Special Issue

Dynamic Vascular-Glial-Neuronal Interactions in Health and Disease

Message from the Guest Editor

Dynamic crosstalk interactions among components of the neurovascular unit (NVU) maintain brain homeostasis. Importantly, neural and glial-derived signals regulate cerebral blood flow and the energetic demands of the brain. Impairments in these key constitutive processes uncouple communication at the NVU, impair cerebral perfusion, increase inflammation, and lead to progressive neurodegeneration. This Special Issue seeks papers related to how disease processes impact brain hemodynamics, perfusion, and metabolism. Highlights on the importance of brain region specificity, on circuit connectivity, as well as studies addressing the molecular mechanisms underlying cell-specific crosstalk in health and disease are welcome. Keywords:

- neurovascular coupling
- neurovascular unit
- astrogliosis
- microgliosis
- intercellular crosstalk
- vascular function
- ion channels
- inflammation
- blood–brain barrier integrity
- calcium

Guest Editor

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Deadline for manuscript submissions

closed (10 October 2021)

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About the Journal

Message from the Editor-in-Chief

Neuroglia covers the critically important functions of the diverse range of cells within the nervous system that are collectively called glia. Our journal focuses on the development, function, and pathology of glia in the central and peripheral nervous systems, as well as how these cells can be used therapeutically to repair injuries and diseases of the nervous system. The journal welcomes research using the latest in vitro and in vivo animal and human research, with a view to its translation into potential human therapies.

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