## XXII SERBIAN CONGRESS OF MEDICAL BIOCHEMISTRY AND LABORATORY MEDICINE AND 16TH BELGRADE SYMPOSIUM FOR BALKAN REGION

Laboratory Medicine Management: Leadership Skills for Effective Laboratory

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After the postponement of two years, caused by the global pandemic, on 12–14<sup>th</sup> September 2022, the Serbian Society of Medical Biochemists of Serbia (SMBS) had the pleasure to organize the 22<sup>nd</sup> Serbian Congress of Medical Biochemistry and Laboratory Medicine with international participation together with the 16<sup>th</sup> Belgrade Symposium for Balkan Region. The meetings were organized together with the University of Belgrade – Faculty of Pharmacy, and under the auspices of IFCC, EFLM, Balkan Clinical Laboratory Federation (BCLF), Ministry of Education, Science, and Technological Development, and Ministry of Health of the Republic of Serbia.

We had the pleasure to welcome Prof. Mario Plebani, President-Elect of EFLM, who greeted the audience on behalf of EFLM President and the Executive Board. His presence was enabled by the EFLM program »Invite an EFLM Executive Board Representative at your National Congress«. SMBS was very happy to host Prof. Plebani and is thankful to the EFLM for supporting our national congress in this way. Suzana Savić, Fuculty Vice-Dean greeted the Congress audience and Prof. Branislava Miljković, SUFUS president on behalf of the Pharmaceutical Society of Serbia.

Prof. Plebani opened the Congress with the remarkable plenary lecture »Laboratory medicine in the era of COVID-19: lessons for the future«.

Exceptionally, since the global pandemic interfered and affected our profession in a particular way, the Scientific Board decided to dedicate it two plenary lectures. The other, immediately following the lecture of Prof. Plebani, described the local experiences and practically was the opening lecture of the Symposium for Balkan Region. It was entitled »Laboratory management in the new normal«, presented by Prof. Dunja Rogić from the University Hospital Center Zagreb, Croatia.

After the plenary lectures, the Award of the Foundation »Magistra Milica Marković« was presented. The Foundation recognizes and awards medical biochemists or laboratories for promoting the technological and organizational work principles of clinical laboratories, improving the quality of laboratory services, and for promoting the profession. This year's laureate were the »Aqualab« laboratories.

The 16<sup>th</sup> Belgrade Symposium for Balkan region drew a lot of attention from colleagues from the neighboring countries. This Symposium continued the fourteen years long tradition of EFLM Symposiums for Balkan Region. In 2019 it was renamed to Belgrade Symposium for Balkan Region, when the pandemic postponed the consecutive one for two years. The first session was dedicated to the professional challenges in the era of innovational technologies. The speakers in this session were Gilbert Wieringa, Wytze Oosterhuis and Snežana Jovičić. In his talk entitled »Meeting the leadership challenge of disruptive innovation«, Gilbert Wieringa indicated the emerging leadership challenges for specialists in laboratory medicine as the consequence of the 21st century artificial intelligence driven algorithms that are reducing the need for expert human resource. Wytze Oosterhuis presented the added value by interpretative commenting, as one of the activities that can support physicians and help to improve patient treatment outcomes, reflective testing, but also the challenges it is facing. Snežana Jovičić closed the first session by presenting the

results of the EFLM Working Group on Patient Focused Laboratory Medicine study on reliability and benchmarking of smartphone applications that are using laboratory medicine data.

The second session was dedicated to the challenges in laboratory medicine management of effective laboratories. The Chair of the EFLM Profession Committee, Prof. Evgenija Homšak, presented the possibilities for professional development of laboratory medicine professionals in and through EFLM countries, describing the tools and opportunities available. The current issues in accreditation in laboratories was presented by Prof. Dunja Rogić, while Prof. Nataša Bogavac-Stanojević (University of Belgrade - Faculty of Pharmacy) talked about the importance of laboratory guidelines for medical laboratory practical work, being the member of the EFLM Working Group Guidelines. The session was closed by Prof. Katerina Tosheska Trajkovska (University of Skopje – Medical Faculty, North Macedonia) with her inspiring talk about managing and leadership in medical laboratories.

