

Special Issue

Aquaporins in Brain Disease

Message from the Guest Editors

The expression of several aquaporins has been reported in the brain of mammals. Their functioning, particularly for AQP4 and AQP1, has been associated with facilitating the flow of water through the brain compartments (blood, interstitial space, and CSF) and plays an important role in CSF homeostasis. Furthermore, in different brain pathological conditions ranging from acute brain injuries (stroke, traumatic brain injury), to edema, to autoimmune demyelinating disease such as NMO, a key role for AQP4 has been indicated. Previous evidence indicates that brain AQPs may be involved in cell migration, angiogenesis, and human brain tumor growth, again making these proteins a potential therapeutic approach by antagonizing their biological activity. Papers related to any aspect of aquaporin physiology and expression in the CNS, biochemistry, and molecular biology aspects of brain AQPs, neurological diseases, and/or animals model relating AQPs to brain pathology will be considered for this Special Issue. Experimental and up-to-date review articles and commentaries are also welcome.

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Deadline for manuscript submissions

closed (15 November 2023)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/131781

*International Journal of
Molecular Sciences*
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