Special Issue

Molecular and Cellular Mechanisms of Synaptic Function: Neurotransmitter Release, Signal Transduction and Plasticity

Message from the Guest Editors

Brain information processing and storage, the basis of memory function, rely on the intercellular communication between neurons, polarized cells with complex cellular architecture. Synapses connecting two neurons, as well as neuro-muscular junctions, represent the major structures crucial for signal transduction mediated by neurotransmitters. We plan to address the cellular and molecular aspects of neuronal excitability, calcium homeostasis, and the mechanisms of synaptic plasticity underlying behavioural change caused by experience. We welcome the submission of work covering, but not limited to, the following topics: Synaptic processes of neurotransmitter release; Synaptic plasticity, including structural plasticity at the pre- and postsynaptic scaffold; Molecular dynamics at the synapse; Synapse and active zone assembly/maintenance; Synapto-dendritic plasticity in development and learning; Network connectivity; Cognitive and emotional responses to multisensory environmental stimuli.

Guest Editors

Dr. Anna V. Karpova

Dr. Sanja Mikulovic

Dr. Marta Maglione

Deadline for manuscript submissions

closed (15 March 2023)

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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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