neuroglia

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Dynamic Vascular-Glial-Neuronal Interactions in Health and Disease

Guest Editor:

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Deadline for manuscript submissions:
closed (10 October 2021)

Message from the Guest Editor

Dear Colleagues,

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