

Conference Programme

4th Conference of Cereal Biotechnology and Breeding
jointly organized by EUCARPIA Cereal Section

November 6-9, 2017 / Budapest, Hungary / Danubius Hotel Gellért

Monday, November 6, 2017

16:00 Registration desk opens

17:00 17:20 Welcome from the Organizers

17:00 19:00 Welcome Reception

Tuesday, November 7, 2017

8:30 9:00 Opening Ceremony

T1: Plant genetic resources

Chairs: János Pauk & Andreas Börner

9:00	9:25	Plant genetic resources in the global genebanks – conservation and exploitation	Andreas Börner Invited Speaker	Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany
9:25	9:40	Exploiting Natural Diversity for Genetic Improvement of Bread Wheat	Bianyun Yu	Aquatic and Crop Resources Development, National Research Council Canada, Canada
9:40	9:55	Tritordeum: a man-made cereal	Antonio Martín	Institute for Sustainable Agriculture (CSIC), Spain
9:55	10:10	Mutational breeding for low-phytate barley grain	Søren K. Rasmussen	University of Copenhagen, Dept. of Plant and Environmental Sciences, Denmark
10:10	10:25	Finding a black cat in a dark room – Identification of the Mlo gene in Triticum monococcum L.	Beáta Vitányi	NAIK-Agricultural Biotechnology Institute, Hungary
10:25	10:40	Examination of genetic components determining the environmental adaptation of bread wheat (<i>Triticum aestivum</i> L.)	Tibor Kiss	Agricultural Institute, Centre for Agricultural Research, Hungarian Academy of Sciences, Hungary
10:40	10:55	Discarding of the postzygotic reproductive barrier between hexaploid wheat (<i>Triticum aestivum</i> L.) and rye (<i>Secale cereale</i> L.)	Natalia Tikhenko	Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany
10:55	11:10	Transcriptome comparative analysis of rye inbred lines, different in terms of wax layer	Magdalena Górska	Department of Genetics, West Pomeranian University of Technology, Poland
11:10	11:40	Coffee Break		

T3: Breeding informatics

Chairs: Sophie Bouchet & András F. Bálint

11:40	12:05	Optimization of breeding schemes using genomics, genomic predictions and simulations	Sophie Bouchet Invited Speaker	INRA-UCA UMR GDEC, France
12:05	12:20	Combining high density GWAS and grain ionomics to identify a major gene influencing sodium content.	Kelly Houston	Cell and Molecular Sciences, The James Hutton Institute, United Kingdom
12:20	12:35	Genome-wide association study of nitrogen use efficiency in a Central European winter wheat collection	István Monostori	Agricultural Institute, Centre for Agricultural Research, Hungarian Academy of Sciences, Hungary
12:35	12:50	Screening drought adaptive phenological traits in conventional and synthetic derived bread wheat germplasm and its implications for association mapping	Ahmad Ali	Center for Plant Sciences and Biodiversity, University of Swat, Pakistan
12:50	13:05	Association mapping studies on drought tolerance in spring barley gene bank accessions	Rasha Tarawneh	Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany
13:05	14:20	Lunch		

T2: New plant genome editing technologies

Chairs: Viktor Korzun & Wendy Harwood

14:20	14:45	CRISPR / Cas9 genome editing in wheat and barley	Wendy Harwood Invited Speaker	Department of Crop Genetics, John Innes Centre, United Kingdom
14:45	15:00	An application of CRISPR/Cas9 technique: modifying α -gliadin proteins in bread wheat to decrease the risk of Coeliac disease in humans	Aurelie Jouanin	NIAB, Genetics & Breeding, United Kingdom
15:00	15:15	Genome Editing in Barley: Targeting (1,3;1,4)- β -Glucan Synthases	Guillermo G. Gimenez	The James Hutton Institute, United Kingdom

T5/1: Breeding for intensive and semi intensive cereal production

Chairs: Viktor Korzun & Wendy Harwood

15:15	15:40	Winter Wheat Breeding.....the Present and the Future	Mike Taylor Invited Speaker	Limagrain GmbH, Germany
15:40	15:55	Integration of molecular markers and doubled haploids in wheat and barley breeding: A case study from Morocco	Sripada M. Udupa	International Center for Agricultural Research in the Dry Areas (ICARDA), Morocco
15:55	16:10	Improving Chilean durum wheat (<i>Triticum turgidum</i> L.var. durum) grain quality through breeding	A.R. Schwember	Departamento de Ciencias Vegetale, Pontificia Universidad Católica de Chile, Chile

16:10	16:25	Application of androgenesis in cereal breeding	Csaba Lantos	Cereal Research Non-profit Ltd., Hungary
16:25	16:40	Changing the wheat breeding paradigm – examples from practice	Borislav Kobiljski	Biogramum d.o.o., Serbia