The 22<sup>nd</sup> Serbian Congress of Medical Biochemistry and Laboratory Medicine started with a session dedicated to the use of patient results in medical laboratories. This session, dealing with the current and very much discussed issues, started with the introductory talk of Prof. Svetlana Ignjatović about the implementation of patient-based real time quality control. Dr Vera Lukić demonstrated how can the moving average procedure be used as a continuous quality control in medical laboratories, while Prof. Neda Milinković presented the use of patient results for calculation of reference intervals.

The following session was dedicated to improving children's health through laboratory medicine. This session covered a wide range of particular issues and challenges of medical biochemistry in pediatric medicine, from new biomarkers of acute kidney injury (presented by Prof. Dušan Paripović) and the diagnostic challenges in the delayed puberty (by Prof. Rade Vuković), through the applications of new biomarkers of sepsis in neonatology (by Dr Ana Đorđević Vujičić) and the role of medical laboratory in the diagnosis and monitoring of co-morbidities in type 1 diabetes melitus (by Dr Dragana Bojanin), to the laboratory diagnosis of allergies in children (by Dr Iva Perović Blagojević). The closing session of the second day dealt with another specific topic, the role of the clinical laboratory in female reproductive health management. The particular issues, from the potential of use of biochemical parameters in risk assessment of pregnancy complications (presented by Dr Daniela Ardalić) and the diagnostic accuracy of tests of ovarian reserve (by Prof. Aleksandra Stefanović), through the very controversial topic of the role of sexual steroids in women and men over 50 years of age (presented by the remarkable Prof. Svetlana Vujović), to the role of iron metabolism in pregnancy outcome (by Dr Danica Ćujić), kept the audience's attention even in the late afternoon.

The closing day started with the discussion regarding the novel biomarkers in the era of personalized medicine. The lectures covered several fields of the current research in this domain, from the mighty of role of pharmacogenetics in precision medicine in oncology (presented by Dr Milena Čavić) and the advanced lipid status biomarkers in colorectal cancer (by Prof. Aleksandra Zeljković), to the potential and perspective of galectins as biomarkers (by Dr Žanka Bojić Trbojević) and the challenges in laboratory diagnostics of thyroid disorders (by Prof. Bosa Mirjanić Azarić).

Traditionally, the last session was Forum of young researchers. Introduced three congress editions ago, this section aspires to be an ideal place for young scientists, laboratory professionals and students to interact and share ideas. This time, the Forum was dedicated to the opportunities and possibilities that PhD studies enable in professional achievements. Before presenting the results of the latest research of PhD students at the University of Belgrade - Faculty of Pharmacy Department of Medical Biochemistry, the participants could learn about the expectations, possibilities, and potential for successful international career development of PhDs in IVD industry from Dr Gordana Dmitrašinović (Product Manager at Makler d.o.o) and Dr Tijana Krnieta Janićijević (International Medical Affairs Manager at Roche Diagnostics International Ltd., Global Medical and Scientific Affairs CPS).

Between the sessions the promotion of two monographs, recently published by the SMBS, took place. One was »Scientific Foundation »Professor Ivan Berkeš«, dedicated to the life and work of the esteemed Professor Ivan Berkeš, to the review of the previous scientific conferences organized to honor his legacy, also to the Foundation »Professor Ivan Berkeš«, and to the laureates of its annual award. All 48 laureates that received this award from 1998 to this day were invited and they received their copy of the book. The other monograph presented was »Professional Activities of Serbian Laboratory Medicine Specialists in Balkan Region«, dedicated to the history of Balkan Clinical Laboratory Federation and the role of SMBS as one of the founders and its spiritus movens. Both books were authored by Prof. Nada Majkić Singh and Prof. Snežana Jovičić.

During these three days Belgrade hosted almost 300 participants from Serbia and neighboring countries (Bosnia and Herzegovina, North Macedonia, and Montenegro). The Congress passed in the spirit of exchanging experience, vivid discussions during the lectures, but also at the poster session, showing how much the in-presence meetings and events were missed during the previous pandemic years. We all hope that these days are behind us.



Opening XXIII Serbian Congress & 16th Belgrade Symposium for Balkan Region.



Zorica Šumarac addresses to Congress participants.



Professor Mario Plebani welcome address to the participants on behalf of the EFLM.



