Special Issue

Mitochondrial Calcium Signaling in Cardiac Health and Disease

Message from the Guest Editor

In this Special Issue, we invite submissions that explore novel genetic, molecular, and protein–protein interactions triggered by mitochondrial Ca2+, which translate into metabolic products, adaptation mechanisms, and beneficial effects in health and disease.Mitochondrial Ca2+ boosts respiration in chronic energy-deficient models, including those with Complex I deficiency. Although effective, this strategy conveys some higher risks. Uncontrolled Ca2+ uptake results in mitochondrial Ca2+ Overload, collapsing the mitochondrial membrane potential, triggering mitochondrial permeability, and the release of mtDNA and pro-apoptotic factors into the cytosol. Thus, maintaining mitochondrial Ca2+ homeostasis is essential for life. Understanding the cross-talk communication between mitochondrial proteins might help uncover previously unknown mechanisms that maintain mitochondrial Ca2+ homeostasis, revealing new druggable targets to ameliorate syndromes and human diseases.

Guest Editor

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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