



Synaptogenesis, Synaptic Plasticity and Brain Disorders

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Message from the Guest Editor

Synaptogenesis refers mainly to the formation of synaptic connections during brain development, while synaptic plasticity refers to the ability of neurons to modify the strength of their connections. Both processes have been involved in multiple brain disorders and neurodegenerative diseases. Additionally, crucial and complex neurophysiological processes are involved in the remodeling after different types of brain damage. The functional properties of the brain largely depend on the characteristics of its neurons and the pattern of synaptic connections between them. Thus, synaptic formation and synaptic plasticity dysfunction may result in brain network disorders, such as Alzheimer's disease, Parkinson's disease, autism and schizophrenia. Therefore, it is of utmost importance to understand the cellular and molecular mechanisms governing these processes, which could assist in the development of effective treatments for brain disorders.

This Special Issue welcomes submission of original manuscripts and reviews dealing with any aspect of the relationship between synaptic plasticity and brain disorders.





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