

Report by the BSCL Board

XXVIII. BALKAN CLINICAL LABORATORY FEDERATION MEETING XIII. NATIONAL CONFERENCE OF CLINICAL LABORATORY

SEPTEMBER 8TH - SEPTEMBER 11TH 2021

This year the Bulgarian Society of Clinical Laboratory (BSCL) was the host of the Joint XXVIII Balkan Clinical Laboratory Federation (BCLF) Meeting and XIII National Conference of the Bulgarian Society of Clinical Laboratory (BSCL), which was held in a hybrid form from September 8th to September 11th 2021 at the National Palace of Culture in Sofia, Bulgaria. Unlike all previous years, this time our annual meeting was to take place in unique situation due to COVID-19 pandemic and the local organiser and host, the Bulgarian Society of Clinical Laboratory, had to employ special efforts to overcome as much as possible the challenging problems and restrictions, including one year of postponement.

The Meeting was held under the auspices of the European federation of Laboratory Medicine (EFLM) and the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC&LM). Meeting Organising and Scientific Committees reflect not only the regional but also the truly international character of the event. Under the circumstances of the COVID-19 pandemic we were happy to welcome 133 Colleagues onsite, and another 141 online participants. Thus the total number of 274 attendees was relatively lower compared to previous BCLF meetings, but still considered sufficiently representative for our regional event.

The Meeting hybrid approach, onsite in Sofia and online, allowed present and virtual speakers and attendants to participate simultaneously. The main goal of the meeting was to bring together colleagues from all Balkan countries, to meet them with leading regional and international researchers, with world leaders, with industry professionals and other relevant experts, to discuss and update the research strategies, the technological and clinical progress in the field of laboratory medicine and its implications in clinical practice. For this reason the scientific program encompassed vast spectrum of topics delivered in 6 plenary lectures, 8 Symposia with 30 oral presentations, 4 Industrial scientific sessions with 12 reports, and 43 posters electronically available for all participants on the site of the Meeting.

During the opening ceremony we were delighted to see prof. Stoyan Danev, one of the founding fathers of BCLF and its first president, who in his emotional speech remembered the enthusiasm of the inaugurators, and the first scientific, professional and friendship building steps on the way to a nowadays grown and mature Federation. Prof. Khosrow Adeli, current president of IFCC&LM, delivered live in Sofia the opening lecture entitled "Technological Advances in Laboratory Medicine: Predicting the Lab of the Future" which became the best possible beginning of the event. Professor Adeli highlighted the special place and role of laboratory medicine as a highway for entering of research scientific advancements in clinical practice, and as a major driver of the technological transfer in medicine. In his second lecture prof. Adeli reviewed the emerging role of artificial intelligence (AI), AI-powered electronic applications and machine learning for the medical diagnostics data management.

The first plenary was delivered online by prof. Maurizio Ferrari, past president of IFCC&LM. His topic was devoted to the recent advances and the future potential of next generation sequencing – biotechnology that is "rapidly changing the landscape of genetic diagnostics, providing the ability to answer questions with heretofore unimaginable speed" and utmost clinical importance. Prof. Ferrari gave another lecture devoted to the utilization of liquid profiling for cancer management in which he reviewed the role of circulating tumor DNA and circulating tumor cells as a liquid biopsy specimen which could lead to better understanding of cancer biology, diagnosis, management, and treatment.

The second plenary lecture was devoted to the systematically neglected and critically important problem in laboratory diagnostics – the preanalytical variability. In this online presentation prof. Giuseppe Lippi, secretary of EFLM, clustered medical errors into 4 categories each of which could be affected by laboratory errors, among which "lack of standardized procedures for sample collection, including patient preparation, specimen acquisition, handling and storage, account for up to 93% of

the errors currently encountered within the entire diagnostic process". Prof. Lippi presented another lecture focussed on the assessment of high-sensitivity cardiac troponin immunoassays beyond the diagnosis of myocardial infarction.

