

Special Issue

Glial-Neuronal Interactions in Neurological Disorders: Molecular Mechanisms and Potential Points for Intervention

Message from the Guest Editor

The central nervous system (CNS) function depends on both neurons and glial cells, and the interactions between these cells play critical roles in the functionality of the healthy CNS. However, genetic, molecular, and epidemiologic studies have also revealed the prominent and often causative roles of glial-neuronal interactions in the development or progression of many common neurodegenerative and neurodevelopmental disorders. Accumulation of misfolded proteins, impairment in protein trafficking and energy metabolism, oxidative stress, and formation of free radicals are common features for these pathological conditions. All these pathways are strongly regulated by glial cells in the CNS that are responsible for maintaining homeostasis on the cellular, metabolic, structural, and signaling transmission level. Therefore, the main goal of this Special Issue is to reveal directions and consequences of glial-neuronal interactions for improving our understanding of the pathomechanisms as well as for the development of potential new therapies for neurological disorders.

Guest Editor

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