

Special Issue

Compounds Modulating Mitochondrial Ion Channels

Message from the Guest Editors

Recently, in mitochondrial membranes, a variety of channel proteins have been described. On top of the well-characterized porin channel in the outer mitochondrial membrane, a plethora of channel proteins were identified in the inner mitochondrial membranes. These include both anion-selective channels and cation-selective channels. The latter group is represented by calcium channels and potassium channels such as ATP, voltage-regulated, or calcium-activated potassium channels. The recent understanding of the molecular identity of mitochondrial permeability transition pore also leads to a new pharmacology of this protein. The main part of this Special Issue will describe the basic characteristics of each channel type mentioned above and its interaction with various molecules. Available channel modulators will be critically evaluated and rated by suitability for research and medical usage. Information on the potential side effects of these substances will be reported. Mitochondrial channel modulators will also be described in the physiological context of cytoprotection or cancer cell death.

Guest Editors

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