Special Issue

Modulating Gut Microbiota and Host Interactions: The Role of Diet, Probiotics, and Circadian Rhythms

Message from the Guest Editors

Recent advancements in gut microbiota research have revealed its pivotal role in maintaining host health, influencing not only metabolism but also immune regulation and neurological functions. This Special Issue aims to explore how diet, probiotics, and circadian rhythms collectively shape gut microbiota composition and function, contributing to overall health and disease prevention.

The scope of this issue spans experimental and clinical studies that investigate the molecular mechanisms underlying diet–microbiota–host interactions. Submissions are invited on a broad range of topics, including the following:

Nutritional strategies to enhance microbiome diversity and resilience.

Probiotic applications in gut health and host–microbe dynamics.

The role of microbial metabolites in circadian regulation.

Microbiota-mediated pathways linking diet to metabolic and neurobehavioral health.

Host–microbe interactions in models like intestinal organoids or C. elegans.

Guest Editors

Dr. Miri Park

Food Functionality Research Division, Korea Food Research Institute, Wanju-gun 55365, Republic of Korea

Dr. Jeehwan Choe

Department of Livestock, Korea National University of Agriculture and Fisheries, Jeonju 54874, Republic of Korea

Deadline for manuscript submissions

15 April 2026

Metabolites

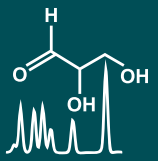
an Open Access Journal by MDPI

Impact Factor 3.7
CiteScore 6.9
Indexed in PubMed

mdpi.com/si/224897

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

mdpi.com/journal/metabolites



Metabolites

an Open Access Journal by MDPI

Impact Factor 3.7
CiteScore 6.9
Indexed in PubMed

mdpi.com/journal/metabolites

MDPI

About the Journal

Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

Editor-in-Chief

Dr. Amedeo Lonardo
Internal Medicine, Ospedale Civile di Baggiovara, Azienda Ospedaliero-Universitaria, 41126 Modena, Italy

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q2 (Endocrinology, Diabetes and Metabolism)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.4 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the first half of 2025).