T6: Breeding for organic and low input food systems

Chairs: Viktor Korzun & Wendy Harwood

16:40	16:55	Breeding of spelt wheat for organic and low-input agriculture	Heinrich Grausgruber	Department of Crop Sciences, University of Natural Resources and Life Sciences, Austria
16:55	17:10	Performance and selection of winter durum wheat genotypes in different European conventional and organic fields	Péter Mikó	Agricultural Institute, Centre for Agricultural Research, Hungarian Academy of Sciences, Hungary
17:10	17:40	Coffee Break		
17:10	18:30	Poster Session		

Wednesday, November 8, 2017

T4: Phenotyping & Phenomics

Chairs: Ákos Mesterházy & Ulrich Schurr

8:30	8:55	Non-invasive phenotyping - from lab to field: challenges and opportunities for biotechnology and breeding	Ulrich Schurr Invited Speaker	Institute of Bio- and Geosciences Plant Sciences (IBG-2), Forschungszentrum Jülich, Germany
8:55	9:10	Application of high-throughput phenotyping to understand the genetic architecture of biomass growth in cereals	Kerstin Neumann	Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany
9:10	9:25	MAPEO, Drone based phenotyping for plant breeders	Dries Raymaekers	Flemish Institute for Technological Development (VITO), Belgium

T5/II: Breeding for intensive and semi intensive cereal production

Chairs: Ákos Mesterházy & Ulrich Schurr

9:25	9:40	Breeding for resistance to aphids in wheat and barley	Inger M. Åhman	Swedish University of Agricultural Sciences, Department of Plant Breeding, Sweden
9:40	9:55	Towards breeding for higher photosynthetic efficiency under heat stress in bread wheat	Dew Kumari Sharma	Department of Plant and Environmental Sciences, University of Copenhagen, Denmark
10:00	10:20	Coffee Break		

T7: Plant adaptation and resilience

Chairs: Gábor Galiba & Sven Gottwald

10:20	10:45	Resequencing the barley exome to identify genes controlling plant adaptation to environment	Luigi Cattivelli Invited Speaker	CREA Research Centre for Genomics and Bioinformatics, Italy
10:45	11:00	Addition of Aegilops U and M Chromosomes Affects Protein and Dietary Fiber Content of Wholemeal Wheat Flour	Marianna Rakszegi	Agricultural Institute, Centre for Agricultural Research, Hungarian Academy of Sciences, Hungary
11:00	12:15	Dry matter remobilization and compensatory effects in different plant parts of durum wheat genotypes under water stress	Murat Tiryakioğlu	Department of Field Crops, Faculty of Agriculture, Mustafa Kemal University, Turkey
12:15	12:30	Effect of simultaneous heat-and-drought stress in wheat	Katalin Jäger	Agricultural Institute, Centre for Agricultural Research, Hungarian Academy of Sciences, Hungary
12:30	12:45	Durum Wheat Evaluation Using Carbon Isotope Discrimination and Numerical Analysis of Image for Leaf Senescence	Hafsi Miloud	Department of Agronomy, University Setif 1, Algeria
12:45	13:00	Identification And Release Of A Salt Tolerant Wheat Variety For The Saline Areas Of Bangladesh	Md. Abul Kalam Azad	Institute of Nuclear Agriculture (BINA), Bangladesh
13:00	14:15	Lunch		
14:15	20:00	Site visit and Conference Dinner at Martonvásár		

Thursday, November 9, 2017

T7: Plant adaptation and resilience

Chairs: Luigi Cattivelli & Mike Taylor

8:30	8:55	Circadian and light quality regulated expression of CBF genes influences the cold acclimation process in cereals	Gábor Galiba Keynote presentation	Agricultural Institute, Centre for Agricultural Research, Hungarian Academy of Sciences, Hungary
8:55	9:10	Is it possible to select wheat genotypes with improved tolerance to soil constraints?	John (Jack) Christopher	The University of Queensland, Australia
9:10	9:25	Role of protective compounds in cereals	Magda Pál	Agricultural Institute, Centre for Agricultural Research, Hungarian Academy of Sciences, Hungary
9:25	9:50	How to reduce DON contamination by 90% in wheat by breeding and fungicide use in wheat?	Akos Mesterhazy Keynote presentation	Cereal Research Non-profit Ltd., Hungary
9:50	10:05	Mass spectrometry imaging a new tool in plant pathology research: Visualisation of molecular wheat-F. graminearum interactions	Sven Gottwald	Institute for Biotechnology in Plant Production, University of Natural Resources and Life Sciences, Austria

T8: Utilization of cereals: from bread to beer

Chairs: Luigi Cattivelli & Mike Taylor

10:05	10:20	Kebari, Gluten-free barley: from lab to market	Philip Larkin	CSIRO Agriculture and Food, Australia
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10:20	10:35	Dough and bread qualities of waxy and high-amylose wheats and the nutritional and functional improvements of these wheats during germination	Naofumi Morita	Department of Food Packaging Technology, Toyo College of Food Technology, Japan
10:35	10:50	Development and characterisation of wheat with low-viscosity grain extracts using novel alleles of IRX9 orthologue TaGT43_2.	Till Pellny	Rothamsted Research, United Kingdom
10:50	11:30	Farewell Drink & Closing Remarks		

The Organisers reserve the right to make changes in the Conference programme