



cells



an Open Access Journal by MDPI

Ion Channel Involvement in Neurological and Neuromuscular Disorders

Guest Editors:

Dr. Elena Conte

Department of Pharmacy-Drug Science, Section of Pharmacology, University of Bari, Bari, Italy

Dr. Concetta Altamura

Section of Pharmacology, Department of Precision and Regenerative Medicine, School of Medicine, University of Bari Aldo Moro, Bari, Italy

Deadline for manuscript submissions:

31 October 2024

Message from the Guest Editors

Many neurological/neuromuscular disorders, such as Alzheimer's disease, multiple sclerosis, amyotrophic lateral sclerosis, age-related disorders, and several rare diseases are caused by malfunctioning ion channels. Ion channels play a crucial role in various tissues in the process of cellular homeostasis and in the onset of membrane potential, modulating crucial intracellular signaling pathways involved in muscle contraction, cell proliferation, differentiation, neuronal activity, and apoptosis. Gene mutations can lead to an increase (gain of function) or decrease (loss of function) in the function of these channels or to the production of an altered protein, thereby inducing the symptoms of disease. Therefore, it is crucial that we identify the molecular mechanisms underlying neurological/neuromuscular disorders, focusing on ion channels and proposing their potential use as pharmacological targets for the development of appropriate and personalized therapies.

In this Special Issue of *Cells*, we hope that interested researchers will share their valuable findings on the role of ion channels as a therapeutic target in these complex and heterogeneous disorders.



mdpi.com/si/204119

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](#), [CAPlus / SciFinder](#), and [other databases](#).

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

Contact Us

Cells Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/cells
cells@mdpi.com
[X@Cells_MDPI](#)