

Special Issue

Targeting Mitochondrial Dysfunction in Neurodegenerative Diseases

Message from the Guest Editors

Mitochondria are essential organelles responsible for cellular energy production. Recent research has revealed the relevance of therapeutic strategies targeting mitochondrial alterations. Such strategies may include anti-oxidant approaches and may also focus on other mechanisms such as mitochondrial fission/fusion homeostasis and the elimination of damaged mitochondria (mitophagy). This Special Issue aims to collect research and review articles proposing innovative studies analyzing the role of mitochondrial biology in neurodegeneration. We welcome articles focusing on the role of mitochondrial DNA mutations, altered calcium homeostasis related to mitochondrial damage, impaired mitochondrial fission/fusion and its effect on the induction of inflammation and oxidative stress, and other mitochondrial alterations in relation to neurodegenerative diseases. Research exploring therapeutic strategies targeting mitochondria in neurodegenerative diseases, the effect of the gut microbiota on mitochondrial function, and the gut–brain axis is also of great interest for this Special Issue.

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Life (ISSN 2075-1729) is an international, peer-reviewed open access journal that publishes scientific studies related to fundamental themes in life sciences. Some papers are published individually, while others are submitted for inclusion in special issues with guest editors. You are invited to contribute a research article, essay, or a review to be considered for publication.

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