

Special Issue

Insulin Resistance in Neurodegenerative Diseases

Message from the Guest Editor

Metabolic diseases are associated with neurodegeneration and cognitive dysfunctions. The onset of peripheral and central insulin resistance conditions is proposed as the primary link among metabolic and neurodegenerative diseases. Brain insulin resistance induces impairment of insulin signaling, activation of oxidative stress, ER stress, mitochondrial and lysosomal dysfunction, lipid peroxidation, inflammation and alteration of synaptic plasticity, and mechanisms leading to loss of neurons. A healthy lifestyle can reduce or prevent the risk of these dysfunctions. Dietary supplements of natural origin, rich in antioxidants and anti-inflammatory molecules, can significantly impact metabolic and neuronal dysfunction and related comorbidity.

The Special Issue aims to collect original research articles and full review papers focused on, but not limited to, the mechanisms inducing peripheral and central dysmetabolism. Contributions related to signaling, organelles, mechanisms, and molecules involved in homeostasis and metabolic and neurodegenerative disease dysfunction are welcome. The potential protective role of bioactive molecules and functional food is also considered.

Guest Editor

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