# Special Issue

# Exploring Mitochondrial Dysfunction and Neuroinflammation in Neurodegeneration for New Therapeutic Advances

## Message from the Guest Editor

Neurodegenerative diseases remain among the leading causes of irreversible disability and neurological impairment worldwide. Despite significant advancements in our understanding of the molecular mechanisms involved, effective therapies that target the underlying causes of neurodegeneration remain limited. Mitochondrial dysfunction and neuroinflammation have been increasingly recognized as key contributors to the progression of these diseases, yet no effective neuroprotective treatments have been introduced in recent years. Current therapies primarily focus on symptom management, with few advancements in neuroprotective drugs since their introduction decades ago.

This Special Issue invites original research articles and reviews that explore the molecular pathways linking mitochondrial dysfunction, neuroinflammation, and neurodegeneration in the CNS. We aim to shed light on how these mechanisms contribute to diseases like glaucoma, Alzheimer's, Parkinson's, ALS, multiple sclerosis, and other CNS neurodegenerative disorders. Studies at the cellular, organ, or in vivo levels, as well as translational research with clinical relevance, are encouraged.

## Guest Editor

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## Deadline for manuscript submissions

31 October 2025

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*Cells* has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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