



Molecular Mechanisms and Pathophysiology of Acute Stroke

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Deadline for manuscript
submissions:

closed (31 January 2022)

Message from the Guest Editors

Dear Colleagues,

Stroke remains a leading cause of death and disability and has a complex pathophysiology. Increasing evidence suggests that the brain is exquisitely sensitive to even short-duration ischemia, and that multiple mechanisms are involved in the tissue damage that results from cerebral ischemia. Ischemic stroke initiates a cascade of events including ATP depletion, ionic dysregulation, increased release of glutamate, excess production of free radicals, as well as edema and inflammation; all these events eventually contribute to cell death.

The goal of this Special Issue is to provide a critical overview of the underlying factors involved in stroke-related brain injury, especially the role of cell signaling in excitotoxicity, inflammation, apoptosis, and the newly described types of cell death such as ferroptosis. Gene and protein expression profiles after stroke and neurogenesis, angiogenesis, and neuroplasticity are other important features in stroke, and should lead to a better understanding of the pathophysiology of acute stroke.

We warmly welcome submissions, including original articles and reviews, on these hot topics.





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Message from the Editor-in-Chief

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