Special Issue

Ion Channel Involvement in Neurological and Neuromuscular Disorders

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.

Guest Editors

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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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