Conference on Regenerative Medicine and Tissue Engineering for Osteochondral Diseases – From Laboratory to Clinic

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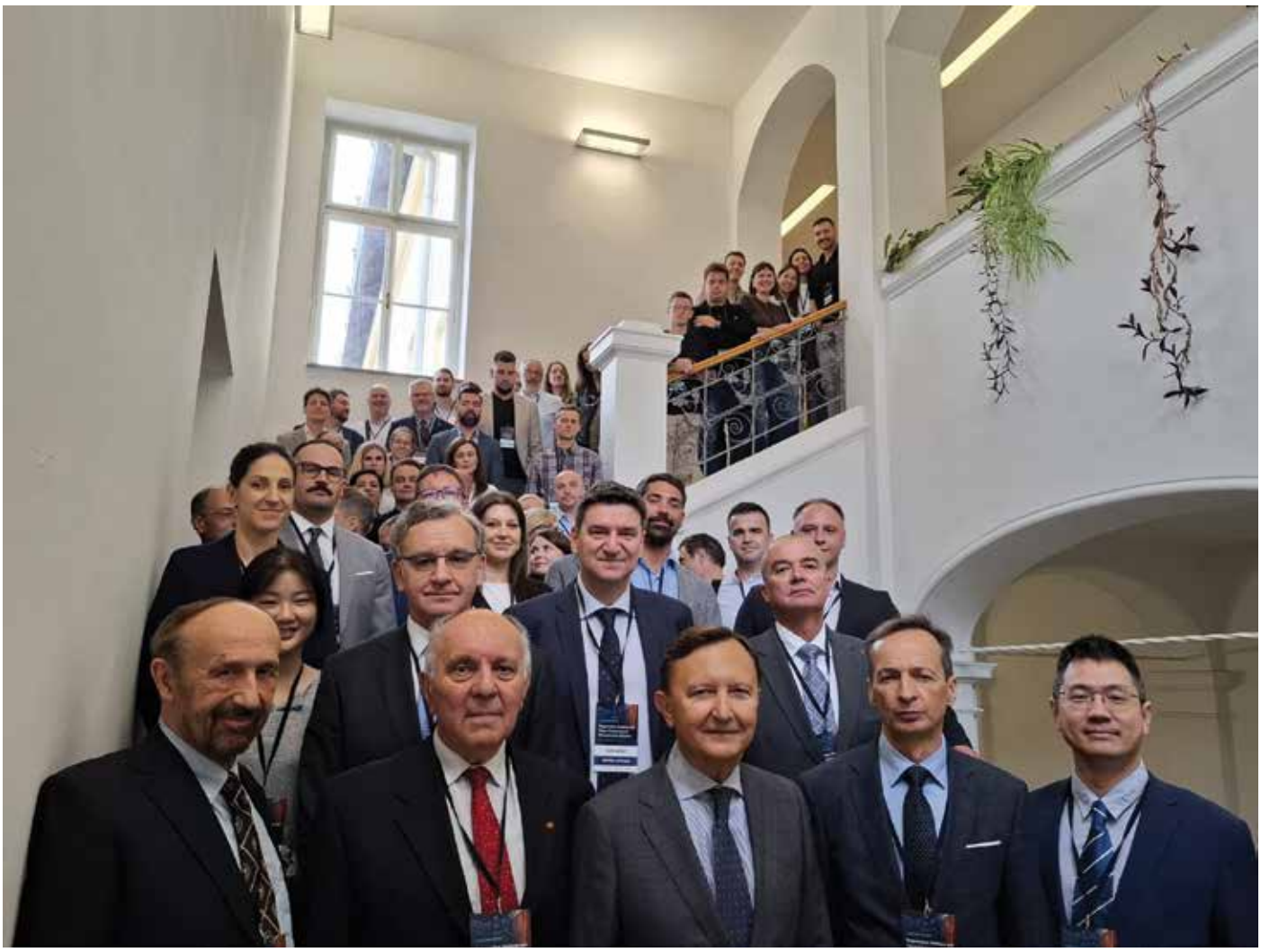
The Ministry of Science, Education and Youth, Republic of Croatia, in cooperation with the Department of Medical Sciences of the Croatian Academy of Sciences and Arts (CASA) organized the Conference of Regenerative Medicine and Tissue Engineering for Osteochondral Diseases "From Laboratory to Clinic" on the basis of the Partner – Institute program between the Faculty of Veterinary Medicine, University of Zagreb and Wenzhou Institute, University of Chinese Academy of Sciences. The conference was held on 15th of June 2026 in the Library Hall of the Croatian Academy of Sciences and Arts (CASA), Zagreb.

