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## Recent Research on the Role of Mitochondria in Neurodegeneration

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Deadline for manuscript submissions:

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### Message from the Guest Editor

Dear Colleagues,

Neurodegeneration is a spectrum of diseases. The most common forms are Alzheimer's, Parkinson's and Huntington's disease, multiple sclerosis, and amyotrophic lateral sclerosis. While neuronal loss contributes to the pathology, other cell types located in the brain including microglia and astrocytes play their roles in disease modification. Recently, the intestinal microbiome has been described to influence brain disorders through the brain–gut axis, which illustrates the complexity of disease initiation and spread. At the molecular level, the emergence of abnormal proteins and lipids, derived from gene mutations or pathogenic processes, affects cellular physiology, and the function of organelles. Inadequate quality control and clearance of damaged lipids, proteins, and organelles exacerbate the pathogenic conditions leading to neuronal cell death. Mitochondrial alteration has been shown to be involved in multiple and key steps in neurodegeneration such as mitophagy, energy supply, calcium homeostasis, and apoptosis. This review aims at summarising some novel understanding of the role of mitochondria in mediating and protecting from neurodegeneration.



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**Special** Issue



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