The role of the kynurenine pathway of tryptophan metabolism in neurodegenerative disorders: experimental and clinical evidence

Abel Santamaría

*Laboratorio de Aminoácidos Excitadores, Instituto Nacional de Neurología y Neurocirugía Manuel Velasco Suárez, S.S.A., Mexico*

Kynurenine pathway (KP) is catching the attention in the biomedical research field as this catabolic route for tryptophan degradation and NAD+ formation not only produces neuroactive metabolites with different biological properties —including pro-oxidant and antioxidant activities—, but it is also involved in different neurological disorders. Therefore, intensive research on this pathway is bringing integrative hypothesis on those mechanisms underlying neurodegenerative processes in the central nervous system (CNS), thus allowing the design of potential therapies for disorders involving excitotoxic, oxidative and inflammatory components. This lecture intends to provide relevant information on the role of KP in several CNS disorders, offering recent information on the different biological properties of the neuroactive metabolites of this