

## Special Issue

# Biological Rhythms and Molecular Clockworks in Physiology and Pathology

### Message from the Guest Editors

In every single cell, a biological clock goes on ticking and the set of oscillations of the single cells is responsible for the rhythmic tissue function. Harmonized biological rhythms are apparent in numerous facets of our physiology, managed by the internal timing system known as circadian clock circuitry. Circadian desynchrony, i.e., loss of resonance between body rhythmicity and environmental cues cycles, and alterations in the rhythms of each single tissue critically contribute to the mechanisms implicated in metabolic, neoplastic, infectious, immune-inflammatory and neurodegenerative diseases. In this Special Issue in Biology, we will bring together articles dealing with the numerous and various aspects of up-to-date scientific research on multi-frequency biological rhythms in cells, animal models and humans, in order to promote an increasingly in-depth knowledge of the molecular processes underlying the rhythmicity of cell processes, intracellular signaling and tissue functions as well as their rhythmic regulation through circadian clock circuitry, both in physiological and pathological conditions.

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### Guest Editors

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### Deadline for manuscript submissions

closed (30 September 2025)



## Biology

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## About the Journal

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A major strength of biological science is the diversity of approaches that biological scientists apply to their research problems. *Biology* reflects this diversity and brings together studies employing the varied experimental and theoretical approaches that are fueling biological discovery. *Biology*, the journal, is a fully peer-reviewed publication with a rapid and economical route to open access publication and is listed on PubMed. All articles are peer-reviewed and the editorial focus is on determining that the work is scientifically sound rather than trying to predict its future impact.

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### Editors-in-Chief

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