



life



an Open Access Journal by MDPI

Metabolic Adaptations to Environmental Pressure

Guest Editor:

Dr. Daniele Lettieri-Barbato

Department of Biology, University of Rome Tor Vergata, Via della Ricerca Scientifica, 00133 Roma, Italy

Deadline for manuscript submissions:

closed (23 October 2020)

Message from the Guest Editor

Energy and nutrient fluctuations require finely regulated metabolic systems. Much of the development and evolution of these systems has taken place in the absence of pressures that we now experience as modern humans, including nutrient overload, lack of physical activity, and exposure to thermoneutral conditions and radiations. Overall, these environmental inputs ignite adaptive responses, which persist dramatically due to both increase in life expectancy and chronic lifetime exposure to stress signals. A metabolic pressure is then generated that, if continuous, may lead to metabolic and immunological failure, thus causing reduced tolerance to glucose and infections. In fact, biological responses are unable to cope with these challenges, and homeostatic systems gradually deteriorate.

For this *Life* Special Issue, submissions are encouraged to discuss how metabolic workload can modulate stress tolerance and to identify the molecular checkpoints governing the adaptive responses. Novel strategies aimed at restoring metabolic homeostasis under conditions of metabolic pressure are also welcome.



mdpi.com/si/47968

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](#), [CAPlus / SciFinder](#), [AGRIS](#), 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](#)