Brain nutrition, aging and neuroplasticity – The clinical orthomolecular aspects

The state-of-the-art advances in neuroscience and anti-aging medicine show that the brain can adapt to chronic stress by increasing its neuroplasticity capacity. Neuroplasticity allows the neurons in the brain to compensate for injury and disease and to adjust their activities in response to new situations or to changes in their environment. The aging brain can adapt through cellular defense's mechanisms, such as DNA repair, release of neurotrophins (BDNF, IGF-1) and promotion of neurogenesis and also through the capability of the dendrites and synapses to change in response of the environmental demands, including nutrition. The brain's perfect immunity regulation by the microglia and the central nervous system's anti-oxidant capacity enhancement depends on several concepts, including the best nutritional foods and supplements, hormones, physical activity and learning procedures. The orthomolecular medicine establishes the use of the correct molecules to keep the perfect physiological and biochemical function of the body. The aim of this talk is to reveal the biochemical and immunological mechanisms behind the brain aging and to address the best clinical orthomolecular protocols to prevent the neurodegenerative diseases and stimulate the neuroplasticity with the use of dietary functional substances, natural immunemodulatory molecules and bio-identical hormones.

Biography
Roni Lara Moya completed his Bachelor’s in Biomedicine from University of Mogi das Cruzes, Sao Paulo and a Specialization in Anti-Aging Medicine from Seville University, Spain. He completed Master of Science in Molecular and Cellular Immunology and Biology in University of Coimbra, Portugal and a Master of Science degree in Clinical Advanced Nutrition, University of Barcelona, Spain and PhD in Biomedicine and Immunology, Gulbenkian Institute of Science and Coimbra University. He is a Coordinator of Orthomolecular Medicine of ReGenera Research Group for Aging Intervention. He is a Professor and Director of the Graduation Program in Orthomolecular Therapy, CESPU University, Portugal and Scientific Advisor for Nutraceuticals and Cell Therapy Companies in Europe.

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