Special Issue

Mechanisms Underlying Neuronal Network Activity

Message from the Guest Editor

I would like to invite you to review the state of the art in the field of NMDA receptors and how acetylcholine can modulate brain circuits. Recent research findings suggest that acetylcholine can co-activate NMDA receptors. Acetylcholine is produced by Meynert nuclei or in cholinergic interneurons in the basal ganglia, among other cholinergic nuclei in the central nervous system. In general, glycine is proposed as a co-activator. However, in the central nervous system, explicitly in the brain cortex, glycinergic cells are not present. This discrepancy may therefore warrant further investigation. As NMDA receptors have been studied under the assumption that glycine is required for them to function, we invite you to delve deeper and address the following question: what happens if NMDA receptors do not require glycine? In this regard, we can work together to determine the actions of dopamine and serotonin based on this new approach.

Guest Editor

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