

**INFORMACIJE O ŠESTOM EFCC SIMPOZIJUMU
ZA BALKANSKI REGION I XVII SRPSKOM KONGRESU
MEDICINSKE BIOHEMIJE I LABORATORIJSKE MEDICINE**

**INFORMATION ON THE 6th EFCC SYMPOSIUM
FOR BALKAN REGION AND THE 17th SERBIAN CONGRESS
OF MEDICAL BIOCHEMISTRY AND LABORATORY MEDICINE**

By Professor Dr. Nada Majkić-Singh
President of the Society of Medical Biochemists of Serbia
and the Scientific Committees of the Congress and Symposium

Od 4. do 9 oktobra 2010. godine, Beograd je bio domaćin XVII Kongresa medicinske biohemije i laboratorijske medicine sa međunarodnim učešćem, koji su organizovali Društvo medicinskih biohemičara Srbije i Institut za medicinsku biohemiju Kliničkog centra Srbije. Kongres je održan pod pokroviteljstvom Međunarodne federacije za kliničku hemiju i laboratorijsku medicinu (IFCC), Evropske federacije za kliničku hemiju i laboratorijsku medicinu (EFCC) i Balkanske kliničko-laboratorijske federacije (BCLF), kao i Ministarstva za nauku i zdravlje Republike Srbije.

U okviru kongresa, 7. oktobra 2010. godine održan je i Šesti EFCC simpozijum za balkanski region, organizovan zasebno pod nazivom *Implementacija laboratorijske automatizacije, kvaliteta i efikasnosti*. Koordinator simpozijuma bili su prof. Nada Majkić-Singh ispred Društva medicinskih biohemičara Srbije i prof. Viktor Blaton, nekadašnji predsednik EFCC, ispred Evropske federacije za kliničku hemiju i laboratorijsku medicinu. Tokom svečanog otvaranja, profesoru Viktoru Blatonu je od strane Društva medicinskih biohemičara Srbije uručena Povelja, najveće priznanje koje Društvo dodeljuje, za njegov doprinos razvoju kliničke hemije i laboratorijske medicine u Srbiji i balkanskom regionu i za promovisanje tih disciplina u Srbiji i svetskoj profesionalnoj zajednici.

Tokom trajanja kongresa proslavljena je i jubilarna 55. godišnjica osnivanja Društva medicinskih biohemičara Srbije. Tim povodom, profesor Nada Majkić-Singh podsetila je prisutne na rad i aktivnosti Društva medicinskih biohemičara Srbije od njegovog osnivanja do danas, predstavljajući istorijski okvir, ciljeve Društva, organizaciju Društva i njegove stručne, izdavačke, kongresne i ostale aktivnosti.

From the 4th till the 9th of October 2010, Belgrade was the host of the 17th Congress of Medical Biochemistry and Laboratory Medicine with international participation organized by the Society of Medical Biochemists of Serbia and the Institute of Medical Biochemistry of the Clinical Centre of Serbia. As part of the Congress, on the 7th of October 2010, the 6th EFCC Symposium for the Balkan Region took place, organized separately under the title *Implementing Laboratory Automation, Quality and Efficiency*. Symposium coordinators were Professor Nada Majkić-Singh on behalf of the Society of Medical Biochemists of Serbia and Professor Victor Blaton, Former EFCC President, on behalf of the European Federation for Clinical Chemistry and Laboratory Medicine. The Congress and Symposium were held under the auspices of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), European Federation of Clinical Chemistry and Laboratory Medicine (EFCC) and the Balkan Clinical Laboratory Federation (BCLF), as well as the Ministry of Science of the Republic of Serbia.

During the Opening ceremony, Professor Victor Blaton received an Honorary Diploma from the Society of Medical Biochemists of Serbia, the highest recognition awarded by the Society, for his contribution to the development of clinical chemistry and laboratory medicine in Serbia and the Balkan region and for promoting these disciplines in Serbia and the global professional community.

Celebration of the 55th jubilee anniversary of the founding of the Society of Medical Biochemists of Serbia coincided with the Congress. On this occasion, Professor Nada Majkić-Singh evoked the achievements and activities of the Society of Medical Biochemists of Serbia since its establishment up to this

Profesor David Goldberg iz Kanade održao je uvodno predavanje naslovljeno »Vino i zdravlje: paradigma za alkohol i antioksidante« u kome je objasnio uticaj etanola i polifenolnih antioksidanata crvenog vina kao potencijalnih inhibitora ateroskleroze i mehanizama ovog procesa. Ostale plenarne sekcije XVII Kongresa medicinske biohemije i laboratorijske medicine bile su posvećene najnovijim saznanjima o biohemijskim markerima za različite bolesti i stanja i njihovoj primeni, pre svega detekciji i kliničkom značaju slobodnih radikala u cirkulaciji, pri čemu je opisana složenost metabolizma slobodnih radikala u humanim eritrocitima (M. Spasić), zatim dijagnostički i terapijski značaj parametara oksidativnog stresa kod dece (M. Bajčetić) kao i primena elektronske paramagnetne rezonance kao moćne alatke medicinske biohemije za otkrivanje mehanizama bolesti i predviđanje uspešnosti tretmana (I. Spasojević).

