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Effects on flavonoids with lipid-modulating properties on ApoE4-induced A β production

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Alzheimer's disease is characterized by deposition of insoluble protein aggregates of amyloid beta (A β). Amyloid precursor protein (APP) is the central protein involved in AD pathology as it serves as the precursor for A β generation.

The initial trigger of the disease is largely unknown, but several studies reported that the apolipoprotein (apo) E4 is a major risk factor for AD. Others have suggested that ApoE4 has isoform-specific effects on the deposition or clearance of A β peptides. Thus, 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 effects of cholesterol modulating agents and flavonoids on ApoE4-induced APP processing into A β peptides in neuronal cells stably transfected with human wild-type APP695. Our present data support a therapeutic potential for these agents in inhibiting ApoE4-induced A β production.

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. Dr. Benzeroual is 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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