

## **XIX NATIONAL CONGRESS OF MEDICAL BIOCHEMISTRY AND LABORATORY MEDICINE**

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The National Congress of the Society of Medical Biochemists of Serbia (SMBS) is a biannual meeting, organized this year on September 9–13, and it included the 10<sup>th</sup> EFLM Symposium for Balkan Region (September 11–12). The Congress was organized for the 19<sup>th</sup> time by the Society of Medical Biochemists of Serbia, Faculty of Pharmacy University of Belgrade, and Center for Medical Biochemistry Clinical Center of Serbia, and under the auspices of the International Federation of Clinical Chemistry (IFCC), European Federation of Clinical Chemistry and Laboratory Medicine (EFLM), and Balkan Clinical Laboratory Federation (BCLF), as well as the Ministry of Education, Science and Technological Development, and Ministry of Health of Republic of Serbia. During the Opening Ceremony dr Bernard Gouget addressed to the participants on behalf of the IFCC, and Professor Grazyna Sypniewska on behalf of Professor Mauro Panthegini, EFLM President. Opening Ceremony was continued with the presentation of the SMBS' Foundation »Magistra Milica Marković«. Milka Golubović, president of the Magistra Milica Fund together with Olga Stefanović granded to the Dr Ivan Sretenović, director of Health Department Barajevo one Hematological Analyzer for Clinician-Biochemical Laboratory and Fund Diploma, as well as thanks certificate to Vicor Company. Branko Pavlović, student of the Pharmaceutical Faculty presented the activities of the Belgrade Pharmacy Student Organization.

Five Congress sessions were held, dedicated to the most recent findings and the application of models of management medical-biochemical laboratories focused on the patient, improving patient outcomes through the use of biomarkers and clinically effective strategy utilization of laboratory tests. Opening lecture announced this program in the best possible way, when professor Zbigniew Gaciong (Department of Internal Medicine, Hypertension and Vascular

Diseases, Medical University of Warsaw, Poland) reviewed the concept of personalized health care and modern laboratory technologies upon it is based. The first session was dealing with genetic and non-genetic risk factors and biomarkers of atherosclerosis. Professor Darko Černe (Department of Clinical Biochemistry, Faculty of Pharmacy, University of Ljubljana, Slovenia) opened the session with his talk about cathepsin S and its association with a more atherogenic LDL subclass profile, suggesting a new mechanism of cathepsin S mediated atherogenesis. The following lectures presented novel aspects of atherosclerosis development and biomarkers, through results of the research group of the Department of Medical Biochemistry of the Faculty of Pharmacy, University of Belgrade. Assistant professor Jelena Vekić talked about significance of low-density and high-density lipoprotein subfractions determination in the assessment of cardiovascular disease risk for the timely prevention of development and adverse outcome of the disease. Results of the study of longitudinal changes in lipid profile parameters, oxidative stress status and markers of inflammation through normal pregnancy, presented by assistant professor Aleksandra Stefanović, indicated that pregnancy is characterized by intense inflammatory process and impaired lipid metabolism. About the clinical significance of gene expression analysis in human blood, through the results of the study that examined the influence of physical activity on SOD isoenzymes' gene expression levels in athletes' lymphocytes, talked assistant professor Ana Ninić. The session was closed with the way of economic evaluation of new biomarkers, the cost-effectiveness analysis, constructed to identify laboratory procedures or diagnostic markers of the greatest health care benefit with the resources available, presented by the associate professor Nataša Bogavac-Stanojević. The congress



Presidents of Organising and Scientific Committee: Z. Šumarac, N. Majkić-Singh, S. Ignjatović



Dr Bernard Gouget addresses the Congress participants on behalf of the IFCC



Professor Grazyna Sypniewska addresses the Congress participants on behalf of the EFLM



Milka Golubović present the Fund Diploma to Olga Stefanović from Vicor Company



Olga Stefanović present the award to dr Ivan Sretenović, director of the Barajevo Health Department





Representatives of the Fund »Magistra Milica Marković« during XIX Congress of Medical Biochemists of Serbia with dr Ivan Sretenović and members from Vicor Company (from left to right: M. Panjković, Z. Šumarac, M. Golubović, I. Sretenović, N. Majkić-Singh, Z. Vujić, V. Mitrović)



Branko Pavlović, chair of TMB section of Belgrade Pharmacy Student Association addresses to the Congress participants



