Preface

The Croatian Society of Biochemistry and Molecular Biology traditionally organizes its congresses every two years in different parts of Croatia. The last one, $HDBMB_{2008}$, was organized by the Osijek branch of the Society from 17 to 20 September, 2008 in Osijek, the charming capital of Slavonia and Baranja. The $HDBMB_{2008}$ hosted a hundred and sixty-nine scientists, both from Croatia and abroad, under the auspices of the Croatian Ministry of Science, Education and Sports, the Section of Natural Sciences of the Croatian Academy of Sciences and Arts, Josip Juraj Strossmayer University of Osijek, Osijek-Baranja County and the City of Osijek.

On the first day of the meeting, the Croatian Society of Biochemistry and Molecular Biology and the Institute for Medical Research and Occupational Health organized the Symposium in honour of Dr. Sc. Elsa Reiner, the first president and one of the founders of the Croatian Biochemical Society. Dr. Sc. Elsa Reiner was one of the leading scientists in the cholinesterase field, whose contribution to Croatian and global science is remarkable. Prominent experts and scientists talked about her scientific and professional activities on the national and international level.

The scientific programme of $HDBMB_{2008}$ was plentiful and interesting. The Congress topics were Nucleic Acids, Protein World, Cell Biochemistry, Molecular Bases of Disease and Therapy, Food and Nutrition, Ecology and Toxicology, New Technologies and Bioinformatics. Croatian scientists, as well as scientists from abroad (Austria, France, Germany, Iran, Serbia, Slovenia, Sweden, UK, and USA) presented and discussed the latest developments and advances in different areas of biochemistry and molecular biology through 21 lectures, 14 oral and 83 poster presentations. The plenary lecture was delivered by Professor Palmer Taylor. Almost one hundred young scientists presented their research findings as well.

In this issue of *Food Technology and Biotechnology*, dedicated to $HDBMB_{2008}$, some of the results presented at the meeting are, after peer reviewing process, reported as one review, 7 original scientific papers, one preliminary communication, and one scientific note.

An overview of the basic principle of RNA interference (RNAi) mechanisms, *in vivo* applications of RNAi technologies, as well as an observation of the development of potential therapeutic approaches was shown in the article by Matokanović and Barišić (*1*). A significant contribution to the setting of the basis for design of new dihidrofolate reductase inhibitors with potentially selective antibacterial properties was given by Banjanac *et al.* (*2*), who tested 60 compounds using cell and enzyme models as well as performing docking studies. A perceptible addendum to the field of yeast-related biotechnology was provided by the paper of Čanadi Jurešić *et al*. (*3*), who described changes in levels of phospholipids and in their fatty acid composition in *S. cerevisiae* cells subjected to repeated cycles of fermentation during beer production as adaptation mechanisms to stress. To improve the breeding programs of Croatian wheat cultivars assisted by computer models with the aim to meliorate flour technological quality, Horvat *et al*. (*4*) used multivariate chemometric analysis and found a strong influence of the high molecular mass glutenin subunits (HMM-GS) on a number of flour quality properties. The study by Batičić *et al*. (*5*) expands our knowledge about the fatty acid composition of *D. sargus* as a commercially important fish species in the Adriatic and Mediterranean Sea, and reveals a seasonality pattern of its hepatic fatty acid composition. To improve the knowledge on poriferan genomics, Perina *et al*. (*6*) analysed synonymous codon usage of a set of highly and lowly expressed *S. domuncula* genes and proposed that the preferential use of C- and G-ending codons in highly expressed genes had already been developed in a common ancestor of sponges and other Metazoa. A marked contribution to the biogenesis of photosynthetic membranes of chloroplasts is given in the paper by Lepeduš *et al*. (*7*), who characterized the changes in photosystem II photochemistry caused by deficiency of CYP38 protein. Very useful information for plant biologists is provided by Viljevac *et al*. (*8*), who investigated long-lasting biochemical responses in leaves of two apple cultivars after *E. amylovora* inoculation in order to find reliable biochemical parameters that could be correlated with pathogen resistance mechanisms. Špoljarić *et al*. (*9*), in their preliminary communication, confirmed that prolyl, leucyl, and arginyl aminopeptidases of two *S. rimosus* strains are intracellular enzymes residing in cytosol, but also suggested their partial association with cytoplasmic membrane. Finally, Strelec *et al.* (*10*) showed the results of examination of aminopeptidase activities in extracts of barley grains at different stages of germination.

On behalf of the Croatian Society of Biochemistry and Molecular Biology, Professor Mirna Flögel honoured the memory of Professor Berislav Pende, the President of the Croatian Biochemical Society from 1981 to 1983, and the pioneer of Croatian immunochemistry, who passed away on 26 March 2009.

As a guest editor I would like to thank the Editorial Board of *Food Technology and Biotechnology* for giving the Croatian Society of Biochemistry and Molecular Biology the opportunity to summarize the results presented during $HDBMB_{2008}$ in this Special issue. I am sincerely thankful to Professor Pavao Mildner and Professor Vladimir Mrša for immeasurable help in editing process. Special thanks go to all the authors for submitting their manuscripts for publication and reviewers for the contribution in evaluation process. The excellent technical assistance of the editorial staff of the journal, Ines Macan, Iva Grabarić Andonovski and Zrinka Pongrac Habdija in particular, is gratefully appreciated.

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