

## Introduction

The 92nd Physiological Days was held in České Budějovice, South Bohemia, in 2016. This conference represents a traditional meeting of Czech and Slovak human and animal physiologists – senior and young scientists, post-graduate and under-graduate students, and all enthusiasts of physiological research. This is an opportunity for mutual meetings, discussions, exchange of experiences and establishing co-operations. The meeting returned to České Budějovice after 15 years and was organized by the Department of Animal Physiology, Faculty of Science, University of South Bohemia. The conference was held under the auspices of the Rector of the University of South Bohemia, Prof. RNDr. Libor Grubhoffer, CSc., and Dean of the Faculty of Science, Prof. RNDr. František Vácha, Ph.D. After the opening ceremony, two invited talks took place: the honorary Purkyně's lecture entitled "Half-century of experimental hepatology in the Institute of Physiology, Faculty of Medicine in Hradec Králové, Charles University" was presented by Prof. MUDr. Zuzana Červinková, CSc. from the Institute mentioned in the lecture title. The methodological lecture entitled "Techniques of electron microscopy and image processing useful for physiologists" was presented by doc. RNDr. František Weyda, CSc. from the host Institution.

The scientific program of the conference consisted of ten lecture sections – Neurophysiology I, II

and III, Endocrinology and Metabolism I and II, Cardiovascular system I, II and III, Cellular physiology and Varia, and of two poster sessions. Altogether 65 lectures and 34 posters were presented by 125 participants from the Czech (73) and Slovak (52) Republics. Fifteen contributions have been selected by the evaluation committee for publication in this special issue of the *Physiological Research*. This journal was established as a platform for articles that address the most important research topics in physiology. The purpose of the special issue is to give the active participants the opportunity to prepare the manuscripts with the presented results.

We owe many thanks to all contributors and the members of the Editorial Board, high acknowledgement goes to Ing. Zdena Stádníková for technical editing of all papers.

The 93rd Physiological Days will be organized by the Faculty of Medicine, Pavol Jozef Šafárik University in Košice. We are looking forward to meeting the Czech and Slovak physiologists in January/February 2017, and wish all of them a successful conference and inspirational contributions.

Dalibor Kodrík  
Head of the Organizing Committee  
of the 92nd Physiological Days

## Guest Editors Introductory Words

The conference "Physiological Days" is a scientific and social highlight of the "physiological" year. Each year, this event displays the positive relations between Czech and Slovak Physiological Societies, demonstrates how broad the scientific interests of the research groups in our region are and last but not least allows visitors to enjoy a different city each year. In 2016 it was the South Bohemian University and České Budějovice which allowed us to meet and discuss our achievements and goals. A selection of the best-presented papers are offered in this Supplementum and guest editors (Prof. Jaroslav Pokorný, Prof. Dalibor Kodrík, Assoc. Prof. Jakub Otáhal and Dr. Vladimír Riljak) are

more than happy to share two review articles and thirteen original manuscripts with our readers. They cover a variety of fields from behavioral sciences, cardiovascular physiology and pneumophysiology up to the autism spectrum disorder. We do hope that the existence of Supplementum confirms the necessity and importance of our meetings. Editors hope that readers will enjoy the presented manuscripts.

On behalf of Guest Editors  
Vladimír Riljak  
Jakub Otáhal