

Special Issue

Mitochondrial Ion Channels and Exchangers in Cellular Pathophysiology

Message from the Guest Editors

Mitochondria are the major organelles responsible for the orchestration of energy production, metabolism, signaling pathways, and many other processes central to cellular function and dysfunction, including programmed cell death. One of the key roles of mitochondria is the steady-state maintenance of cellular ion homeostasis. Dysregulation and defects in the mitochondrial ion channels, exchangers, and the pore-forming membrane proteins may underlie a number of cellular pathologies. The Special Issue focuses on new insights into the role of mitochondrial ion transport systems: channels, exchangers, and permeability transition in cellular physiology and pathogenesis of various diseases, such as cardiovascular, endocrine, neuromuscular disorders, etc. Contributions will include, but not be limited to, papers dealing with the mitochondrial calcium uniporter complex, permeability transition pore, voltage-dependent anion channels, potassium channels, sodium–calcium exchanger, etc. Articles aimed at the search for novel modulators of ion channels and exchangers of the outer and inner mitochondrial membranes with an eye to possible pharmacological exploitation will be welcomed.

Guest Editors

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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