



Cellular Biology of Brain Angiogenesis

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Message from the Guest Editors

At the embryo stage, the development of brain vasculature includes three different phases: vasculogenesis, angiogenesis and arterial specialization. Specific molecular events selectively drive each phase. Several growth factors and neurotropic molecules secreted by endothelial, glial and nervous cells act in a paracrine manner, leading to the correct neurovascular development. The perturbation of pathways controlling brain vascular homeostasis results in aberrant vessel morphogenesis and congenital vascular malformation development.

This Special Issue aims to collect research articles, reviews and communications focusing on mechanisms related to brain angiogenesis in both physiological and pathological conditions, as well as those related to oxidative damage. Moreover, submission of manuscripts describing the regulation of blood–brain barrier permeability and the cross-talk at the neurovascular unit is also encouraged. In this context, reports of single-cell transcriptomics, ATAC and methylome analysis can be considered for publication. Studies performed on human samples, cell lines and animal models can be considered.





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Message from the Editorial Board

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