



## Voltage-Gated and TRP Ion Channels: Molecular Basis for their Function, Misfunction, and Therapeutic Applications

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### Message from the Guest Editors

Dear colleagues,

The signal deriving from ion flux through membranes is responsible for a plethora of pivotal biological events. In excitable cells, electrical signals also influence metabolism, signal transduction, gene expression, and protein synthesis, degradation, and targeting. These electrical signals are conducted by different members of the ion channel protein superfamily, composed of more than 140 structurally related pore-forming proteins. This is the reason why voltage-gated ion channels represent an intriguing pharmacological target for the treatment of different pathologies, including pain, cardiovascular diseases, neurological and neurodegenerative disorders, cancer, and metabolic syndromes, as widely reported in the literature. In addition, channelopathies, resulting from a congenital or acquired mutation of voltage-gated ion channels, are responsible for specific and, usually, rare diseases.

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Guest Editors





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