

Anti-oxidant and anti-inflammatory effects of flavonoids in neurodegenerative diseases

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Several studies reported that oxidative stress and inflammation contribute to the pathobiology of neurodegenerative disorders such as Parkinson's disease (PD) and Alzheimer's disease (AD). Both of these disorders are characterized by deposition of insoluble protein aggregates such as α -synuclein in PD and β -amyloid in AD. Though the initial trigger of these two diseases is distinct and largely unknown, they both shared common neuroinflammation and oxidative stress components. Investigating new ways to slow or reverse the neurodegenerative pathways involved, will guide new strategies for drug development. The present in-vitro studies, investigated the mechanisms underlying the neuroprotective effects of several anti-inflammatory flavonoids, and compared them to either Ibuprofen in the MPTP-model of PD, or tigecycline in the LPS-model of AD. Our present data support a therapeutic potential for flavonoids, and tigecycline in the treatment of the neuroinflammation and the oxidative stress associated with PD and AD.

Biography

Kenza Benzeroual has completed her PhD at the University of Montreal, Montreal, Canada, and a postdoctoral fellowship from Columbia University and the New York Psychiatric Institute. She's a faculty at the Arnold and Marie Schwartz College of Pharmacy-Long Island University, Brooklyn, NY, teaching Pharmacology and Pharmacogenomics to the PharmD and Graduate Students, as well as pursuing research in the area of neurodegeneration.

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