

## Special Issue

# Mitochondrial Biology and Human Diseases

### Message from the Guest Editors

The impact of mitochondrial function in the context of cellular physiology is getting increasingly significant. Besides the most recognized role in the generation of cellular ATP by oxidative phosphorylation, mitochondria perform a wide variety of tasks ranging from the biosynthesis of essential molecules (amino acids, lipids, heme, etc.) to calcium homeostasis, cellular signalling, quality control, and programmed cell death. Moreover, these organelles own a genome functionally synchronized with the nuclear DNA. Replication, transcription, translation, and respiratory chain complex assembly are among the molecular processes occurring within mitochondria and mediating their functions in the cellular framework.

Elucidating the molecular mechanisms that underlie mitochondrial activity has therapeutic significance. Mitochondria crucially contribute to the development of various pathologies, including primary and secondary mitochondrial diseases that are clinically heterogeneous. Additionally, mitochondria are implicated in the progression of numerous other health conditions such as cancer, respiratory illnesses, cardiac and vascular diseases, metabolic disorders, and many more.

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### Guest Editors

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### Deadline for manuscript submissions

30 December 2025



## International Journal of Molecular Sciences

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Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



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*International Journal of  
Molecular Sciences*  
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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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