



Astrocyte-Endothelial Interactions at the Blood-Brain Barrier 2.0

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The blood–brain barrier, which is formed by the brain microvascular endothelial cells penetrating the brain and spinal cord of most mammals and other organisms with a well-developed CNS. Maintaining direct contact with the brain tissue astrocytes, help form a BBB by secreting chemicals that regulate how capillary endothelial cells transfer substances into the CNS from the blood. Thus, astrocyte-endothelial interactions are crucial for a precisely adjustable mechanism responsible for reliable neuronal signaling within the functional neurovascular unit. Specific interactions between the brain endothelium and astrocytes are achieved through secretion of various cytokines. In addition to tight junctions between endothelial cells, the BBB shields the brain against toxins and immune cells via paracellular, transcellular, transporter, and extracellular matrix proteins.

This Special Issue is dedicated to all aspects of interactions between endothelial cells and astrocytes in health and disease at the level of the blood–brain barrier.

Prof. Dr. Dariusz Szukiewicz
Guest Editor





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Message from the Editor-in-Chief

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