



The Molecular and Cellular Mechanisms of Neurodegenerative Diseases

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Message from the Guest Editor

Neurodegenerative diseases are a group of age-related complex diseases in the central nervous system including Alzheimer's disease (AD), Parkinson's disease (PD), frontotemporal lobar degeneration (FTLD), amyotrophic lateral sclerosis (ALS), Huntington's disease (HD), and prion diseases. They are characterized by protein aggregates in particular cell types and brain regions, selective neuronal loss, neuroinflammation, progressive degeneration of the nervous system, and neurobehavior changes. Over the last decade, our understanding of neurodegenerative diseases has witnessed significant advances, especially at the molecular and cellular levels, although there are no effective therapeutics to prevent or halt these devastating diseases to date.

The goal of this Special Issue is to gain a better understanding of the cellular and molecular mechanisms in the pathogenesis of different neurodegenerative disorders, with a focus on protein homeostasis, unfolded protein response, synaptic dysfunction, neuroinflammation, alterations in brain metabolism, mitochondrial dysfunction, and oxidative stress mechanisms at the molecular and cellular levels.





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Message from the Editor-in-Chief

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