Professor Zbigniew Gaciong presented the Opening Lecture

continued with the second session dedicated to molecular basis and practical considerations of biomarkers of cardiovascular disease. Professor Zorana Vasiljević (Faculty of Medicine, University of Belgrade) overviewed the significance of cardiac markers in cardiovascular disease guidelines and algorithms, emphasizing the indispensable place of cardiac troponin, D-dimer and BNP and proBNP. The review of the evaluation process of new biomarkers from research to routine clinical practice through the example of some new circulating biomarkers of cardiovascular diseases – GDF-15, ST2 and galectin-3, was presented by professor Grazyna Sypniewska (Department of Laboratory Medicine, Collegium Medicum, Nicolaus Copernicus University, Bydgoszcz, Poland). Finally, dr Sanja Stanković (Center for Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia) closed the session with the talk about the current challenges and future research in the field of genetics and epigenetics of heart failure. The following session was dedicated to the organization of medical-biochemical laboratories. The current issues in this field were considered first through the lecture about pits and pitfalls of manufacturer declarations, presented by dr Nora Nikola (University Department of Chemistry, Medical School University Hospital Sestre Milosrdnice, Zagreb, Croatia). The problem of prevention occupational bloodborne infections in healthcare workers and post-exposure prophylaxis was discussed in the lecture of dr Zorica Šumarac (Center for Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia). Dr Mirjana Djerić (Clinical Center of Vojvodina, Center for Laboratory Medicine, Medical Faculty Novi Sad, Serbia) reminded on the importance of communication between clinicians and the laboratory, and the team work as the basis for success. Finally, dr Velibor Canić from the Serbian Chamber of Biochemists emphasized the importance of the Chamber in organizing laboratory service. The fourth session covered the role of biomarkers in the sepsis diagnosis algorithm. The opening lecturer, professor Matej Podbregar (Clinical Department for Internal Intensive Care Medicine, University Medical Center Ljubljana, and Medical Faculty, University of Ljubljana, Slovenia) presented the basis of clinical approach to sepsis and septic shock. The talk about the role of procalcitonin and APACHE II score in early prediction of severity in acute abdominal conditions followed, presented by professor Nenad Ivančević (Center for Emergency Surgery, Clinical Center of Serbia, and Medical Faculty, University of Belgrade, Serbia). The session was closed with the evaluation of diagnostic and prognostic value of biomarkers in the management of abdominal sepsis, by dr Tatjana Vodnik (Center for Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia). The final, fifth session, of the

XIX National SMBS Congress was dedicated to the management of requests for laboratory investigation of thyroid function. Professor Miloš Žarković (School of Medicine, University of Belgrade, and Clinic of Endocrinology, Clinical Center of Serbia, Belgrade, Serbia) opened the session with guidelines and algorithms of thyroid function investigation, with the emphasis on conditions when TSH determination is not enough and circulating thyroid hormones need to be measured. The issues connected with the ways, means and benefits of standardization and harmonization of endocrine assays were elaborated by professor Pierre Carayon (Aix-Marseille University, France), and the talk about the importance of appropriate utilization of thyroid function tests in medical-biochemistry laboratory, concerning the overall test utilization control process, was presented by professor Svetlana Ignjatović (Department of Medical Biochemistry, Faculty of Pharmacy, University of Belgrade, and Center for Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia). The session closed dr Neda Milinković (Center for Medical Biochemistry, Clinical Center of Serbia, and Department of Medical Biochemistry, Faculty of Pharmacy, University of Belgrade, Serbia) with the results of her indirect determination of reference values for the parameters of thyroid status.

During the XIX National Congress of SMBS, the special section was dedicated to student's scientific researches in the field of medical biochemistry and pharmaceutical science. The participants were students of medical biochemistry and pharmacy at the Faculty of Pharmacy, University of Belgrade, with their guests, medical biochemistry students from Faculties of Pharmacy from Zagreb and Ljubljana. The program included nine oral presentation of students' projects and eleven poster presentations, which competed for the best poster award – the participation at the upcoming EuroMedLab 2015 in Paris. The authors of the awarded poster are Marijana Jevtić and Tanja Gligorov.

With over 250 participants from Serbia and Balkan and 17 international lecturers, this years Symposium and Congress fulfilled the high expectations set traditionally by the SBSS. This is thank to dedicted work of the Symposium President – professor Nada Majkić-Singh, the President of the SMBS Congress Scientific Committee – professor Svetlana Ignjatović, and the President of the Organizing Committee – dr Zorica Šumarac, President of the SMBS, as well as to all other members of the Organizing Committee. After leaving these two successful events behind us, with many thanks to all the lecturers, we are looking forward to the 11<sup>th</sup> BCLF Symposium for Balkan Region and the next years' events dedicated to the celebration of the 60<sup>th</sup> anniversary of the SMBS.





Members of Organizing Committee of the XIX Congress of Medical Biochemists of Serbia with guests



Participants of the XIX Congress of Medical Biochemists of Serbia





The lecturers and participants of the XIX Congress of Medical Biochemists of Serbia



S. Ignjatović, N. Majkić-Singh, Z. Šumarac and B. Pavlović with awarded students M. Jevtić and T. Gligorov