Further, in the third plenary lecture, prof. Sverre Sandberg, former EFLM president, presented live in Sofia an update on the establishment and utility of biological variation data, and the application of the evidence based database of the EFLM Task Group on biological variation for better estimates of analytical performance, reference change values, as well as for the introduction of personal reference intervals. In another lecture prof. Sandberg, acting president of EPNET (European Porphyria Network Association) overviewed the essential role of laboratory medicine in the diagnosis and management of porphyrias.

The fourth plenary lecture was devoted to a challenging problem for the future practice of laboratory medicine, namely how to find the right balance between the flood of new technologies and professionalism. In this topic, prof. Mario Plebani advocated the need for substantial revolution in the organization of clinical laboratories and promoted the developed "manifesto" of laboratory medicine encouraging the establishment of a new generation of laboratory professionals and managers, taking the lessons learned from the COVID-19 pandemic. In the field of cardiology prof. Plebani reviewed the place of high sensitivity cardiac troponins in regard their biological variation, circadian rhythm and diagnostic algorithms.

Finally, we would like to draw the attention on the closing lecture of prof. Tomris Ozben, EFLM president-elect, which was focussed on the current and future challenges of our profession considering the need for harmonization between regulatory authorities, evidence based laboratory medicine and the ultimate demand for the introduction of advanced and integrative diagnostics increasing the visibility of medical laboratories as a first line healthcare provider. In the Symposium on cancer diagnostics and therapy, prof. Ozben presented the role of biotechnology for the investigation of epigenetic changes including DNA methylation, chromatin remodelling, histone modifications and non-coding RNAs as factors leading to cell damage and disease.

Following the accepted BCLF Meeting rules and requirements, all BCLF national societies participated in the scientific program with at least three oral presentations ordered and completed in 8 Symposia which covered the most important and actual aspects of laboratory medicine: quality control, laboratory management, mass spectrometry, cardiology, cancer diagnostics and therapy, neurologic diseases, endocrinology and metabolism, fertility, pregnancy, porphyria diagnostics, haematology, inflammation and others. The XXVIII BCLF meeting and the XIII BSCL conference were marked with significant attendance of medical biochemists and laboratory specialists from Greece, North Macedonia, Romania, Albania, Turkey and Serbia. Industrially sponsored sessions were fully scientifically oriented and were focussed on new analytical developments and technologies, improved diagnostics in cardiology, infectious diseases, fertility, pregnancy, women's health and haematology. Poster presentations further demonstrated the scientific and professional achievements of the regional clinical laboratory scientists in the fields of advanced analytical techniques, molecular biology and molecular diagnostics, endocrinology and metabolism, gastrointestinal, cardiovascular and infectious diseases, pregnancy, haematology and haemostasis, inflammation, inflammatory and cerebrospinal fluid biomarkers, trace elements, therapeutic drug management, vitamins, electrolytes, and others.

To wrap up, we appreciate everyone who contributed to make the Joint 2021 BCLF / BSCL Meeting such a success. When we look at the almost 30 years lasting history of the Federation, we are proud that we have grown this much since the beginning, and have reached scientific and professional level that forms a stable platform for our healthcare laboratories to stay on the front line of the efforts to provide the best possible patient care. Our goal will always be to encourage young scientists and future generations to keep the line of achievements we have already reached, and to open new horizons of science and clinical practice for the success of laboratory medicine and the goodwill of our patients. We hope that the abstracts and articles published in this special supplement issue of the Journal will be an inspiration and stimulus for the entire scientific and professional medical laboratory community.

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The presentation “Biochemical and Genetic Markers in Dementias”
by Professor Christos Kroupis, Greece.



Professor Sverre Sandberg at the XXVIII BCLF meeting & the XIII BSCL conference.



The XXVIII BCLF meeting and the XIII BSCL conference were marked with significant attendance of medical biochemists and laboratory specialists.



The BSCL board members: Front row (from left to right): Dr. Veselina Koleva, Assoc. Prof. Dr. Milena Velizarova, Assoc. Prof. Dr. Yana Bocheva, Assoc. Prof. Dr. Marianka Genova, Dr. Krasimira Nancheva, Assoc. Prof. Dr. Tanja Deneva. Back row (from left to right): Dr. Nedjalko Kalachev, Prof. Dr. Dobrin Svinarov.