Suzana Savić, Pharmacetical Faculty Vice-Dean welcome address to the participants.



Branislava Miljković, SUFUS President welcome address to the participants.



Professor Mario Plebani present the Opening Lecture.



Dunja Rogić present the Opening Lecture.



Congress participants.



Nada Majkić-Singh address to the participants.



Milka Golubović presenting the Fund »Magistra Milica Marković«.



Ana Paković anouncing that »Aqualab« will received the Award from Milica Marković Fund.



Members of »Aqualab« after receiving the Milica Marković Fund Award.



Nada Majkić-Singh and Zorica Šumarac with Branislava Miljković and Suzana Savić.



At the Opening ceremony, from left to right: Prof. Snežana Jovičić (Congress Technical Organizing Board Chair), Dr Iva Perović Blagojević (Congress Organizing Board Chair), Prof. Branislava Miljković (President of the Association of Pharmaceutical Associations of Serbia), Prof. Zorica Šumarac (President of SMBS), Prof. Nada Majkić-Singh (Executive Director of the SMBS), Prof. Vesna Spasojević Kalimanovska (Congress Scientific Board Chair), Prof. Snežana Savić (Vice Dean for Science and International Relations of the University of Belgrade – Faculty of Pharmacy), Dr Wytze Oosterhuis, Prof. Evgenija Homšak, Prof. Mario Plebani, and Dr Gilbert Wieringa.



Nada Majkić-Singh, Mario Plebani and Snežana Jovičić.



Nada Majkić-Singh with Nora Nikolac Gabaj and Marijana Miler.



Pharmaceutical Faculty students.



Gilbert Wieringa presenting the lecture.



Wytze Oosterhuis presenting the lecture.



Snežana Jovičić presenting the lecture.



Evgenija Homšak presenting the lecture.



Nataša Bogavac-Stanojević presenting the lecture.



Katerina Tošeska-Trajkovska presenting the lecture.



Discussions between sessions (Prof. Mario Plebani, Dr Gilbert Wieringa, Prof. Evgenija Homšak, Prof. Dunja Rogić, Dr. Wytze Oosterhuis).



Discussion during Congress Session.



Vera Lukić presenting the lecture.



Neda Milinković presenting the lecture.



Makler stand.



Elta'90 MS stand.



Jelena Knežević presenting Workshop Makler Company.



Congress participants.



Pharmaceutical Faculty students stand.



Iva Perović presenting the lecture.



Nada Majkić-Singh presenting the Monograph Scientific Foundation »Professor Ivan Berkeš«.



Ivan Berkeš Family members during the Monograph presentation.



Nada Majkić-Singh presenting the Monograph.



Nada Majkić-Singh delivers the Monograph to Vesna Vuković, first Fund Laureate.



Nada Majkić-Singh delivers the Monograph to Iva Perović.



Nada Majkić-Singh delivers the Monograph to Miron Sopić.



Miron Sopić and Miljan Savković coordinators of the Session 7.



Gordana Dmitrašinović presenting the lecture.



Tijana Krnjeta presenting the lecture.



Nada Majkić-Singh and Tijana Krnjeta.



Gordana and Tanja Zdravković.



Snežana Jovičić, Nada Majkić-Singh and Neda Mllinković.



Participants of the Poster Sessions.



Poster session discussions.



Congress participants after the Poster Session.



Jelena Štrbac, Ljuba Štrbac and Nada Majkić-Singh during the Congress Dinner.



Branislava Mlljković, Vesna Opsenica and Ana Paković during the Congress Dinner.



Vukašin and friend (Faculty Pharmacy students) during the Congress Dinner.



Colleagues from Montenegro during the Congress Dinner.



Wytze Oosterhuis and Dunja Rogić during the Congress Dinner.



Miljan Savković and Gordana Dmitrašinović during the Congress Dinner.



Snežana Jovičić and Evgenija Homšak during the Congress Dinner.



Congress participants during the Congress Dinner.



Nina Ivanović and Teodora Tumbas, Faculty Pharmacy students during the Congress Dinner.



Congress participants during the Congress Dinner.



Nada Majkić-Singh with student musical band.



Discussion with excelent musical band.



Nada Majkić-Singh with Pharmaceutical students medical biochemists.