

Introduction

Faculty of Medicine, Masaryk University in Brno had the privilege to host the **91st Physiological Days** – the annual conference of the Czech and Slovak Physiology Societies – in February 2015. This meeting represents traditional possibility to meet and to discuss latest results in physiology and related subjects, such as pathological physiology, pharmacology, biochemistry, toxicology, etc. It is popular and well attended conference, with usually very good scientific as well as social program. Department of Physiology of Brno Faculty of Medicine organized this meeting in past already several times, last time in 2007. The 91st Physiological Days were for Brno, however, rather exceptional – for the first time they were held in new university campus in Brno – Bohunice.

The conference was held under the auspices of Dean of the Faculty of Medicine, Masaryk University of Brno, prof. MUDr. Jiří Mayer, CSc. After opening ceremony, two invited talks took place: the honorary Purkyně's lecture titled "*J. E. Purkyně and cerebellum then and now*" was presented by Doc. MUDr. František Vožeh, CSc. from the Department of Pathological Physiology, Faculty of Medicine, Charles University in Plzeň. Doc. Vožeh emphasized great contribution of J. E. Purkyně to description of structure and function(s) of cerebellum and pointed the fact that Purkyně was ahead of his time as the central nervous system research is concerned and that numerous of his conclusions are valid until now. The educational lecture titled "*Heart electrophysiology: from organ to cell and channels*" was presented by doc. MUDr. Markéta Bébarová, Ph.D. from the Department of Physiology, Faculty of Medicine, Masaryk University Brno. Doc. Bébarová focused in her presentation mostly on the patch clamp technique and on the pharmacological studies on ionic channels done in her laboratory.

Scientific program of the conference comprised 77 lectures and 59 posters, presented by 162 participants from both the Czech and Slovak Republic. Not only senior researchers, but also many young scientists, doctoral, and even pregraduate students took part in the meeting. Such situation makes us optimistic as the future of Czech and Slovak physiology is concerned.

Interesting results were presented in eight lecture sessions and four poster sessions, traditionally focused on neurophysiology, physiology of cardiovascular system, metabolism and newly – cellular physiology.

Physiological Research was established as a platform for articles that address the most important research topics in physiology. The purpose of this special issue is to give the active participants the opportunity to prepare the manuscripts with the presented results. We are very pleased to introduce this issue of the journal with original scientific articles that were selected by the evaluation committee for publication.

We owe many thanks to all contributors and the members of the Editorial Board (prof. MUDr. Jaroslav Pokorný, DrSc., doc. MUDr. Jakub Otáhal, PhD., MUDr. Vladimír Riljak, PhD. and prof. MUDr. Daniela Ostatníková, PhD.). High acknowledgement goes to Ing. Hynek Moravec for technical editing of all papers.

The 92nd Physiological Days are organized by the Faculty of Science of the University of South Bohemia in České Budějovice. We are looking forward to meeting the Czech and Slovak physiologists in February 2016 and we wish all of them successful conference and inspirational contributions.

Petr Babula
Head of the Organizing Committee
of the 91st Physiological Days