Special Issue

Metabolic Adaptations to Environmental Pressure

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.

Guest Editor

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Deadline for manuscript submissions

closed (23 October 2020)



Life

an Open Access Journal by MDPI

Impact Factor 3.4
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/47968

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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.

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