

Plant GEM Scientific Program

The 7th Plant GEM envisage 12 sessions. You can read further details in the list below. There are also community organized workshops during P-GEM.

The Organising Committee of the 7th Plant Gem Meeting will accept the submission of abstracts for presentation as posters until August 20th. **No abstracts will be considered for a Selected Talk after July 21st.**

Attention: There are also community organized **parallel meetings and workshops** supported by P-GEM. Here you can get [further details](#).

 [Download PlantGEM7 Program](#)

 [Download PlantGEM7 Workshop Program](#)

Meeting venue: Flamingo Grand Hall, Hotel Grand Flamingo

Wednesday, September 24

09:30-15:00 **Plant Gem Meeting registration - Hotel Grand Flamingo**
Posters set up - Flamingo Grand Hall

Opening Session:
Highlights in Genomics/ Opening Keynote Lectures

Chair: Atanas Atanassov

15:00-15:30 Welcoming address from the organizers and local authorities

15:30-15:55 **Contributions from Framework Programme 7 to Plant Genomics**
Alfredo Aguilar, European Commission - DG Research (Brussels, Belgium)

15:55-16:20 **European Technology Platform "Plants for the Future"**
Marc Cornelissen, TP Executive Committee Member

16:20-16:50 Opening keynote lecture:
The path forward : From functional genomics to systems biology
Lothar Willmitzer (Max-Planck-Institute of Molecular Plant Physiology, Golm, Germany)

16:50-17:20 Opening keynote lecture:
Heterosis: new tools and complexities
Patrick Schnable (Iowa State University, USA)

18:30-22:00 Welcome Reception - Hotel Grand Flamingo

22:00 Return to Official Meeting Hotels

Thursday, September 25

Session 1.
Emerging Plant Genomics Tools and Platforms

Co-Chairs: Valerie Frankard & Raicho Dimkov

- 08:30-09:00 **SoluCel technology platform - Plant cells as efficient green factories**
Anneli Ritala (VTT, Finland)
- 09:00-09:30 **High throughput approaches to elucidating the molecular biology of crop yield**
Valerie Frankard (Crop Design, Belgium)
- 09:30-09:55 **Current Status of Monocot Genetic Transformation Platforms in Europe**
Huw Jones (Rothamsted Research, UK)
- 09:55-10:20 **ERA-NET Plant Genomics**
Christine Bunthof (ERA-PG, www.erapg.org)
- 10:20-10:45 **Development of a multi-parental (four-way cross) mapping population for multi-allelic QTL analysis in durum wheat**
Marco Maccaferri (DiSTA, Bologna, Italy)
- 10:45-11:15 Poster viewing & Coffee break

Session 2. Genomes of Model Plants and Crops

Co-Chairs: Dorothea Bartels & Tsanko Gechev

- 11:15-11:45 **Desiccation tolerance: how to dissect the complex response network?**
Dorothea Bartels (University of Bonn, Germany)
- 11:45-12:10 **Current status in developing a genome-wide physical map in barley (*Hordeum vulgare L.*)**
Daniela Shulte (IPK, Gatersleben, Germany)
- 12:10-12:35 **Identifying genes involved in leaf development using PopGenie: A new resource for exploring the poplar genome**
Nathaniel Street (Umeå University, Sweden)
- 12:35-13:00 **The *sua* mutant is an allele specific suppressor of the seed maturation mutant *abi3-5* in *Arabidopsis***
Matteo Sugliani (MPI, Cologne, Germany)
- 13:00-13:20 **Applied Biosystems Workshop: Enabling RNA Analysis Solutions Using SOLiD(TM) System Next Generation Sequencing Platform**
Thomas Rygus, PhD (Senior Specialist Business Development, Next Generation Sequencing Applied Biosystems Europe)
- 13:00-14:00 Poster Viewing & Lunch in "Essentials" restaurant

Session 3. Genome Structure & Comparative Genomic Approaches

Co-Chairs: Catherine Feuillet & Ivan Atanassov

- 14:00-14:30 **A glimpse into the impossible: physical mapping and comparative analyses of the giant hexaploid wheat genome**
Catherine Feuillet (INRA-ASP, Clermont-Ferrand, France)
- 14:30-15:00 **Structure of the Soybean (*Glycine max*) Genome and Comparisons to Common Bean (*Phaseolus vulgaris*)**
Scott Jackson (Purdue University, West Lafayette, USA)
- 15:00-15:25 **Cereal Ancestor Genome Structure and Evolution**
Jerome Salse (INRA-ASP, Clermont-Ferrand, France)
- 15:25-15:50 **Will second generation sequencing technology impact the strategy of sequencing the barley genome?**
Nils Stein (IPK, Gatersleben, Germany)
- 15:50-16:20 Poster viewing & Coffee break

