



*cells*



an Open Access Journal by MDPI

## New Discoveries in Calcium Signaling-Related Neurological Disorders

Guest Editor:

**Dr. Matheus De Castro  
Fonseca**

Laboratory of Sarkis Mazmanian,  
Division of Biology and Biological  
Engineering, California Institute  
of Technology, 1200 E. California  
Boulevard, Pasadena, CA 91125,  
USA

Deadline for manuscript  
submissions:

**30 November 2024**

### Message from the Guest Editor

The ubiquitous intracellular messenger calcium ( $\text{Ca}^{2+}$ ) exerts regulatory control over virtually every activity in eukaryotic cells, particularly in excitable cells. Within neurons,  $\text{Ca}^{2+}$  assumes a crucial role in the regulation and modulation of essential physiological processes, spanning from synaptic activity to neuronal plasticity. Given the necessity for a highly refined and precise control of  $\text{Ca}^{2+}$  levels within specific cellular compartments in neurons, the organizational structure of the  $\text{Ca}^{2+}$  signaling machinery in neurons is notably intricate. The malfunctioning of the  $\text{Ca}^{2+}$  signaling pathway, which oversees numerous neuronal processes, has been linked to the onset and progression of significant neural disorders in humans. Conditions such as Alzheimer's disease, bipolar disorder, and schizophrenia have been implicated in instances where the  $\text{Ca}^{2+}$  signaling pathway experiences dysregulation.

This Special Issue aims to put together all the recent findings on how  $\text{Ca}^{2+}$  dysregulation can contribute to the outcome and progression of several neurological disorders.



[mdpi.com/si/197734](https://mdpi.com/si/197734)

# Special Issue



*cells*



an Open Access Journal by MDPI

## Editors-in-Chief

**Prof. Dr. Alexander E. Kalyuzhny**

Neuroscience, UMN Twin Cities,  
6-145 Jackson Hall, 321 Church St  
SE, Minneapolis, MN 55455, USA

**Prof. Dr. Cord Brakebusch**

Biotech Research & Innovation  
Centre, The University of  
Copenhagen, Copenhagen,  
Denmark

## 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.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [CAPus / SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (*Cell Biology*) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

## Contact Us

---

*Cells* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/cells](http://mdpi.com/journal/cells)  
[cells@mdpi.com](mailto:cells@mdpi.com)  
[X@Cells\\_MDPI](#)