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Skeletal Muscle Ion Channels in Health and Diseases

Guest Editor:

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Deadline for manuscript submissions:

closed (31 December 2021)

Message from the Guest Editor

Dear Colleagues,

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.

Dr. Annamaria De Luca

Guest Editor



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Special Issue



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