Special Issue

Ion Channels and Biosignal Transduction

Message from the Guest Editor

Ion channels are membrane proteins that mediate the flow of ions across cell membranes. In excitable cells such as neurons and muscle cells, the activities of ion channels account for electrical-signal transduction underlying essential physiological events such as neuromuscular conjunction and cardiovascular contractions. In non-excitable cells such as epithelial cells, ion channels are crucial to pH and electrolyte homeostasis. Given their cellular localization in relatively accessible plasma membranes, many ion channels have been the molecular targets for pharmaceutical drugs for treating various diseases. More recently, ion channels are being developed as the molecular sensors for physical interventions (e.g., light, mechanical forces) to modulate cellular signaling and thus cell functions.

This Special Issue warmly welcomes recent studies in a broad range of disciplines including molecular biology, physiology, cell biology and biomedical engineering with a focus on ion channels, either to explore new physiological roles of ion channels in biosignal transduction or to develop ion channels as mediators for chemical or physical interventions.

Guest Editor

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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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