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.

Guest Editors

Prof. Dr. Gianluigi Ubaldo Mazzoccoli

Department of Medical Sciences, Division of Internal Medicine and Chronobiology Laboratory, Fondazione IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo, FG, Italy

Dr. Marina Maria Bellet

Dipartimento di Medicina Sperimentale, Università degli Studi di Perugia, 06132 Perugia, Italy

Deadline for manuscript submissions

30 September 2025

Biology

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed

mdpi.com/si/156770

Biology
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biology@mdpi.com

mdpi.com/journal/biology

Biology

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed

mdpi.com/journal/biology

About the Journal

Message from the Editorial Board

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.

Editors-in-Chief

Prof. Dr. Jukka Finne
Research Programme in Molecular and Integrative Biosciences, Faculty of Biological and Environmental Sciences, University of Helsinki, P.O. Box 56, FI-00014 Helsinki, Finland

Prof. Dr. Andrés Moya
Integrative Systems Biology Institute, University of Valencia and CSIC, 46980 Valencia, Spain

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q1 (Biology) / CiteScore - Q1 (General Agricultural and Biological Sciences)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.4 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2025).

MDPI