



Molecular Mechanisms and Pathophysiology of Cerebral Ischemia

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Deadline for manuscript
submissions:
closed (31 May 2022)

Message from the Guest Editor

Cerebral ischemia is the leading cause of death worldwide. Despite great efforts to develop potential treatments, the molecular and cellular mechanisms of cerebral ischemia are not fully understood.

Diverse mechanisms of pathophysiological events in ischemic damage have been suggested, including the activation of glutamate receptors, a sustained increase in intracellular calcium, oxidative stress caused by free radicals, and the activation of resident microglia related to neuroinflammatory reactions. In addition, the dysfunction of cells related to the blood–brain barrier (BBB), including endothelial cells, astrocytes and pericytes, as well as microglia, is also suggested as a possible mechanism of ischemic injuries.

This Special Issue aims to study the control or modulation of diverse pathways during or after ischemic injuries at the molecular and cellular levels to prevent, attenuate or heal ischemia damage following various brain ischemic insults.





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Message from the Editor-in-Chief

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