

Program

Sunday, 2nd June 2013

14.30 – 18.00 Registration (Department of Life Sciences, near the Botanic Garden) – Coffee and refreshments.

Monday, 3rd June 2013

08.30 – 08.45 Registration (Congress venue)

09.00 – 09.25 Opening session

09.30 – 10.15 Plenary lecture 1

Stress – the single most important determinant of plant cell totipotency **Arie Altman** - Hebrew University of Jerusalem, Israel.

10.15 – 10.45 *COFFEE BREAK, POSTERS*

Session 1 – Micropropagation, rooting and acclimatation (part 1)

Chairman: Arie Altman

10.45 Plant abiotic stress tolerance analysis in cauliflower using a curd micropropagation system - Hail Rihan. (O1)

11.00 In vitro multiplication of *Centranthus ruber*, *Phagnalon saxatile* and *Umbilicus rupestris* species with potential for the phytoremediation of tailings of different metal ore mines – António Freitas. (O2)

11.15 Improvement and assessment of a micropropagation protocol for walnut hybrid (*Juglans major* var. 209 (Torrey) Heller x *J. regia* L.). Ricardo Moreno. (O3)

11.30 Evaluation of a new vessel system for micropropagation based on temporary immersion system (TIS) and applied physiology. Margareta Welander. (O4)

11.45 Efficient plant regeneration via shoot organogenesis from explants of in vitro seedlings of a recalcitrant woody species of Teak (*Tectona grandis* L.f.). Faheem Aftab. (O5)

12.00 Micropropagation of *Castanea* spp. hybrid clones to test the resistance to pathogenic Fungi. Filomena Gomes. (O6)

12.15 – 14.00 *LUNCH, POSTERS*

14.00 – 14.45 Plenary lecture 2

New perspective in commercial micropropagation of fruit trees and rootstocks Maurizio Lambardi - CNR-IVALSA, Trees and Timber Institute, Sesto Fiorentino (FI), Italy.

Session 2 – Micropropagation, rooting and acclimatation (part 2)

Chairwoman: Aylin Ozudogru

- 14.45 Plant In vitro establishment of tissues from selected trees of *Gomortega keule*. Diego Munoz-Concha. (O7)
- 15.00 In vitro propagation and rooting of pear cultivars. Jiri Sedlak. (O8)
- 15.15 Micropropagation of endangered Azorean endemic woody plants as a tool for ecorestoration programs. Duarte Mendonça. (O9)
- 15.30 In vitro propagation of the protected species of *Ramonda serbica* and *Ramonda nathaliae* from different populations of Kosovo and Macedonia. Bekim Gash. (O10)
- 15.45 The role of Salicylic acid in acclimatization of in vitro grown *Arabidopsis thaliana* after transfer to the soil. Anna Czerednik. (O11)

16.00 – 16.30 COFFEE BREAK, POSTERS

Session 3 – Micropropagation, rooting and acclimatation (part 3)

Chairwoman: Sandra Correia

- 16.30 Study on tissue culture and clonal propagation of tiger lily (*Lilium lacifolium* Thunb.). Yun Wu. (O12)
- 16.45 Biochemical changes during ex vitro acclimatization of micropropagated *Cotinus coggygia* plantlets. Ewelina Jacygrad. (O13)
- 17.00 Micropropagation of *Calendula officinalis* and *Lavandula angustifolia* for genotoxicity and antigenotoxicity studies. Fernanda Leal. (O14)
- 17.15 Effects of carbohydrate source and BAP concentration on in vitro morphogenesis of four Rose genotypes. Hamama Latifa. (O15)
- 17.30 Clonal propagation of Bay Tree (*Laurus nobilis* L.) using cuttings. Salih Parlak. (O16)

18.00 – 19.30 DRINKS, POSTERS AND TALKS (not necessarily by this order)

09.00 – 09.45 Plenary lecture 3

Breeding for the conifer tree improvement capitalizing on a biochemical tool, somatic embryogenesis Krystyna Kimaszewska
– Natural Resources Canada, Canadian Forest Service, Quebec, Canada.

