

Special Issue

Mitochondria as Therapeutic Target for Acute Brain Pathologies

Message from the Guest Editors

Mitochondria not only play a central role in many signalling pathways associated with numerous pathologies; they are involved in the mechanism of neuroprotection accompanied with reactive oxygen species signalling pathways, thus making this organelle the main target of any anti-ischemic protective or post-injury therapeutic strategy. Therefore, modulating mitochondrial function has emerged as an attractive therapeutic strategy for a range of brain pathologies to promote development of drugs based on fundamental discoveries in this area. This Special Issue aims to gather original research studies as well as perspectives and reviews that provide future directions for and advances in the use of mitochondria as the target for therapeutic approaches in treatment of several diseases, which includes pharmacological drugs acting via the regulation of: calcium and redox homeostasis, permeability transition pores, mitochondrial dynamics and biogenesis, mitophagy, mitochondrial preconditioning, intercellular transport of mitochondria, and mitochondrial transplantation.

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