

## The 3<sup>rd</sup> Rijeka Forum on Neurodegenerative Diseases: Diagnosis and Treatment in Early Stage of Disease

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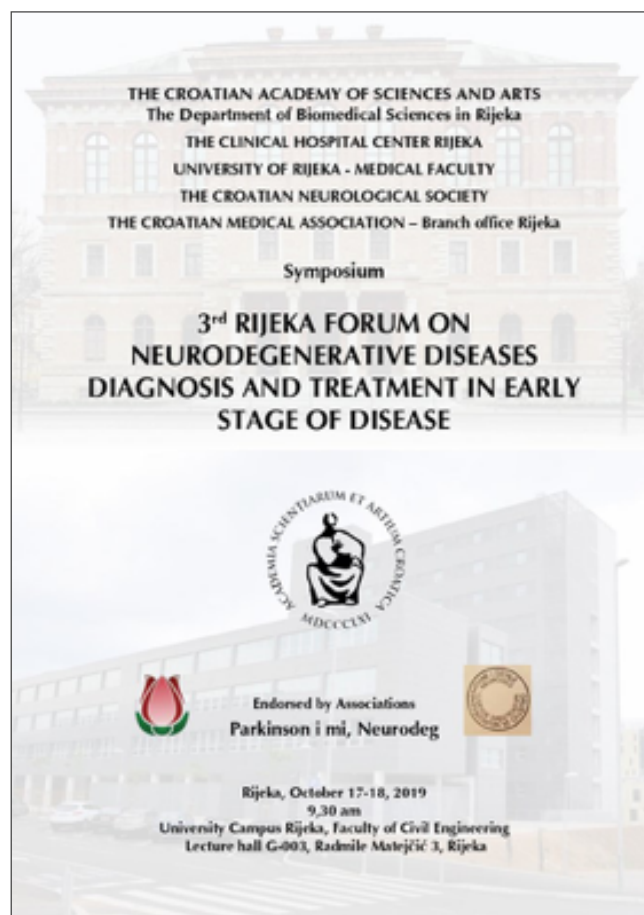
The symposium „3<sup>rd</sup> Rijeka Forum on Neurodegenerative Diseases: Diagnosis and Treatment in Early Stage of Disease“ was held in Rijeka in the campus of the University of Rijeka (October 17-18, 2019) under the patronage of the Department of Biomedical Sciences in Rijeka of the Croatian Academy of Sciences and Arts, Medical Faculty of the University of Rijeka, the Croatian Neurological Society and the Rijeka branch of the Croatian Medical Association were co-organizers.

Three years ago, in discussions with Dr. Vladimira Vuletić, Chairman of the Department of Neurology at the Clinical Hospital Center in Rijeka, we came to the idea of organizing meetings in Rijeka, on the topic of neurodegenerative diseases. The idea was to organize meetings on an annual basis, each year bringing new aspects, approaches, and breakthroughs in this flourishing clinical and scientific field, set to be held under the auspices of the Croatian Academy of Sciences and Arts. Our intention was that meetings (called as Rijeka Forum) follow translational approach in the field of neuroscience. This is the same approach we used as the main idea and one of the principal goals of all meetings held in Rijeka in the last six years in the organization of Department of biomedical sciences in Rijeka of the Croatian Academy of Sciences and Arts. The 3<sup>rd</sup> Rijeka Forum is showing that we already established the tradition.

This year 17 lecturers from 5 countries, experts in the field of neurodegenerative diseases, delivered riveting lectures focusing on the aspects of early diagnosis and treatment, as well as prevention of the debilitating chronic neurological diseases. The symposium had free attendance and attracted a wide audience, from graduate and postgraduate students, to basic and clinical medicine scientists.

