

## The corresponding membership (the Charter) of the Croatian Academy of Sciences and Arts was awarded to Prof Dr Kristijan Ramadan from the University of Oxford

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The corresponding membership (the Charter) of the Croatian Academy of Sciences and Arts (“Hrvatska akademija znanosti i umjetnosti”; HAZU) was awarded to Prof Dr Kristijan Ramadan at the individual ceremony in the Palace of the Croatian Academy of Sciences and Arts in Zagreb on Tuesday, 27<sup>th</sup> September 2022. Prof Ramadan is a prominent Croatian scientist working at the Medical Research Council Oxford Institute for Radiation Oncology, Department of Oncology, University of Oxford, United Kingdom. He holds degrees in Veterinary Medicine (DVM), Veterinary Pathology (MSc) and PhD in Biochemistry and Molecular Biology. He graduated from the Faculty of Veterinary Medicine University of Zagreb.

He was elected as a corresponding member (fellow) in November 2020, but due to the COVID-19 pandemic the ceremony was postponed. The membership was handed over by **Academician Velimir Neidhardt**, the President of HAZU. Several regular members of the Department of Medical Sciences of the Academy as well as some of Prof Ramadan’s relatives and friends were present at the ceremony.

President Velimir Neidhardt gave an inspirational speech focusing on the important aspects of HAZU for Croatian culture, science and arts. The president has also discussed what are the current challenges for both, HAZU and the Croatian society, and how HAZU is going to contribute to further improve Croatian political and scientific development, and thus make Croatia a better country for all its people.

After the ceremony, Prof Ramadan gave the lecture entitled “Ruijs-Aalfs syndrome: from the clinics to the laboratory and back”. The lecture was organized by the Committee of Animal and Comparative Pathology of the Department of Medical Sciences. Before the lecture, Academician Josip Madić, the Chairman of the Committee, introduced Prof Ramadan to the audience. He emphasized Prof Ramadan’s discoveries and achievements that make him an internationally recognized scientist.

In short, Prof Ramadan gave an overview of his research with the focus on his recent co-discovery of Ruijs-Aalfs Syndrome (RJALS). RJALS is characterized by genomic instability, accelerated ageing, and hepatocellular carcinoma due to DNA replication defects and accumulation of DNA-protein crosslinks (DPCs). This disease is caused by biallelic and monogenic mutations in SPRTN gene/protein. SPRTN emerged as a DNA-dependent metalloprotease and the core enzyme for DPC repair. DPCs are common DNA damages that

constitute a major threat to genome stability. DPCs are constantly formed in cells either by endogenous metabolic products, e.g., formaldehyde or commonly used chemotherapeutic drugs. Despite the essential importance of DPCs for genome stability and chemotherapy response, the mechanisms by which DPCs are repaired are poorly understood. Prof Ramadan discussed how the knowledge of RJALS and SPRTN metalloprotease can help us to better understand processes related to chemotherapy resistance and ageing.



*Figure 1. Prof Dr Kristijan Ramadan and the President of HAZU Academician Velimir Neidhardt.*



*Figure 2. At the ceremony in the palace of the Croatian Academy of Sciences and Arts (from left to right): Prof Dr Ljubo Barbić, academicians Ivica Kostović, Dražen Matičić, Željko Cvetnić, Prof Dr Kristijan Ramadan, Academician Velimir Neidhardt - President of the Croatian Academy of Sciences and Arts, Ante Ramadan, Academician Josip Madić, Krešimir Lučić, Nataša Petrinović, Željko Petrinović, and Academician Vjekoslav Jerolimov.*