

4th PlantEd Conference

Porto, Portugal – September 18-20, 2023

Monday 18 Sept		Session Chair: Dennis Eriksson
	09:00-09:30	Welcome Local Organizer – Isabel Mafra ; REQUIMTE- LAQV, Faculty of Pharmacy, University of Porto/Portugal Welcome Executive Board of Faculty – Marcela Segundo ; Faculty of Pharmacy, University of Porto/Portugal Welcome COST Action Chair – Dennis Eriksson ; Swedish University of Agricultural Sciences/Sweden
Session I – GE applications and molecular mechanisms	09:30-10:00	Keynote: Dirk Bosch and Katarina Cankar ; Wageningen University/The Netherlands <i>Genome editing to improve health benefits of root chicory</i>
	10:00-10:20	Justyna Boniecka , Department of Genetics, Nicolaus Copernicus University in Toruń/Poland <i>CRISPR/Cas9-directed editing of RelA/SpoT Homologs in tomato (Solanum lycopersicum L.)</i>
	10:20-10:40	Zoe Hilioti , Institute of Applied Biosciences/CERTH/Greece <i>Tomato breeding by design using non-transgenic genome editing</i>
	10:40-11:20	Coffee break and poster session
	11:20-11:40	Daria Navrotska , Institute of Molecular Biology and Genetics of the National Academy of Sciences of Ukraine/Ukraine <i>Brachypodium distachyon DOF transcription factor gene analysis and genome editing</i>
	11:40-12:00	Tjaša Lukan , Department of Biotechnology and Systems Biology, National Institute of Biology/Slovenia <i>CRISPR/Cas9-mediated miRNA editing in tetraploid potato</i>
	12:00-12:20	Yordan Dolaptchiev , The Sainsbury Laboratory/United Kingdom <i>Efficient targeted gene insertions in diploid potatoes</i>
	12:20-12:40	Katrijn Van Laere , ILVO - Plant Sciences Unit/Belgium <i>CRISPR-based visualisation of centromere sequences in chicory</i>
	12:40-13:50	Lunch
Monday 18 Sept		Session Chair: Isabel Mafra
Session II – Improving resistance to abiotic stress	13:50-14:20	Keynote: Sílvia Coimbra ; Faculty of Sciences, University of Porto/Portugal <i>CRISPRit - Bridging fundamental knowledge and novel technology to increase rice heat tolerance</i>
	14:20-14:40	Cecilia Sarmiento , Tallinn University of Technology/Estonia <i>Optimized Lolium perenne L. protoplasts isolation and transformation for CRISPR-Cas9 downstream applications</i>
	14:40-15:00	Muneeb Hassan Hashmi , University of Siegen, Siegen/Germany <i>Establishment of highly efficient and reproducible Agrobacterium-mediated transformation system for tomato (Solanum lycopersicum L.)</i>
	15:00-15:20	Luca Nerva , CREA - Research Centre for Viticulture and Enology/Italy <i>Improving grape resilience to climate change exploiting the CRISPR/Cas technology: different approaches to face drought</i>
	15:20-16:00	Coffee break and poster session
	16:00-17:30	PlantEd Working Group meeting (WG1-WG5 together)
		Evening to explore Porto

