



life



an Open Access Journal by MDPI

Impaired Mitochondrial Bioenergetics under Pathological Conditions

Guest Editors:

Prof. Dr. Giorgio Lenaz

Department of Biomedical and
Neuromotor Sciences, Alma
Mater Studiorum University of
Bologna, Via Zamboni, 33, 40126
Bologna BO, Italy

Dr. Salvatore Nesci

Department of Veterinary Medical
Sciences, Alma Mater Studiorum-
Università di Bologna, 40064
Ozzano Emilia, Italy

Deadline for manuscript
submissions:

closed (19 March 2021)

Message from the Guest Editors

Mitochondria are the powerhouse of cells, but mitochondrial dysfunction causes energy depletion and commits the cell to die in a variety of diseases. The altered oxidative phosphorylation and ion homeostasis are associated to ROS production resulting from the disassembly of respiratory supercomplexes and electron transfer chain disruption. In pathological condition the dysregulation of mitochondrial homeostasis promotes Ca^{2+} overload in the matrix and ROS accumulation, which induce the mitochondrial permeability transition pore formation responsible for the mitochondrial morphological changes linked to membrane dynamics and ultimately cell death. Finally, studies on the impaired mitochondrial bioenergetics in pathology could provide molecular tools to counteract diseases associated with mitochondrial dysfunctions.



mdpi.com/si/46159

Special Issue



life



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Lluís Ribas de Pouplana

Institute for Research in Biomedicine (IRB Barcelona), The Barcelona Institute of Science and Technology, 08028 Barcelona, Spain

Message from the Editor-in-Chief

Life (ISSN 2075-1729) is an international, peer-reviewed open access journal that publishes scientific studies related to fundamental themes in life sciences. Some papers are published individually, while others are submitted for inclusion in special issues with guest editors. You are invited to contribute a research article, essay, or a review to be considered for publication.

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](#), [CAPus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q1 (Biology) / CiteScore - Q1 (Paleontology)

Contact Us

Life Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/life
life@mdpi.com
[X@Life_MDPI](#)