Special Issue

Diving Deep into Synaptic Transmission

Message from the Guest Editors

Chemical synaptic transmission is currently probed using electrophysiology, pharmacology, (cryogenic) electron and super-resolution light microscopy, and a spectrum of genetically encoded sensors and effectors. Model organisms such as worms, flies and mice are utilized; however, neurons derived from human stem cells have also been increasingly used. Synaptic structure, function and the mechanisms of synaptic differentiation and plasticity during development or aging are central topics. Furthermore, distinct activity states of synapses can be imaged with temporal resolution of milliseconds and at spatial resolution of nanometers. In addition, investigations of disease mechanisms have gained momentum. The aim of this Special Issue is to provide an overview of the most recent advancements in this field by bringing together researchers and publishing their latest studies and discoveries.

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Deadline for manuscript submissions

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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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).