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Tuesday 19 Sept		Session Chair: Götz Hensel
Session III – Improved technologies	09:00-09:30	Keynote: Anouchka Guyon ; INRAE/France <i>CRISPR/Cas system and the “split” base editing strategy</i>
	09:30-09:50	Hilal Betul Kaya , Manisa Celal Bayar University/Turkey <i>Optimizing protoplast isolation and transformation efficiency for enhanced plant genome editing in grapevine</i>
	09:50-10:10	William de Martines , Wageningen University and Research/The Netherlands <i>Exploring alternative approaches for efficient gene targeting in plants: high fidelity nonhomologous end-joining with CRISPR-Cas12a in potato protoplasts</i>
	10:10-10:30	Angelo Ciacciulli , CREA OFA Acireale/Italy <i>New genomic techniques in citrus, step-by-step solutions for more efficient and successful procedures</i>
	10:30-11:10	Coffee break and poster session
Session IV -Nutritional improvement and characterisation	11:10-11:40	Keynote: Nélida Leiva Eriksson ; University of Lund/Sweden <i>Nutritional enrichment of sweetpotato with highly bioavailable iron</i>
	11:40-12:00	Ellen Slaman , VIB-Ugent/Belgium <i>In-depth characterization of Cas9 specificity in tomato using high-throughput amplicon sequencing, GUIDE-seq and whole genome resequencing</i>
	12:00-12:20	Concetta Licciardello , CREA/Italy <i>A dual single-guide RNA approach used to edit the b-cyclase 2 gene in anthocyanin-rich sweet orange varieties</i>
	12:20-12:40	Fabio D'Orso , Research Centre for Genomics and Bioinformatics/Italy <i>HQT gene editing to study chlorogenic acid metabolism and its physiological role in tomato</i>
	12:40-13:50	Lunch
Tuesday 19 Sept		Session Chair: Vladislava Galovic
Session V – Improving resistance to biotic factors	13:50-14:20	Keynote: Johan Hunziker ; INRAE/France <i>Gene editing in potato to enhance PVY resistance</i>
	14:20-14:40	Éva Csaba , ELKH Centre for Agricultural Research/Hungary <i>Studying potato resistance and susceptibility factors against pathogens with the use of genome editing</i>
	14:40-15:00	Senne Van den Broeck , KU Leuven/Belgium <i>Gene editing in triploid banana cultivars</i>
	15:00-15:20	Kim Hebelstrup , Department of Agroecology, Aarhus University/Denmark <i>De novo domestication of wild tuber-bearing Solanum species</i>
	15:20-16:00	Coffee break and poster session
	16:00-17:30	Management Committee meeting
	19:30	Social dinner

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Tuesday 20 Sept		Session Chair: Katrijn Van Laere
	09:00-09:30	Keynote: Elke Vereecke ; EV ILVO/Belgium <i>Gene editing in microalgae to increase the production of industrially valuable compounds</i>
Session VI – Regulation and public perception	09:30-09:50	Juan Vives-Vallés , University of the Balearic Islands - INAGEA/Spain <i>Preliminary analysis of the European Commission Proposal for a Regulation on the production and marketing of plant reproductive material</i>
	09:50-10:10	Tomasz Zimny , Institute of Law Studies, Polish Academy of Sciences/Poland <i>The new NGT legislation proposal of the European Union. Analysis of selected EU and national regulatory obstacles for the introduction and market viability of NGT plant products</i>
	10:10-10:30	Anna Linkiewicz , Cardinal Wyszyński University in Warsaw/Poland <i>The awareness of the Polish society on new genomic techniques</i>
	10:30-11:00	Coffee break and poster session
	11:00-11:15	Agnés Ricroch ; AgroParisTech and University of Paris Saclay/France <i>“Roadmap for Plant Genome Editing” – a Springer book production from PlantEd</i>
Session VII - STSM	11:15-11:30	Vladislava Galovic ; University of Novi Sad, Institute of Lowland Forestry and Environment/Serbia <i>Overview on the 4-year STSM activities</i>
	11:30-11:45	Alvaro Valenzuela , Fondazione Edmund Mach/Italy <i>Leveraging system biology and new breeding technologies for water stress tolerance in grapevines</i>
	11:45-12:00	Karam Mostafa , Agriculture Research Center, Egypt and Ondukuz Mayıs University/Turkey <i>Application of multiplexed CRISPR-ACT3.0 gene activation system in tomato roots for enhancing resistance against plant-parasitic nematodes</i>
	12:00-12:15	Kubilay Yıldırım , Ondokuz Mayıs University, Department of Molecular Biology and Genetics, Samsun/Turkey <i>Development of resistant sunflower lines to broomrape using crispr-cas9</i>
	12:15-12:30	Sara Yasemin , Siirt University/Turkey <i>Exploring the role of snrk2 genes in salinity stress response of Petunia axillaris through CRISPR-based genome editing</i>
	12:30-12:45	Poster prizes
	12:45-13:00	Closing of conference