotic recombination in plants  
*Raphael Mercier*  
*MPI Cologne, France*

12:00  Understanding mechanisms of response to complex environmental conditions in non-model plants  
*Christina Richards*  
*University of South Florida, USA*

12:30  A haplotype-based approach reveals previously undetectable variation across a yield associated QTL in hexaploid bread wheat  
*Jemima Brinton*  
*John Innes Centre, UK*

12:45  Defining the physiological determinants of low nitrogen requirement in wheat  
*Stephanie Swarbreck, UK*  
*National Institute of Agricultural Botany,*

13:00-13:15  **Closing Remarks**  
*Cristobal Uauy, John Innes Centre, UK*

13:15-14:15  **Lunch**

14:15  **Coaches depart to Cambridge City Centre and Train Station, Stansted Airport via Heathrow Airport**