

## Proteins: from electrophoresis to proteomics 5th EFCC Symposium for Balkan Region

Nada Majkić-Singh

The Society of Medical Biochemists of Serbia has the pleasure to welcome the 5<sup>th</sup> EFCC Symposium for Balkan Region being held under the title **Proteins: from electrophoresis to proteomics**. The 5<sup>th</sup> EFCC Symposium for Balkan Region is organized under the auspices of the International Federation of Clinical Chemistry (IFCC) and European Federation of Clinical Chemistry and Laboratory Medicine (EFCC). The Society as a member of the IFCC and EFCC greatly appreciates the role it has in the continuing development of our discipline according to the IFCC mission and the Strategic Plan. EFCC appointed Belgrade (Serbia) and the Society of Medical Biochemists of Serbia as the organizer of educational symposia for clinical chemists in the Balkan region and as a result of this decision four symposia have been organized up to now very successfully.

The first Symposium (Belgrade, June 2005) under the title **»Education, Management and Standards in Laboratory Medicine«** appointed the Present and future activities of EC4 (Rob Jansen), Education and training program of the IFCC in clinical chemistry and laboratory medicine (Willem Huisman), A practical tool for the management of quality in the medical laboratory – ISO 15189 (David Burnett), External quality assessment programs: past, present and future (Mario Plebani), and the process of Establishing reference laboratories in laboratory medicine (Lothar Siekmann). Also experts from the Balkan region (L. Crezante, D. Rizos, N. Majkić-Singh, S. Ignjatović, G. Kolios, A. Tzontcheva) presented their experiences regarding the topics of the Symposium in the Balkan region.

During the 2nd EFCC Symposium (Novi Sad, October 2006) held under the title **»New Diagnostic Tools and Quality in Laboratory Medicine«** the New diagnostic tools in clinical chemistry: Applications of SELDI-TOF MS, 2 D-HPLC and microarrays in protein profiling (Marja P. van Dieijen-Visser, Isabella Levreri, Reinhard Hiller), the New biomarkers of diseases: Cardiac natriuretic peptides (Johannes Mair), Complexed PSA (Rainer Neumann), Bone remodeling (Jan Stepan), and Evidence-based approach (Svetlana Ignjatović, Nada Majkić-Singh) were discussed. A special section was devoted to the Application of quality indicators in a medical laboratory (Oswald Sonntag, Jakub Hejssek).

The 3<sup>rd</sup> EFCC Symposium (Belgrade, September 2007) titled **»Theory and Application of Evidence-Based Laboratory Medicine«** provided answers to the following questions: What is evidence based laboratory medicine? (Rita Horvath), How to ask the right questions? (Dunja Rogić), How should you read an article about a diagnostic test? (Svere Sandberg), What is a systematic review and how can it be performed? and How to appraise guidelines? (Rita Horvath), Is there a correlation between the methodological quality and the validity of contents of guidelines? (Joseph Wtine), How to implement EBLM in everyday practice? (Svere Sandberg). Also, special subjects addressed the matter of Diagnostic guidelines compared to therapeutic guidelines (Wytze Oosterhuis) and Simple statistics used in diagnostic test evaluations (Svere Sandberg & Diler Aslan) were presented. The experiences in Evidence-based laboratory medicine in the Balkan region were communicated by local speakers and round table discussions on the topics named were organized.

The 4<sup>th</sup> EFCC Symposium was organized with the subject **»Impact of the Pre-analytical Phase on the Quality of the Laboratory Results«** where the latest findings regarding the application and significance of the impact of preanalytical factors on the quality of laboratory results were presented with the goal of preventing preanalytical errors that can cause damage to the patients as well as the entire laboratory procedure (Victor Blaton, Nada Majkić-Singh, Sol Green, Pierangelo Bonini, Giuseppe Lippi). Safety measures during the process of collecting biological samples from patients were been discussed, e.g. during venipunctures, for the purpose of protecting the patients (Camilla Mattiuzzi). Besides presentations on the impact of the preanalytical phase in hematology (Giuseppe Banfi), sample stability was also reviewed (Gian Luca Salvagno), as well as the recommendations and ways of educating staff regarding the quality of diagnostic samples (Walter G. Guder). In order to achieve the best possible results, new approaches in laboratory medicine dealing with the application and philosophy behind the LEAN and SIX SIGMA techniques were laid out (Ana Stanković).

Experts from Serbia, Romania, Bulgaria and Greece (Z. Šumarac, A. Tzontcheva, M. Cojocar) presented their experiences regarding the application of the preanalytical phase technology in the Balkan region. Round table discussions on the topics presented served as the basis for reaching conclusions and guidelines in this area of laboratory medicine with the aim of achieving the best possible results to the benefit of patient treatment.

The idea of the 5<sup>th</sup> EFCC Symposium for Balkan Region under the title – **Proteins: from electrophoresis to proteomics** is to make a connection and show the continuation of different electrophoresis techniques for protein profiling to proteomics which is able to show the large-scale image of proteins, particularly their structures and functions. The proteome is the entire complement of proteins, including the modifications made to a particular set of proteins, produced by an organism or system. This will vary with time and distinct requirements, or stresses, that a cell or organism undergoes.

The program of the 5<sup>th</sup> Symposium covers: Clinical utility of serum protein electrophoresis (Xavier Bossuyt), Agarose gel electrophoresis and capillary electrophoresis (Jean-Francois Giot), Lab-on-chip electrophoresis (Olgica Trenčevska), MADGE-Microplate array diagonal gel electrophoresis (Sanja Stanković), Isoelectrofocusing and PCR amplification-reverse hybridization assay in evaluation of alfa-1-antitrypsin deficiency (Anđelo Beletić), Proteomics techniques in biomarker discovery (Aantonia Vlahou), Urinary proteome analysis using capillary electrophoresis coupled with mass spectrophotometry (Harald Mischak), Glucocorticoid receptor

in health and disease (Gordana Matić), Molecular diagnosis of phenylketonuria (Sonja Pavlović), Experiences in clinical protein arrays: Biochip cardiac array technology (Grazyna Sypniewska), Cytokine and growth factor array (Hans J. van Pelt), Colorectal cancer array (Andrew Cartwright) and Multiparameter testing of colorectal cancer (Bernhard Risse). About the use of the Analis CDT assay for screening for alcohol abuse the audience will hear from Jim Thorn.

Presentation of experiences in new technologies, including micro- and nanotechnologies for protein assays and proteomics in medical laboratories in the Balkan region, as well as a round table discussion on the topics discussed are planned.

On behalf of the Society of Medical Biochemists of Serbia and the EFCC we would like to welcome and thank all distinguished lecturers for their participation in our Meeting. Their presence gives very high recognition and prestige to this Meeting, which will influence the development of clinical chemistry and laboratory medicine in the Balkan region.

Special thanks are addressed to the participants whose presence is the main stimulus and only reward for those of us who have worked hard in organizing this meeting.

We would like to thank all industrial companies and local representatives participating in the exhibitions and sponsoring the organization of the Meeting.

We hope that the EFCC Symposium in Belgrade will continue its successful progress of the previous years, aiming to focus on the new data in the field of laboratory medicine.

## References

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Prof. Dr Nada Majkić-Singh  
Chair of the Meeting  
President of the Society of Medical Biochemists of Serbia