Special Issue

Skeletal Muscle Ion Channels in Health and Diseases

Message from the Guest Editor

Ion channels are membrane proteins that selectively regulate ion fluxes across the membranes of cells and cellular organelles. In the skeletal muscle, the presence of distinct ion channel isoforms and their age-dependent expression are fundamental for skeletal muscle excitability and force development. The wide spectrum of pathophysiological conditions associated with modification of ion channel activity, such as in myotonia, periodic paralysis or tubular aggregate myopathy, or such as in some forms of muscular dystrophy, support the importance of ion channels for skeletal muscle function. Besides being biomarkers of often rare diseases, ion channels are also appealing therapeutic targets for skeletal muscle disorders. In this context, gene-targeted animal models, patients' derived muscular cells and skeletal muscle organoids, pharmacogenetics and drug-repurposing are approaches to advance the understanding of the roles of ion channels in skeletal muscle physiology and diseases and the development of precision medicines. This special issue will collect research papers and reviews addressing advancements in the field.

Guest Editor

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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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