Session 4 – Somatic embryogenesis (part 1)

Chairwoman: Krystyna Klimaszewska

09.45 Impact of immature fruit size and genotype on direct caullogenesis in monoembryonic-seed Mango. Adel Abul-Soad. (O17)

10.00 Exploring AOX genes as functional markers for the efficient realization of totipotency via somatic embryogenesis in *Daucus*. António Frederico. (O18)

10.15 Chemical and physical changes in the environment of *Pinus radiata* embryogenic tissue initiation: implications in the somatic plantlet development. Olatz García. (O19)

10.30 – 11.00 COFFEE BREAK, POSTERS

Session 5 – Somatic embryogenesis (part 2)

Chairman: Jorge Canhoto

11.00 Somatic embryogenesis of Norway spruce - key for epigenetic study. YeonKyeong Lee. (O20)

11.15 Enhancing shoot recovery from transgenic avocado somatic embryos. Fernando Pliego. (O21)

11.30 Somatic embryogenesis and growth regulation of acclimatized plantlets by paclobutrazol in yellow poplar (*Liriodendron tulipifera*). Yong Wook Kim. (O22)

11.45 Callus Induction Using Maize Embryos for *Agrobacterium Tumefaciens* – Mediate Transformation. Ayman Almerai. (O23)

12.00 Biotechnology of tamarillo (*Cyphomandra betacea*): from in vitro cloning to genetic. Sandra Correia. (O24)

12.15 Comparative proteomic analysis of off-types somatic plantlets development of Feijoa (*Acca sellowiana* (O. Berg) Burret). Miguel Guerra. (O25)

12.30 – 14.00 LUNCH, POSTERS

14.00 – 14.45 Plenary lecture 4

Pollen embryogenesis and haploid technology in barley Jochen Kumlehn - Leibniz Institute of Plant Genetics and Crop Plant Research, IPK, Gatersleben, Germany.

Session 6 – Haploids and plant breeding (part 1)

Chairman: Jochem Kumlehn

14.45 Regeneration of callus and shoots from ovules and ovaries of chrysanthemum in vitro. Natalia Miler (O26)

15.00 Genotype and environmental resistance to brown heart incidence in swede (*Brassica napus* var. *napobrassica*) parent lines and F1 hybrids. Faiz Fadhel. (O27)

15.15 Early in vitro development of isolated microspores of four Sicilian olive cultivars. Maria Antonietta Germanà. (O28)

15.30 Stimulation of androgenic embryogenesis in *Lolium perenne* L. by combining activated carbon with plant growth regulators. Aktham Abu Khadijeh. (O29)

15.45 Fragmentation and asymmetric fusion of Cichorium protoplasts. Tom Eeckhaut. (O30)

16.00 – 16.30 COFFEE BREAK, POSTERS

Session 7 – Haploids and plant breeding (part 2)

Chairman: Augusto Peixe

16.30 Establishment of haploid calli from unfertilized ovaries of Tea (*Camellia sinensis* (L.) O. Kuntze) as potential source of valued secondary metabolites. Rakhi Chatuverdi (O31)

16.45 Clones among androgenic regenerants of hexaploid triticale. Sylwia Oleszczuk. (O32)

- 17.00 Micronucleation by mitosis inhibitors in developing *Spathiphyllum wallisii* Regel microspores for microprotoplast preparation. Prabhu Shankar Lakshmanan. (O33)
- 17.15 Callus produced from in vitro culture of anthers of *Actinidia chinensis*. Jinhu Wu. (O34)
- 17.30 Ovule culture and embryo rescue for interspecific hybridisation in blueberry (*Vaccinium* spp.). Ranjith Pathirana. (O35)
- 18.00 – 19.00 *Meeting of the ISHS*
- 20.00 – 22.30 *Dinner and traditional music of Coimbra students*

Wednesday, 5th June 2013

- 09.00 – 09.45 Plenary lecture 5

Insights into seasonal cold acclimation and ecodormancy break in a fruit tree species - almond Margarida Oliveira – Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa, Oeiras, Portugal.

Session 8 – Genetic transformation and molecular breeding (part 1)

Chairwoman: Margarida Oliveira

- 09.45 Stable integration and expression of Thaumatin II Gene in transgenic carrot to enhance the resistance against *Fusarium avenaceum*. Tatiana Sidorova (O36)
- 10.00 Mutation induction of *Anthurium andreanum* using gamma radiation. Potjamarn Suraninpong. (O37)
- 10.15 Genetic transformation of sour orange (*Citrus aurantium*) with a gene construct containing a conserved sequence of Citrus Tristeza Virus (CTV). Francisco Mourão Filho. (O38)
- 10.30 – 11.00 *COFFEE BREAK, POSTERS*

Session 9 – Genetic transformation and molecular breeding (part 2)

