

Special Issue

Research of Mitochondrial Function, Structure, Dynamics and Intracellular Organization 2.0

Message from the Guest Editor

Mitochondria play a central role in maintaining cellular function by energy (ATP) production. They are also a source of reactive oxygen species and pro-apoptotic elements. In addition to oxidative phosphorylation (OXPHOS), mitochondria regulate a wide range of metabolic processes and cellular signaling mechanisms. The importance of mitochondria in many aspects of cell physiology, bioenergetics, normal cell function and ion control (particularly Ca^{2+}) is well known. Changes in mitochondrial function and energy transfer play crucial roles in numerous diseases and in aging. Therefore, the multifaceted and comprehensive analysis of mitochondria is central to studies of energy metabolism and the pathophysiology of human diseases, including ischemia–reperfusion injury, myopathies, neurodegenerative diseases and cancer. The study of mitochondrial oxygen consumption (OXPHOS) can be performed using isolated mitochondria or in situ, in permeabilized cells or muscle fibers. Moreover, changes in mitochondrial structure, dynamics, organization and function can be analyzed by fluorescent imaging.

Guest Editor

Dr. Andrey V. Kuznetsov

Department of Heart Surgery, Medical University Innsbruck, 6020 Innsbruck, Austria

Deadline for manuscript submissions

closed (31 December 2023)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/136033

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)



About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences,
Sez-Biochimica, Faculty of Medicine, Università Politecnica delle
Marche, Via Ranieri 65, 60100 Ancona, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore
- Q1 (Organic Chemistry)