

Special Issue

Cutting-Edge Biomechanics: Unlocking the Future of Biomedical Engineering

Message from the Guest Editor

- **Computational Biomechanics and Modeling:** Finite element analysis, multiscale and patient-specific modeling.
- **Experimental Biomechanics:** Innovative in vitro/in vivo methods, dynamic mechanical testing, imaging-based characterization.
- **Cellular and Molecular Biomechanics:** Mechanotransduction, cell–matrix mechanics, mechanobiology of disease.
- **Tissue Biomechanics and Regenerative Engineering:** Tissue remodeling, mechanobiology of development and repair, bioinspired scaffold design.
- **Cardiovascular Biomechanics:** Hemodynamics, arterial wall mechanics, heart valve function, device–tissue interactions.
- **Musculoskeletal Biomechanics:** Joint mechanics, bone adaptation, orthopedic implants, neuromuscular rehabilitation.
- **Sports and Injury Biomechanics:** Impact analysis, injury risk prediction, performance optimization.
- **Biomaterials and Medical Device Innovation:** Mechanical evaluation of biomaterials, prosthetic design, functional testing.
- **Medical Robotics and Haptics:** Surgical simulation, sensor-integrated rehabilitation devices, human–machine interfaces.
- **AI and Machine Learning in Biomechanics:** Data-driven modeling, real-time analytics, image processing and classification.

Guest Editor

Dr. Ye Zeng

Institute of Biomedical Engineering, West China School of Basic Medical Sciences and Forensic Medicine, Sichuan University, Chengdu, China

Deadline for manuscript submissions

closed (30 April 2026)



Biology

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 7.3
Indexed in PubMed



mdpi.com/si/246542

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

[mdpi.com/journal/
biology](https://mdpi.com/journal/biology)





Biology

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 7.3
Indexed in PubMed



[mdpi.com/journal/
biology](https://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 16.8 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).