The Conference brought together leading experts from China, France, Switzerland, Lithuania, Slovenia, United States and Croatia with the aim of promoting interdisciplinary collaboration and advancing knowledge in the rapidly evolving field of regenerative medicine and tissue engineering in both human and veterinary medicine. Words of welcome were addressed by the Head of the Department of Medical Sciences of Croatian Academy of Sciences and Arts and Academician Vida Demarin, Honorary President of the Conference and Academician Marko Pećina, President of the Scientific Board and Academician Slobodan Vukičević and Chair of the Or-



ganizing Committee and Academician Dražen Matičić. The moderators of the Conference were Academician Dražen Matičić, Full Professor Dražen Vnuk, and Assistant Professor Petar Kostešić.
The Conference was opened by Domagoj Delimar, Full Professor at the School of Medicine, University of Zagreb who emphasized the challenges associated with acetabular bone defects and discussed future perspectives in regenerative medicine for complex orthopedic reconstructions. Professor Mislav Jelić followed with a lecture on current treatment options for knee cartilage pathology, ranging from focal chondral lesions to osteoarthritis.

An international perspective on biomaterials and tissue engineering was provided by Professor Huaqiong Li, who presented advances in low-immunogenic naturally derived biomaterials for tissue engineering applications. Xiaofan Guo introduced an innovative AI-based wearable system for fall detection and indoor localization in elderly and rehabilitation care, demonstrating the growing integration of artificial intelligence into healthcare.
Professor Inga Urlić presented recent developments in advanced three-dimensional bone and cartilage tissue modelling and emphasized the importance of robust in vitro evaluation for accel-



erating the translation of regenerative technologies into clinical practice. Professor Alan Ivković discussed preclinical large animal evidence supporting the expansion of the "Nose2Knee" concept for the treatment of osteoarthritis.

Nikola Štoković, an Assistant Professor at the School of Medicine, University of Zagreb, showcased the development of Osteogrow-C, an osteoinductive therapy for bone regeneration, illustrating the successful transition from experimental research to clinical application in veterinary patients. Assistant Professor Petar Kostešić further emphasized the importance of animal models as a gateway for knowledge transfer between human and veterinary medicine.

The afternoon session focused on orthobiology and veterinary applications of regenerative medicine. Sabina Fetić, DVM, presented current trends in orthobiology, highlighting the role of platelet-rich plasma, stem cells and biologically active scaffolds in musculoskeletal treatment. Assistant Professor Dalia Juodžentė, explored the use of platelet-rich plasma in managing non-union fractures, while Federico Longo, DVM, discussed different approaches to treating osteochondritis dissecans lesions in dogs.

Further lectures addressed diagnostic and surgical management of osteochondral diseases in dogs, pain management strategies in veterinary patients and clinical perspectives on common joint diseases in companion animals. These lectures, delivered by Milan Matko, DVM, Petra Dmitrović, PhD, ECVAA Candidate and Marko Stejskal, PhD, DACVS provided practical insights into the application of regenerative therapies into everyday clinical practice.

The Conference addressed key topics in regenerative medicine and offered a comprehensive multidisciplinary approach to osteochondral diseases. It provided an exceptional platform for exchanging knowledge and fostering collaboration among experts from diverse scientific and clinical backgrounds.

Scientific meetings of this kind play a crucial role in advancing translational research and improving patient care. The opportunity to host distinguished international speakers and leading experts in regenerative medicine was a great honor, and we look forward to continued collaboration through future high-quality scientific events.