

PROGRAM

Sunday, 17 August, 2014

Faculty of Biology, Adam Mickiewicz University, Poznan

17:00	Registration and poster set-up
19:00	Welcome party Hall of Faculty Building

Monday, 18 August, 2014

8:00 - 9:00	Registration Desk opens	
9:00-9:10	Opening Ceremony (Auditorium) Welcome words by Dean of Faculty Biology, Professor Bogdan Jackowiak	
9:10-10:00	Przemysław Wojtaszek (Poland)	Professor Alina Kacperska and her Research on Plant Cold Hardiness in 1966 - 2008 (Jubilee)
SESSION 1. Adaptations to freezing temperatures (This session is dedicated to Professor Alina Kacperska)		
Chair: Karen K. Tanino (<i>University Saskatchewan, Canada</i>) and Przemysław Wojtaszek (<i>Adam Mickiewicz University, Poznań, Poland</i>)		

Invited speaker:

10:00-10:45 Karen K. Tanino Linking Structure to Function: cellular cold adaptation mechanisms

10:45-11:05 *Coffee break*

Invited speaker:

11:05-11:50 Seizo Fujikawa Adaptational processes of plant cells to freezing
(Japan)

Oral presentations

11:50-12:10 Armando Lenz - Acclimation and adaptation of freezing resistance in
(Switzerland) European beech

12:10-12:30 Majid Dashti - Effects of freezing stress on morpho-physiological
(Iran) indices and chlorophyll fluorescence of *Salvia lerifolia*
benth seedlings

12:30-12:50 Tarja Lehto - Freezing tolerance of ectomycorrhizas and
(Finland) ectomycorrhizal fungi

13:00-14:30 **Lunch**

Invited speaker

14:30-15:15 Jiwan Palta Progress in building a successful strategy for
(USA) breeding frost tolerant potatoes for the Andean
Highlands: Preparing for climate change

SESSION 2. Physiological and molecular aspects of freezing tolerance

Chair: Rajeev Arora (*Iowa State University, USA*)
and **Annette Nassuth** (*University of Guelph, Guelph, Ontario, Canada*)

15:15-16:00	Invited speaker: Rajeev Arora	Physiological studies of recovery from freeze-thaw injury (This lecture is sponsored by MPW MED. Instrum.)
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Oral presentations

16:00-16:20	Majken Pagter - (Germany)	Global changes in gene expression, assayed by microarray hybridization and quantitative RT-PCR, during sub-zero acclimation of three <i>Arabidopsis thaliana</i> accessions
16:20 - 16:40	Daisuke Takahashi - (Japan)	A cold acclimation-responsive glycosyl phosphatidylinositol-anchored protein (GPI-AP) influences the acquisition of freezing tolerance in <i>Arabidopsis</i>
16:40 - 17:00	Coffee break	
17:00 - 17:20	Sylvia Bolt - (Germany)	<i>CIE</i> is a novel transcription factor of <i>Arabidopsis thaliana</i> required for cold acclimation
17:20 - 17:40	Michał Rurek - (Poland)	Temperature recovery modulates cauliflower mitochondrial biogenesis at multiple steps

17:40 -19:00 Poster session

Monday, 18 August, 2014, Workshop (Oval aula)

18:00 - 20:00

Tuesday, 19 August, 2014

SESSION 2. Physiological and molecular aspects of freezing tolerance (continued)

Chair: Rajeev Arora (*Iowa State University, USA*)
and **Dirk K. Hincha** (*Max-Planck-Inst. of Molecular Plant Physiology, Potsdam, Germany*)

Invited speaker:

9:00 - 9:45	Matsuo Uemura (Japan)	<i>In planta</i> monitoring of the regulation of cold-responsive genes under various temperatures and photoperiods
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Oral presentations

9:45-10:15	Annick Bertrand - A proteome analysis of subfreezing temperatures tolerance in red clover (<i>Trifolium pratense</i>) (Canada)
10:15-10:35	Pavel Vitámvás - Crop proteome changes under abiotic stresses (Czech Rep.)
10:35-10:55	Klára Kosova - Proteome analysis of cold response in spring and winter wheat (<i>Triticum aestivum</i>) crowns reveals similarities in stress adaptation and differences in regulatory processes between the growth habits (Czech Rep.)
10:55-11:10	<i>Coffee break</i>

SESSION 3. Genetic aspects of resistance to low temperatures

Chair: Matsuo Uemura (*Iwate University, Japan*)
and **Andrzej Jerzmanowski** (*Warsaw University, Poland*)

Invited speaker:

11:10-11:55	Dirk K. Hincha (Germany)	The molecular basis of natural genetic variation in the freezing tolerance of <i>Arabidopsis thaliana</i>
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Invited speaker:

11:55-12:40	Andrzej Jerzmanowski	Chromatin, epigenetics and plant adaptation to stress
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Oral presentation

12:40-13:00	Tatsiana Espevig - (Norway)	Dehardening resistance and rehardening capacities of six turfgrasses used on golf greens
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13:00 -14:30 Lunch

Oral presentation

14:30-14:50	Szymon Świeżewski - (Poland)	Spliceosome disassembly factor NTR1 is involved in transcriptional pausing at alternative exons in <i>Arabidopsis</i>
14:50-15:10	Ellen Zuther - (Germany)	Deacclimation in <i>Arabidopsis thaliana</i> accessions and memory of low temperature priming under warm conditions
15:10-15:30	Andrzej Wojciechowski - (Poland)	<i>Brassica</i> phytoplasma caused by temperature and drought stress
15:30-15:50	Wendy Waalen - (Norway)	Winter survival of winter rapeseed and winter turnip rapeseed in field trials, as explained by PPLS regression

17:00	City tour (Cathedral and Old Market Square)
20:00-21:00	Concert (Town Hall, Great Hall)

Wednesday, 20 August, 2014

SESSION 4. Biophysical aspects of freezing

Chair: Gilbert Neuner (*University of Innsbruck, Austria*)
and Masaya Ishikawa (*National Institute of Agrobiological Sciences, Tsukuba, Japan*)

Invited speaker:

9:00-9:45 Gilbert Neuner Freezing avoidance and ice barriers in plants

9:45-10:30	Invited speaker:	Ice nucleation activity in plants: from the survey to isolation, identification, characterization of responsible substances
	Masaya Ishikawa	

10:30-10:50 *Coffee break*

Oral presentation:

10:50 - 11:10 Elias Anastassopoulos - Ice nucleation activity in grapes
(Greece)

SESSION 5. Climate change and radiation frosts

Chair: Fulai Liu (*China Agricultural University, Beijing, China and University of Copenhagen, Denmark*)
and Edward Żurawicz (*Research institute of Horticulture, Skierniewice, Poland*)

Invited speaker:

11:10 - 11:55 Fulai Liu Warm winter reduces tolerance of winter wheat to late spring freeze stress - a case study in Eastern China

11:55 - 12:40	Invited speaker:	Differences between wheat cultivars for spring-freeze tolerance
	David Livingston III	

12:40-14:10 **Lunch**

14:10-14:55	Invited speaker:	Regulatory role of photosynthesis and non-photochemical quenching in plant acclimation to chilling or freezing temperatures and high light stress
	Stanisław Karpiński (Poland)	

Oral presentations

14:55-15:20 Annette Nassuth - Relating freezing tolerance and stomatal development in grape
(Canada)

15:20-15:40	Stanisław <i>Pluta</i> - (Poland)	Damage of black, white and red currant flowers and fruit sets by spring frosts in central Poland in 2014
15:40-16:30	<i>Poster viewing and Coffee</i>	
19:00-23:00	Conference Dinner (Raczyński Palace, Obrzycko)	

Thursday, 21 August, 2014

SESSION 6. Cryopreservation and survival in frozen state		
<i>Chair: Jan J. Rybczyński</i> (Botanical Garden PAS, Warsaw, Poland), and <i>Jiri Zamecnik</i> (Crop Research Institute, Prague, Czech Rep.)		
Invited speaker:		
9:00-9:45	Jan. J. Rybczyński	Up and down regulated proteins of <i>Gentiana cruciata</i> embryogenic cell suspension in adaptation to high concentrations of sucrose in cryoprotocol
Oral presentations		
9:45 - 10:05	Terezia Salaj - (Slovak Rep.)	Cryopreservation of conifer embryogenic tissues
10:05 -10:25	Teresa Hazubska -Przybył (Poland)	Successful cryopreservation of embryogenic tissues of spruce (<i>Picea</i> spp.) by using the rapid-freezing method
10:25 - 10:50	<i>Coffee break</i>	
10:50 - 11:10	Jiří Zamecnik - scanning	Thermal parameters measured by differential calorimeter useful for plant cryopreservation improvement
11:10-12:15	<i>Poster viewing</i>	
12:15-13:45	Lunch	
13:45-14:15	Poster prizes ceremony and presentation of student awards	
14:15-16:00	SESSION 7. Panel Discussion Cold Hardiness Research: The Next Twenty Years	
	<i>Moderators:</i> R. Arora, D.K. Hinch, M. Ishikawa, A. Kacperska, D. Livingston III, G. Neuner, P.M. Pukacki, K.K. Tanino, M. Uemura	
16:00	Closing of Conference and departure	