The symposium was opened with introductory talks of the president of the Scientific committee, Daniel Rukavina, full member of Croatian Academy and the Head of the Department of Biomedical Sciences in Rijeka and Vladimira Vuletić, president of the Organizing committee and head of the Department of Neurology at the Faculty of Medicine Rijeka and head of the Clinic of Neurology at the Clinical Hospital Center Rijeka. Furthermore, welcome addresses were given by Zdravka Poljaković, President of the Croatian Neurological Society, Davor Štimac, Head of the Clinical Hospital Center Rijeka, Tomislav Rukavina, Dean of the Medical Faculty of the University of Rijeka and Vida Demarin, Secretary of the Department of Medical Sciences and full member of the Croatian Academy of Sciences and Arts.

The symposium was split into three main topics, first en-



compassed the genetic, cerebrospinal fluid and pathological determinants of neurodegenerative diseases. This was followed by the early diagnostic and prevention, while the last topic was the clinical aspect and treatment of neurodegenerative diseases. The opening lecture of the first topic was held by the esteemed professor John Hardy, of the UCL Institute of Neurology (London, UK), who spoke about the genomics of neurodegeneration and enlightened the rapid progress in understanding the genetic background of these diseases that happened in the last ten years. He was followed by Borut Peterlin (University Clinical Center Ljubljana, Slovenia), who spoke about a personalized approach to patients with Parkinson's disease based on their genetic background. A focus on finding the right biomarkers and connecting early preclinical research in degenerative diseases were the focus of lectures given by Kaj Blennow (Gothenburg University) and Tamas Revesz (University College London). The second topic, focused on diagnostics and prevention, was opened by Vida Demarin (International Institute for



Brain Health, Zagreb), who has given an interesting and important overview of lifestyle factors in prevention of cognitive decline. This was followed by a lecture from Paolo Manganotti (University of Trieste), who focused on the clinical neurophysiology measures in neurodegenerative disorders. The next lecture was given by Alessandro Padovani (University of Brescia, Italy), who explained the emerging findings from TMS and DATSCAN in enlightening the early alterations in cholinergic and dopaminergic systems in Alzheimer's disease. The penultimate lecture of the first day was given by Maja Trošt (University Medical Center Ljubljana), who presented the latest findings in using PET FDG as a biomarker of early stages in neurodegenerative diseases. Finally, the day was closed by Lea Dolenc Grošelj (University Clinical Center Ljubljana, Slovenia), who spoke about sleep as an early marker for neurodegenerative diseases.

The second day of the symposium was focused to the lectures covering the clinical aspects and treatments of neurodegenerative diseases. The opening lecture by Sten Fredrikson (Karolinska Institute, Stockholm, Sweden) covered the early detection of multiple sclerosis, with some new insights on when the disease really starts. The differences, and similarities, of dementia in Alzheimer's disease and Lewy Body dementia was the topic of the lecture by Nenad Bogdanović (Karolinska Institute, Stockholm, Sweden), who was followed by Fran Borovečki (University Hospital

Centre Zagreb) with his lecture on the early diagnosis of Fronto-Temporal Dementia. Furthermore, Nataša Klepac (University Hospital Centre Zagreb) spoke about the early diagnosis of the Corticobasal Syndrome and Progressive Supranuclear Palsy, while Darko Chudy (University Hospital Centre Dubrava, Zagreb) presented his work on early deep brain stimulation in various movement disorders. Vladimira Vuletić (Clinical Hospital Center Rijeka) presented a thorough overview of the possible biomarkers in early Parkinson's disease. The final topic of the symposium was closed by two lectures focusing on Rett syndrome, which were given by two experts, Leopold M.G. Curfs and Eric Smeets, from the Rett Expertise Center in Maastricht, Netherland. They spoke on the Rett syndrome in general within an European context, while also focusing on the developmental regression aspects of the disease.

Overall, this international symposium had truly magnificent lectures, which were interesting for all participants. Importantly, it presented as a great occasion for young students and researchers to discuss these important topics with the leading international experts. The Fourth Rijeka Forum will be held next year, in a similar time and at the same venue of the new University Campus in Rijeka. This is a clear sign that Rijeka Forums on neurodegenerative diseases have established both tradition and international recognition.