

Dear Colleagues,

The Scientific Committee of the **10th International Plant Cold Hardiness Seminar (10th IPCHS)** is pleased to invite you to join this discussion on the theoretical and practical aspects of scientific developments in plant cold hardiness research.

The 10th edition of the Seminar will be hosted in Poznań by the Polish Academy of Sciences (Institute of Dendrology Kórnik, Poland) and Adam Mickiewicz University (Faculty of Biology Poznań, Poland). It follows the successful meetings organized in St. Paul, USA (1977); Sapporo, Japan (1981); Shanghai, China (1986); Uppsala, Sweden (1991); Corvallis, USA (1996); Helsinki, Finland (2001); Sapporo, Japan (2004); Saskatoon, Canada (2007); and Luxembourg, Luxembourg (2011). Since 1977 we have witnessed the development of new technologies in the field of molecular biology, genomics, proteomics, and metabolomics. The developments have impacted our understanding of plant cold hardiness. We are now beginning to understand how plants perceive cold signals, as well as the patterns of freezing in plants, low and ultra-low temperature tolerance. Genes involved in cold acclimation have been identified and the mechanisms controlling expression of these "cold-regulated" genes have been studied. Improvement of the cold hardiness of plants by gene transfer has also been achieved. All these advances have provided an opportunity to re-explore and explain better the physiology of cold tolerance, avoidance, and acclimation in plants. At the 10th IPCHS, you will have an opportunity to present your recent research on various aspects of cold hardiness and meet colleagues to discuss recent advances. The seminar will include invited lectures, selected oral presentations, and poster sessions.

Six plenary sessions will be organized, expecting to cover the entire spectrum of current cold hardiness research:

- ▶ **Session 1: Adaptations to freezing temperatures**
- ▶ **Session 2: Physiological and molecular aspects of freezing tolerance**
- ▶ **Session 3: Genetic aspects of resistance to low temperatures**
- ▶ **Session 4: Biophysical aspects of freezing**
- ▶ **Session 5: Climate change and radiation frosts**
- ▶ **Session 6: Cryopreservation and survival in frozen state**

Apart from a number of invited speakers, the Scientific Committee will select a number of abstracts to grant their authors an opportunity to present results as oral presentations. The seminar will be held at the Faculty of Biology of Adam Mickiewicz University in Poznań (Umultowska Street 89, Morasko Campus, Paczoski Hall, <http://www.biologia.amu.pl>).

In the week before the Seminar, the Faculty of Biology of Adam Mickiewicz University will be open for a **Plant Biophysical and Molecular Stress Course**. Young scientists, with experience in the various analytical and technical tools currently used in plant cold hardiness research, will provide invaluable insights into their potential but also the problems related to their use.

The city of Poznań is easily reached by plane or train. **Those interested in joining the Seminar are invited to visit our website:** <http://www.ipchs2014poznan.org>. More information will be also provided in circulars in the coming months. Besides, you can contact the local organizers by e-mail (ipchs2014@gmail.com).

Hoping to meet you in Poznań,
International Scientific Committee

Chairs:

- Professor Paweł M. Pukacki, **Institute of Dendrology, Polish Academy of Sciences**, Kórnik, ppukacki@man.poznan.pl
- Professor Przemysław Wojtaszek, **Faculty of Biology, Adam Mickiewicz University**, Poznań, przemow@amu.edu.pl



First circular



10th International Plant Cold Hardiness Seminar

“Stress Recognition Triggers Plant Adaptation”

17–21 August 2014

Institute of Dendrology, Polish Academy of Sciences, Kórnik, Poland
&
Faculty of Biology, Adam Mickiewicz University, Poznań, Poland



& Plant Biophysical and Molecular Stress Course

13–16 August 2014

Faculty of Biology, Adam Mickiewicz University, Poznań, Poland

On behalf of the Organizing Committee

Website: <http://www.ipchs2014poznan.org>

Pawel Pukacki

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Chair of 10th IPCHS

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