

Special Issue

The Latest Exploration of Cerebrovascular Diseases: From Preclinical Research to Treatment

Message from the Guest Editors

Preclinical studies have delved into the intricate mechanisms of cerebrovascular diseases, uncovering critical insights into risk factors, genetic predispositions, and molecular pathways.

On the diagnostic and treatment front: novel, non-invasive, and quantitative imaging techniques to assess brain hemodynamics and collateral vessel status through innovative MRI methods; cutting-edge therapies, such as neuroprotective drugs and advanced endovascular techniques, are showing promise in reducing the impact of strokes and other cerebrovascular events. Regenerative medicine, including stem cell therapy, offers hope for repairing brain damage and restoring function. Furthermore, personalized medicine is gaining traction, with treatments tailored to the individual's genetic and clinical profile.

Integrating artificial intelligence and machine learning revolutionizes research and clinical practice, enabling more precise diagnosis, disease progression prediction, and treatment strategy optimization.

This multi-faceted approach, from preclinical discoveries to personalized treatments, signifies a new era in the fight against cerebrovascular diseases.

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Deadline for manuscript submissions

closed (26 September 2025)



Brain Sciences

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.6
Indexed in PubMed



mdpi.com/si/208123

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