Special Issue

Neuroplasticity of Central Nervous System in Health and Disease

Message from the Guest Editor

Neuroplasticity represents the key feature of the central nervous system (CNS) and includes both short- and long-term adaptive synaptic changes that, in turn, modulate the activity of brain networks underlying higher brain functions. Recent advances strongly support the role of activated glial cells in the perturbation of synaptic plasticity. This condition, called maladaptive synaptic plasticity, represents the final result of a cascade of events (neuroinflammation, failure of neurovascular coupling, changes of neurotransmitters homeostasis, failure of rescue mechanisms, metabolic/mitochondrial dysfunction) leading to disruption of the complex neuroglial networks underlying neural homeostasis and connectivity within brain circuits. Accordingly, the possibility to directly modulate synaptic functions and plasticity through induction of both short- and long-term neurobiological after-effects with non-invasive brain stimulation techniques is paving the way for new therapeutic strategies in treating neuropsychiatric disorders.

Guest Editor

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Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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