

Special Issue on Cellular and Molecular Mechanisms of Oxidative Stress in Stroke

CALL FOR PAPERS

According to a report from the World Health Organization (WHO), stroke now is considered as the second leading cause of death and accounts for about 9% of deaths worldwide each year. It usually causes neurological deficits to patients, threatens people's health, and increases the burden of medical expenses. Thus, new treatments are urgently needed to improve prognosis and minimize complications.

Studies have found that reactive oxygen species (ROS) have been implicated in brain injury induced by ischemic stroke. There is a rapid increase in the production of ROS immediately after acute ischemic stroke. This overwhelming antioxidant defence would cause further tissue damage. These ROS can damage cellular macromolecules leading to autophagy, apoptosis, and necrosis. However, current measures to protect the brain against severe stroke damage are insufficient. Thus, it is critical to investigate antioxidant strategies that lead to the diminution of oxidative injury.

The aim of this Special Issue is to collate any manuscripts related to the mechanisms involved in ROS generation, the role of oxidative stress in the pathogenesis of ischemic stroke, and the novel therapeutic strategies to be tested to reduce cerebral damage.

Potential topics include but are not limited to the following:

- ▶ Antioxidant strategies that alleviate oxidative injury after stroke
- ▶ Brain haemorrhage and oxidative stress
- ▶ Cell death mechanisms and oxidative stress
- ▶ Endoplasmic reticulum stress and oxidative stress in stroke
- ▶ Genetics of oxidative stress in stroke
- ▶ Global and neonatal brain injury and oxidative stress
- ▶ Neuroinflammation and oxidative stress
- ▶ Novel therapeutic strategies to reduce cerebral damage in stroke
- ▶ Oxidative stress and arteriosclerosis
- ▶ Oxidative stress and lifestyle disease in stroke
- ▶ Oxidative stress and proteasome dysfunction in stroke
- ▶ Oxidative stress and vascular dementia
- ▶ Oxidative stress biomarkers in stroke
- ▶ Oxidative stress mechanisms in stroke
- ▶ Stem cells and oxidative stress in stroke
- ▶ Surgical treatment and oxidative stress

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.hindawi.com/submit?specialIssue=879568>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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