

Special Issue

Metabolic Dysfunction and Mitochondrial Pathophysiology: From Mechanisms to Therapeutic Insights

Message from the Guest Editor

Metabolic dysfunction and mitochondrial pathophysiology are central to the molecular landscape of numerous diseases, including neurodegenerative disorders, myopathies, and inherited disorders. This Special Issue aims to explore the intricate mechanisms underlying mitochondrial remodeling, bioenergetic imbalance, and their wider systemic consequences. We invite contributions that elucidate novel signaling pathways, identify robust biomarkers (including metabolomic and proteomic signatures), and propose novel therapeutic strategies targeting mitochondrial health. Both original research and comprehensive reviews addressing translational approaches—from mechanistic discovery to clinical application—are welcome. By fostering interdisciplinary dialog, this issue seeks to bridge the gap between fundamental metabolism and clinical intervention, accelerating the delivery of innovative solutions for mitochondrial disorders.

Guest Editor

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Message from the Editorial Board

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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