

Preface

Allow me to introduce the selected papers, abstracts of lectures, and oral and poster presentations from the XIVth Polish In vitro Culture and Plant Biotechnology Conference, held at the BioCenter of the Poznan University of Life Sciences 14-17th September 2015 in Poznań, entitled: *Structural, physiological and molecular bases of plant differentiation*.

The program of the Conference includes research presented in 115 abstracts in the following sections: plenary lectures – 9, oral presentations – 30 and poster presentations – 76 within the overall framework of four sessions: 1) *Plant differentiation processes in the culture of somatic cells and cells of the generative pathway*, 2) *Physiological and molecular conditions of plant cell response in the processes of morphogenesis*, 3) *Plant cells under stress conditions* and 4) *Exploitation of organ and cell cultures in basic and applied studies*.

The three years since our last meeting (2012) have seen the growth of the subject, with completely new plant species which are the model of our research. Generally, this conference is very similar to the last one, considering the fields of interest of Polish plant biotechnology laboratories. However, it is a shame that the development of plant transformation does not have the opportunity to follow other fields of plant tissue culture and plant biotechnology in our country.

Today is the second time that we have had the opportunity to use the pages of *BioTechnologia* to make our achievements more widely known, not only within our Society but to all readers of the Journal. The selected papers which met Editorial requirements present a broad spectrum of subjects, reflecting a variety of interests. The number of Polish papers presented to an international audience is constantly increasing, showing that we have better opportunities to realize our dreams in plant biotechnology using increasingly more sophisticated tools, including not only the latest technology, but also more expensive chemicals, which is possible thanks to financial support from the Polish Government. What is also noteworthy is that although the competition between our laboratories is tough, our publications have increasingly been gaining recognition on the international stage.

I do hope that this volume of the Journal will be of interest to young plant tissue “culturists” and plant genome “manipulators” who love to play with plant organs, tissues, cells, organelles and their genomes in the quiet of a laboratory where they may realize their own scientific dreams.

I wish to express my gratitude to all participants for the effort and care with which they have prepared their publications and abstracts. I extend my thanks to the reviewers, who have done a very good job of ensuring the scientific merit of each publication. I would like to thank the staff of the Journal and especially Dr. Paweł M. Stróżycki for his professional work. Last but not least, I wish to thank my closest co-workers Dr. Anna Mikuła and Dr. Karolina Tomiczak, the leading members of both Conference Committees, for their work on the organization of the conference.

Prof. dr hab. Jan J. Rybczyński