Sekcija *Dijagnostika bolesti tireoidee* obuhvatila je sledeća predavanja: »Dijagnoza tireoidne bolesti« (M. Žarković), »Genetika tireoidnog kancera« (S. Damjanović), »Merenje koncentracija tireoglobulina kod pacijenata sa diferentovanim karcinomom tireoidee« (S. Savin) i »Značaj određivanja hormona i proteina u materijalu dobijenom aspiracijom tankom iglom« (B. Trbojević). »Najnovija saznanja o detekciji i kliničkom značaju lipopolisaharid-vezujućeg proteina u infekciji i sepsi« (D. Schmidt), »ESR Test: stari test sa novim konceptima« (M. Plebani i E. Piva), »D-dimer u lečenju venskog tromboembolizma« (G. Le Gal) i »Point-of-care testiranje D-dimera« (J. Antović), »Osetljivi testovi za srčani troponin: mit i magija ili praktičan put napred?« (D. Gaze) i »Dijagnostičke i prognostičke informacije koje pruža veoma osetljivi test za srčani troponin T« (J. Jarausch) predstavljeni su u okviru sekcije *Novi biohemijski markeri*. Sekcija *Biohemijski markeri bubrežnih oboljenja* bila je posvećena radovima: »Određivanje biomarkera u serumu i urinu« (V. Ležajić), »Kardiovaskularni biomarkeri u hroničnoj bolesti bubrega« (M. Đerić), »NGAL u urinu kao novi biomarker za ranu detekciju akutnog oštećenja bubrega« (KM Schmidt-Ott) i »Značaj određivanja KIM-1 u tkivu i urinu pacijenata sa različitim bubrežnim oboljenjima« (S. Simić-Ogrizović). Vrlo važne sekcije bavile su se analizom proteina na molekularnom nivou, od fundamentalnog istraživanja do primene u medicini, omogućavajući uvid u »Individualizovanu terapiju i ulogu proteina tiopurin S-metiltransferaze i genetskih varijanti« (S. Pavlović), »Moguću ulogu MARP proteinske familije u molekularnom mehanizmu tumorogeneze« i »Ulogu rRNA metiltransferaza u rezistenciji na antibiotike«. Takođe su razmatrani »Značaj genetskog polimorfizma kao markera za podložnost nastanku bolesti« (I. Novaković), npr. u odnosu na »Genetski epidemiološki pristup« (T. Pekmezović), kao i »Genetska predispozicija za dijabetes melitus tipa 1« (K. Stankov) i »Uloga polimorfizma GSTM1 kod pacijenata sa bubrežnim tumorima i tumorima mokraćne bešike« (T. Simić).

day, by presenting the Historical Background, Aims of the Society, Society Organization, and Professional, Publishing, Congressional and other Activities.

Professor David Goldberg from Canada gave the Opening lecture on »Wine and Health: A Paradigm for Alcohol and Antioxidants« explaining the relative contributions of ethanol and the polyphenolic antioxidants of red wine by considering their potential to inhibit atherogenesis and the mechanisms involved. Other plenary sections of the 17th Congress of Medical Biochemistry and Laboratory Medicine were dedicated to the latest findings on biochemical markers for various diseases and states and their application, primarily the *Detection and Clinical Significance of Free Radicals in Circulation* describing the complexity of free radical metabolism in human erythrocytes (M. Spasić), the diagnostic and therapeutic significance of oxidative stress parameters in children (M. Bajčetić) and the application of electron paramagnetic resonance as a powerful tool of medical biochemistry in discovering mechanisms of disease and treatment prospects (I. Spasojević).

The *Thyroid Disease Diagnostics* section included the following lectures: »Diagnosis of Thyroid Disease« (M. Žarković), »Genetics of Thyroid Cancer« (S. Damjanović), »Measuring Thyroglobulin Concentrations in Patients with Differentiated Thyroid Carcinoma« (S. Savin) and »The Importance of Hormones and Proteins Determination in the Material Obtained by Fine Needle Aspiration Biopsy« (B. Trbojević).

