

## Special Issue

# Synaptic Plasticity in Brain and Nerves: New Vistas in Health and Diseases (2nd Edition)

### Message from the Guest Editor

The efficiency of brain-dependent functions is closely related to optimal communication within neuronal networks, which is finely regulated by a myriad of adaptative processes involving interactions between the nerve and glial cell elements of the synaptic cleft. The capacity of brain plasticity that manages the network adaptation to environmental changes ranges from short-term modifications of cell morphology and functionality to long-term homeostatic responses. This Special Issue aims to showcase original articles and reviews that will improve our current knowledge on the cellular and molecular mechanisms underlying Hebbian and homeostatic forms of synaptic plasticity. The exact nature of cellular interactions and the associated signaling pathways that contribute to the modulation of synaptic strength in cerebral networks, as well as an assessment of whether these processes are ubiquitous or show region specificity in the healthy brain, remain a current topic of major interest. We also welcome articles that consider if specific alterations of synaptic adaptative processes are indicative of selective brain-related disorders that could help to initiate new preventive strategies.

### Guest Editor

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### Deadline for manuscript submissions

closed (30 June 2025)



## Cells

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## About the Journal

### Message from the Editorial Board

*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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