Session 4.
Gene and genome evolution under domestication

Co-Chairs: Willem Stiekema & Sevdalin Georgiev

- 16:20-16:50 **The SOL Genome Project**
Willem J. Stiekema (Centre for BioSystems Genomics, Wageningen, The Netherlands)
- 16:50-17:20 **Domestication as genetic phenomena**
Valeriy Glazko (SAU, Moscow, Russia)
- 17:20-17:45 **Exploiting molecular evolution of barley vernalization and photoperiod genes under domestication for the rational manipulation of flowering time**
Donal O Sullivan (NIAB, Cambridge, UK)
- 20:00 Wine tasting with folklore programme- restaurant "Bulgarian Fiesta"

Session 4a.
Genomics perspectives for cooperation of Black Sea Biotechnology Association (BSBA) and ERA-PG 16:20-18:10 Hall Ara in Hotel Grand Flamingo (in parallel to session 4)

Chair: Atanas Atanassov

- 16:20-18:10 **The Importance of Public - Private Partnerships in Strategizing the Future of Agricultural Biotechnology**
Roger Beachy (Donald Danforth Plant Science Center, USA)
- Joint Genomics studies on grape, sunflower, plum pox virus in the BSBA countries as a groundbase for cooperation with ERA-NET Plant Genomics:**
- Grape Genomics**
Tsvetanka Hvarleva (Bulgaria),
Doru Pamfil (Romania)
- Sunflower Genomics**
Yalcin Kaya (Turkey),
Miryana Milosevic (Serbia)
- Plum Pox Virus**
Ivanka Kamenova (Bulgaria),
Sergey Dolgov (Russia)

Q&A, Discussion

Friday, September 26

Session 5.
Natural Variation & Ecosystem Genomics

Co-Chairs: Alan Schulman & Bojin Bojinov

- 08:30-09:00 **The role of retrotransposons in genome dynamics over gradients of space and time**
Alan Schulman (MTT, Finland)

- 09:00-09:30 **Directions of ecological genomics**
Malgorzata Korbin (RIPF, Skernevice, Poland)
- 09:30-09:55 **The Division of Wild Barley (*Hordeum spontaneum*) to Meta-Population Structure is Attributed Primarily to Temperature Variation**
Eyal Fridman (The Hebrew University, Israel)
- 09:55-10:20 **Characterization of Ac transposon – homologous sequences in wheat genome**
Sevdalin Georgiev (Sofia University, Bulgaria)
- 10:20-11:00 Poster Viewing & Coffee break

Session 6. Plant Systems Oriented Genomics

Co-Chairs: Lothar Willnintser & Nikolai Christov

- 11:00-11:30 **Functional genomics: a new force in plant cell wall biology**
Geoffrey B. Fincher (ACPF, Adelaide, Australia)
- 11:30-12:00 **Cellulose synthase complex of Arabidopsis secondary cell walls: purification, subunit composition and interaction**
Ivan Atanassov (ABI, Bulgaria)
- 12:00-12:25 **Dissecting the steps leading to peach ripening by means of microarray expression profiling of ripening peach treated with ethylene, auxin and 1-methylcyclopropene**
Livio Trainotti (UP, Padova, Italy)
- 12:25-14:00 Poster viewing & Lunch in "Essentials" restaurant

Session 7. Bioinformatics & Process Oriented Approaches

Co-Chairs: Jack Leunissen & Dimitar Vassilev

- 14:00-14:30 **The quest for orthologs**
Jack Leunissen (WUR, Wageningen, The Netherlands)
- 14:30-15:00 **Barley data integration: a case history of comparative genomics**
David Marshall (SCRI, Dundee, UK)
- 15:00-15:25 **The GABI Primary Database: GabiPD – Integration of plant 'omics' data**
Birgit Kersten (MPI, Golm, Germany)
- 15:25-15:50 **Whole transcriptome analysis of germinating smoke water treated maize seeds**
Endre Sebestyén (ARI, HAS, Hungary)
- 15:50-16:20 Poster Viewing & Coffee break

Session 8. Phenotypic Plasticity on Biotic & Abiotic Stresses

Co-Chairs: Beat Keller & Elena Marinova

- 16:20-16:50 **Molecular and functional diversity of powdery mildew resistance genes in the wheat gene pool**
Beat Keller (University of Zurich, Switzerland)
- 16:50-17:20 **Functions of cold shock domain proteins in plants**

