

## Special Issue

# Biomolecular Insights into Exercise-Induced Modulation of Immunometabolism

### Message from the Guest Editors

This Special Issue aims to highlight recent advances in understanding the biomolecular basis of exercise-induced immunometabolic modulation. By examining the biomolecular responses to exercise at the molecular and cellular levels, we aim to uncover novel insights into how physical activity influences biomolecular mechanisms underlying immune regulation, metabolic pathways, and their interplay in disease contexts, particularly in the regulation of metabolic disorders, cardiovascular diseases, inflammatory diseases, neurodegeneration and cancer.

We invite submissions focusing on, but not limited to, the following biomolecular aspects: Biomolecular Signaling in Exercise Adaptation; Exercise and Immune Cell Metabolism; Inflammatory Pathways and Exercise; Mitochondrial Bioenergetics and Exercise; Exercise and Adaptive Immunity; Neuroimmunometabolism and Brain Health; Exercise and Cancer Immunometabolism; Metabolic Biomarkers of Exercise-Induced Immunomodulation.

We look forward to your contributions to this exciting Special Issue.

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### Guest Editors

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### Deadline for manuscript submissions

31 December 2025



## Biomolecules

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Impact Factor 4.8  
CiteScore 9.2  
Indexed in PubMed



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### Message from the Editorial Board

*Biomolecules* is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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### Editors-in-Chief

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