



## Ion Channels and Biosignal Transduction

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### Message from the Guest Editor

Dear Colleagues,

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.





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