

## Special Issue

# Mitochondrial Disorders: From Molecular Mechanisms to New Therapies

### Message from the Guest Editors

This Special Issue is dedicated to investigating the crucial role of mitochondria-related molecular mechanisms in the progression and treatment of human diseases. Mitochondria, which are central to cellular energetics and homeostasis, play a key role in a wide range of pathophysiological processes, including ischemia–reperfusion injury, oxidative stress, genetic disorders, neurodegeneration, toxicological damage, and the adverse effects of pharmacological treatments. Due to their involvement in essential cellular functions, such as ATP synthesis, ion homeostasis, cell growth, redox regulation, cell signaling, thermogenesis, and cell death, mitochondrial dysfunction can lead to profound disruptions in cell viability and contribute to the onset of numerous diseases. A deeper understanding of the molecular mechanisms that regulate mitochondrial function is critical to advancing our knowledge of these conditions and developing targeted therapeutic approaches. Special focuses of this issue include the presentation of new pharmacological targets and enhancing our understanding of diseases related to mitochondrial dysfunction.

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### Guest Editors

Dr. Yury Ladilov

Department of Cardiovascular Surgery, Heart Center Brandenburg, Brandenburg Medical School, 16321 Bernau, Germany

Dr. Muhammad Aslam

Experimental Cardiology, Justus Liebig University Giessen, 35392 Giessen, Germany

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### Deadline for manuscript submissions

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## International Journal of Molecular Sciences

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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto:ijms@mdpi.com)

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Prof. Dr. José L. Quiles  
Department of Physiology, Institute of Nutrition and Food Technology  
"Jose Mataix", Biomedical Research Center, University of Granada,  
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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