- Ryozo Imai (NARC Hokkaido, Sapporo, Japan)
- 17:20-17:45 **Advances in positional cloning of PpALG1 and Pp523, two linked downy mildew adult-plant resistance genes in *Brassica oleracea* L.**
José Leitão (UA, Faro, Portugal)
- 17:45-18:10 **Isolation and cloning of dehydration-responsive element binding proteins (DREB) from *Triticum dicoccoides***
Emel Durmaz (SU, Tuzla, Turkey)
- 18:10-19:35 **Biological function analysis of genes involved in disease resistance via virus induced gene silencing in wheat, barley, and grass model organism; *Brachypodium distachyon***
Mahinur S. Akkaya (METU, Ankara, Turkey)
- 20:00-22:30 Congress dinner – Casino

Saturday, September 27

Session 9. Genomics for Agriculture Sustainability & Food Security

Chair: Pablo Vera

- 08:30-09:00 **QTL-based approaches to sustain the performance of cereal crops under conditions of abiotic constraints**
Roberto Tuberosa (University of Bologna, Italy)
- 09:00-09:30 **Leveraging plant genomics to improve a breeding program in maize**
Milena Ouzunova (KWS, Germany)
- 09:30-09:55 **Seed quality modifying treatments cause characteristic changes of gene expression profiles in sugar beet seeds (*Beta vulgaris* L.)**
Elena Pestsova (University of Dusseldorf, Germany)
- 09:55-10:20 **Induced mutations: a shortcut from candidate gene mapping to cloning in rice**
Qingyao Shu (Zhejiang University, China)
- 10:20-10:50 Poster viewing & Coffee break

Session 10. Epigenetics, Small RNAs and Chromatine Structure

Co-Chairs: Aliko Kapazoglu & Ivan Minkov

- 10:50-11:20 **Chromatin modifiers in the epigenetic regulation of barley seed development** Aliko Kapazoglu (INA, Tessoniki, Greece)
- 11:20-11:50 **Dedifferentiation-associated promoter hypermethylation and gene repression in *Arabidopsis***
María Berdasco (Oviedo University, Spain)
- 11:50-12:15 **Genetic and epigenetic stability in somatic embryogenesis of *Pinus pinaster***
Liliana Marum (IBET/ITQB, Oeiras, Portugal)
- 12:15-12:40 **Rapid changes in the repertoire of transcripts for DNA-binding proteins in chickpea roots and nodules suggest drastic genome wide chromatin remodelling upon stress: stress chromatin?**
Peter Winter (GenXPro GmbH, Frankfurt, Germany)

- 12:40-13:05 **DNA methylation and endonucleases dependent on S-adenosyl-L-methionine and sensitive to DNA methylation status in plants**
Boris F. Vanyushin (Moscow State University, Russia)
- 13:05-14:00 Poster viewing & Lunch in “Essentials” restaurant

Session 11.
Nutrition and Health Related Plant Genomics

Co-Chairs: Paul Christou & Ivelin Rizov

- 14:00-14:30 **Combinatorial genetic transformation and the generation of plant mutant libraries for metabolic engineering**
Paul Christou (University of Lleida, Spain)
- 14:30-14:55 **Molecular cloning of fructan biosynthetic genes from yacon (*Smallanthus sonchifolius*) and its expression in transgenic plants**
Hiroyuki Anzai (Ibaraki University, Japan)
- 14:55-15:20 **Polyamine and fruit crops: growth, development and stress response**
Ji-Hong Liu (Huazhong Agricultural University, Wuhan, China)
- 15:20-15:50 Poster viewing & Coffee break

Session 12.
Genomics for biosafety in plant biotechnology

Co-Chairs: Kristina Gruden & Nevena Alexandrova

- 15:50-16:20 **Scientific and technical support for the implementation of EU GMO policies**
Guy Van den Eede (Joint Research Centre, EC)
- 16:20-16:50 **Biological containment strategies for transgenic plants**
Ruud de Maagd (WUR, Wageningen, The Netherlands)
- 16:50-17:15 **GMO traceability in view of expanding GMO market**
Kristina Gruden (NIB, Slovenia)
- 17:15-17:40 **Cisgenic barley for animal feed**
Inger Holme (University of Aarhus, Denmark)

Closing Session:
Flamingo Grand Hall

Co-Chairs: Atanas Atanassov, Ivan Minkov & Nikolai Christov

- 17:40-18:10 Closing Keynote lecture:
Using genetics and genomics to bridge the gap between phenotype and genotype in a crop plant
Richard Visser (Centre for BioSystems Genomics, Wageningen, The Netherlands)
- 18:10-18:25 Introduction of the 8-th Plant GEM Venue
- 18:25-18:35 Closing Ceremony