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Mitochondrial Permeability Transition

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Message from the Guest Editors

Dear Colleagues,

For mitochondria to fulfill their bioenergetic function, mitochondrial inner membrane permeability needs to be tightly regulated. According to the central postulate of the chemiosmotic principle, the inner membrane should be weakly permeable to any ions other than protons transported through the ATP synthase completing the final of oxidative phosphorylation. Mitochondrial step permeability transition (mPT) is a phenomenon of the sudden increase of the permeability of the mitochondrial inner membrane. The role of mPT can range from the physiological process involved in modulation of the mitochondrial function to the central pathological event leading to the disruption of cellular energy metabolism and cell death. As a pathological event, mPT has been implicated as a central cause of cell damage in many conditions

This Special Issue will focus on current progress in the understanding of the molecular mechanisms of this multifaceted phenomenon. It will serve as a platform for the exchange of new ideas and perspectives for the future development of the field.

Dr. Evgeny V. Pavlov Guest Editor







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