Chairman: Qiao-Chun Wang

- 11.00 Improving a fast track breeding system based on transgenic early flowering plants in Apple. Henryk Flachowsky. (O39)
- 11.15 BAGY2 Retrotransposon variations in barley calli cultures and regenerated plantlets. Nermin Gozukirmizi. (O40)
- 11.30 Study on somaclonal variability of some Romanian grape cultivars. Doru Pamfil. (O41)
- 11.45 Towards the Genetic Engineering of Eucalyptus grandis. Susana Araújo. (O42)
- 12.00 Starch metabolic genes screening in bulbs of Lycoris sprengeri and gene expression during bulb development. Le Chang. (O43)
- 12.15 – 14.00 *LUNCH, POSTERS*
- 14.00 – 14.45 Plenary lecture 6

Can cryobiotechnology help ensure food security required by rapidly increasing population of the world? Qiao-Chun Wang - Key Laboratory of Genetic Imp. of Hort. Plants of Northwest China, Northwest A&F University, Yangling 712100, Shaanxi, China

Session 10 – Cryopreservation and other conservation approaches

Chairman: Maurizio Lambardi

- 14.45 In vitro propagation, conservation and cryopreservation of fig (*Ficus carica* L.). Aylin Ozudogru. (O44)
- 15.00 Development of cost-effective in vitro multiplication and conservation techniques of ornamental plants (*Nandina domestica*, *Carex oshimensis*) for the benefits of commercial nurseries. Pedrosa Correa da Silva. (O45)

- 15.15 Clonal propagation, medium-Term conservation and antimicrobial activity of *Ruta graveolens*: a medicinal plant. Mohamad Shatnawi. (O46)
- 15.30 In vitro conservation of *Cyrtopodium saintlegerianum* Rchb. f. (Orchidaceae) by slow growth with high sucrose concentration. Fernanda Fernandes. (O47)
- 15.45 In vitro culture establishment of several genotypes of *Mentha aquatica* and cryopreservation of shoot apices. Carmen Martín (O48)
- 16.00 Relationship between oxidative stress and genetic stability in an encapsulationdehydratiocryopreservation protocol of mint apices. Maria González-Benito (O49)
- 16.15 – 18.15 *Visit to the old part of the University of Coimbra*
- 20.00 – 22.30 *Symposium dinner and Fado show at the Palace Hotel (Curia, North of Coimbra)*

Thursday, 6th June 2013

- 09.00 – 09.45 Plenary lecture 7

Plant tissue culture and secondary metabolite production

Cristina Figueiredo – Universidade de Lisboa, Fac. de Ciências de Lisboa, Dep. de Biologia Vegetal, IBB, Centro de Biotecnologia Vegetal, Lisboa, Portugal.

Session 11 – Chemistry and plant tissue culture (part 1)

Chairwoman: Cristina Figueiredo

- 09.45 Phenyl-adenine, an alternative cytokinin with a promising tissue culture future. Hans Motte (O50)
- 10.00 Changes of growth parameters and ions accumulation in date palm (*Phoenix dactylifera* L.) cell suspension exposed to polyethylene glycol-induced drought stress. Jameel Al-Khayri. (O51)
- 10.15 A chemical approach to improve adventitious root induction. Inge Verstraeten. (O52)
- 10.30 – 11.00 *COFFEE BREAK, POSTERS*

11.00 – 11.45 Plenary lecture 8

Chemical and genetic modulation of adventitious root induction **Danny Geelen** - Ghent University, Department of Plant Production, Belgium.

Session 12 – Chemistry and plant tissue culture (part 2)

Chairman: Danny Geelen

11.45 A comparative study of phenolic content, sugar composition and antioxidant activity of aqueous extracts of micropropagated shoots and wild plants of *Pterospartum tridentatum* (L.) Willk. Maria Teresa Coelho (O53)

12.00 New cytokinin derivatives – their discovery, development and use for micropropagation of selected tree species. Karel Dolezal (O54)

12.15 Effects of elicitors on in vitro cultures of *Sauropus androgynus* (sweet shoot) for sustainable metabolite production and antioxidant capacity improvement. Wee Sin Ling. (O55)

12.30 – 14.00 LUNCH

14.00 – 14.45 11.00 – 11.45 Plenary lecture 9

Future perspectives of in vitro culture and plant breeding **Renate Müller** - University of Copenhagen, Faculty of Science, Plant and Environmental Sciences, Taastrup, Denmark.

14.45 – 15.15 Closing session

Friday, 7th June 2013

Technical tour to a fruit producing company and to a cork company

09.00 Departure

17.30 Return to Coimbra