Latest Knowledge about the »Clinical Value of Lipopolysaccharide-Binding Protein in Infection and Sepsis« (D. Schmidt), »The ESR Test: An Old Test with New Concepts« (M. Plebani and E. Piva), »D-Dimer in the Management of Venous Thromboembolism« (G. Le Gal) and »Point-of-Care D-Dimer Testing« (J. Antović), »Sensitive Cardiac Troponin Assays: Myth and Magic or A Practical Way Forward?« (D. Gaze) and »Diagnostic and Prognostic Information Provided by a High Sensitivity Assay for Cardiac Troponin T« (J. Jarausch) were all presented in the section *New Biochemical Markers*. The *Biochemical Markers of Kidney Diseases* section was devoted to »Serum and Urinary Biomarkers Determination« (V. Ležajić), »Cardiovascular Biomarkers in Chronic Kidney Disease« (M. Đerić), »Urinary NGAL as a Novel Biomarker for the Early Detection of Acute Kidney Injury« (KM Schmidt-Ott) and the »Importance of KIM-1 Determination in Tissue and Urine of Patients with Different Kidney Diseases« (S. Simić-Ogrizović). Very important sections dealt with *Protein Analysis at the Molecular Level: from fundamental research to the application in medicine*, providing insights into »Individualized Therapy and Role of Thiopurine S-Methyltransferase Protein and Genetic Variants« (S. Pavlović), »A Possible Role of MARP Protein Family in Molecular Mechanism of Tumorogenesis«, and the »Role of rRNA Methyltransferases in Resistance to Antibiotics«. *The Significance of Genetic Polymorphism as a Marker for*

Tokom Šestog EFCC simpozijuma za balkanski region istaknuti strani i domaći stručnjaci upoznali su učesnike sa načinima za postizanje pune automatizacije i laboratorijske konsolidacije, u cilju podržavanja filozofije Lean i Six Sigma laboratorijske efikasnosti. Stručnjaci iz Italije, Nemačke, Švajcarske, Austrije i Belgije izneli su svoja iskustva zajedno sa uvažanim domaćim naučnicima. Održana su sledeća predavanja: »Implementacija laboratorijske automatizacije, kvaliteta i efikasnosti« (Svetlana Ignjatović i Nada Majkić-Singh), »Medicinske greške: važnost preanalitike za bezbednost pacijenta« (Mario Plebani), »Preanalitička radna stanica kao sredstvo za smanjenje laboratorijskih grešaka« (Giorgio Da Rin), »Progresivna automatizacija – najbolje rešenje za popravljavanje laboratorijske efikasnosti« (Jan-Michel Valid), »Centralizacija, konsolidacija i automatizacija u lokalnoj bolničkoj mreži« (Gerd Hafner), »Koncepti za organizaciju Lean laboratorije« (Gabriele Halwachs-Baumann) i »Automatizacija, Lean, Six Sigma – sinergija u taktici za unapređivanje laboratorijske efikasnosti« (Davide Villa), »Koncepti za *in vitro* dijagnostičku organizaciju: konsultantske usluge u cilju razvoja personalizovanih ekonomičnih i visokokvalitetnih *in vitro* dijagnostičkih rešenja« (Gerhard Wirl) i »Lean i Six Sigma proces analize uzorka u mikrobiološkoj laboratoriji« (Vojislav Stoiljković).

Odabrane teme obuhvatile su na multidisciplinarni način oblast laboratorijske medicine i ostalih medicinskih nauka. Aktivno učešće mnogobrojnih stručnjaka različitih profila dodatno je naglasilo multidisciplinarni karakter kongresa. Kao i prethodnih godina, dakle, ovaj kongres je omogućio predstavljanje najnovijih naučnih i stručnih dostignuća kliničkim hemičarima iz Srbije i balkanskog regiona i poslužio kao mesto za razmenu iskustava u cilju unapređivanja savremene laboratorijske prakse. Tokom svečanog zatvaranja, profesor David Goldberg održao je veoma zanimljivo i važno predavanje naslovljeno »Nauka na raskršću: činjenica ili fikcija?«, u kojem je govorio o pravcu kojim je savremena nauka krenula pre izvesnog vremena i ponudio vredne savete za budućnost.

Diskusije na date teme u okviru okruglih stolova poslužile su kao osnova za donošenje zaključaka i smerica u ovoj oblasti laboratorijske medicine, sa ciljem postizanja najboljih rezultata tretmana u korist pacijenata. Stalna postavka opreme i reagensa bila je izložena tokom kongresa i simpozijuma, dok su razne kompanije organizovale brojne praktične radionice.

Organizacija nacionalnog XVII Srpskog kongresa medicinske biohemije i laboratorijske medicine i Šestog EFCC simpozijuma za balkanski region rezultat je truda i angažovanja koordinatora kao i svih članova naučnih i organizacionih odbora. Više od 450 stručnjaka iz Srbije i ostalih balkanskih zemalja aktivno je učestvovalo u kongresu i simpozijumu i nama ostaje samo da se nadamo da je program koji smo ponudili ispunio njihova očekivanja i da su kroz takvu razmenu

Proneness to Disease Formation (I. Novaković), e.g. in relation to the »Genetic Epidemiologic Approach« (T. Pekmezović), »Genetic Predisposition to Type 1 Diabetes Mellitus« (K. Stankov) and »The Role of GSTM1 Polymorphism in Patients with Renal and Urinary Bladder Tumors« (T. Simić) were also discussed.

In the course of the 6th EFCC Symposium for Balkan Region prominent foreign and local experts introduced to the participants the means for achieving full automation and laboratory consolidation with the goal of adhering to the philosophy of Lean and Six Sigma laboratory efficiency. Experts from Italy, Germany, Switzerland, Austria and Belgium revealed their experiences along with distinguished local scientists. The following lectures were presented: »Implementing Laboratory Automation, Quality and Efficiency« (Svetlana Ignjatović and Nada Majkić-Singh), »Medical Errors: Preanalytical Issue in Patient Safety« (Mario Plebani), »Preanalytical Workstation as a Tool for Reducing Laboratory Errors« (Giorgio Da Rin), »Progressive Automation – the Solution of Choice for Improving Lab Efficiency« (Jan-Michel Valid), »Centralization, Consolidation and Automation in a Local Hospital Network« (Gerd Hafner), »Concepts for Lean Laboratory Organization« (Gabriele Halwachs-Baumann) and »Automation, Lean, Six Sigma – Synergy in Tactics to Improve Lab Efficiency« (Davide Villa), »Concepts for an In vitro Diagnostic Organization: Consulting Services to Develop Customized Economical and High Quality In Vitro Diagnostic Solutions« (Gerhard Wirl) and »Lean and Six Sigma Sample Analysis Process in a Microbiology Laboratory« (Vojislav Stoiljković).

The topics selected covered in a multidisciplinary fashion the field of laboratory medicine and other medical sciences. A number of experts in various areas actively took part by contributing their work, which further accentuated the multidisciplinary character of the Congress. Like in previous years, this Congress has, therefore, made it possible for the latest scientific and expert results to be presented to clinical chemists from Serbia and the Balkan region and has served as a place for exchanging experiences in order to promote contemporary laboratory practice. During the closing ceremony, Professor David Goldberg gave a very interesting and important lecture entitled »Science at the Crossroads: Fact or Fiction?« in which he examined the direction contemporary science took a while ago and offered some valuable advice.

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 treatment results for the benefit of patients. A permanent exhibition of equipment and reagents was on display during the Congress and Symposium, and many practical workshops were organized by various companies.

iskustava bili u prilici da obogate svoje znanje, što će im bez sumnje koristiti u svakodnevnoj laboratorijskoj praksi.

Takođe se iskreno nadamo da je Beograd, naš drevni grad na dve reke, bio ljubazan i zanimljiv domaćin kojeg će učesnici kongresa dugo nositi u srcima.

Sva predavanja objavljena su u nacionalnom naučnom časopisu Društva medicinskih biohemičara Srbije – *Journal of Medical Biochemistry* 2010; 29: 131–230 i 29: 231–492.

Organization of the National 17th Serbian Congress of Medical Biochemistry and Laboratory Medicine and 6th EFCC Symposium for the Balkan region was the result of engagement and effort by the coordinators and all members of the Scientific and Organizing Committees. More than 450 participants from Serbia and other Balkan countries were actively engaged in the Congress and Symposium, and we can only hope that the program we had to offer met their expectations and that through such an exchange of experiences they were able to enrich their knowledge, which will doubtlessly be useful in everyday laboratory practice.

We also sincerely hope that Belgrade, our ancient city upon two rivers, was recognized as a kind and interesting host that the Congress participants will carry in their hearts for a long time.

All lectures are published in the national journal of the Society of Medical Biochemists of Serbia – *Journal of Medical Biochemistry* 2010; 29: 131–230, and 29: 231–492.



Profesor Victor Blaton, predsednik EFCC-a prima Povelju Društva medicinskih biohemičara Srbije od predsednika Prof. dr Nade Majkić-Singh

Professor Victor Blaton receiving the Honorary Diploma from Professor Nada Majkić-Singh, president of the Society of Medical Biochemists of Serbia



Primarius Olivera Janković prima Povelju Društva medicinskih biohemičara Srbije od predsednika Prof. dr Nade Majkić-Singh

Primarius Olivera Janković receiving the Honorary Diploma from Professor Nada Majkić-Singh, president of the Society of the Medical Biochemists of Serbia



Učesnici XVII Srpskog Kongresa medicinske biohemije i laboratorijske medicine i 6th EFCC Symposium for Balkan Region sa »Big Bendom« Dejana Petrovića

The Participants on the Opening Ceremony 6th EFCC Symposium for Balkan Region and XVII Serbian Congress, in the middle from left to right: S. Ignjatović, D. Goldberg, N. Majkić-Singh, V. Blaton, O. Janković