

Special Issue

Exploring the Impact of Probiotics and Fermented Food on Gut Microbiota for Personalized Nutrition and Host Health

Message from the Guest Editors

Over the past decade, the gut microbiome has emerged as one of the most influential determinants of human health. Increasing evidence shows that the gut microbial ecosystem plays a central role in digestion and metabolism, immune modulation, neurological function, and the risk of chronic non-communicable diseases. Understanding how diet and microorganisms shape this complex community has become a key scientific priority across biology, medicine, and food science.

This Special Issue aims to gather cutting-edge research and comprehensive reviews to deepen our understanding and accelerate innovation in this important field. The scope of this Special Issue includes, but is not limited to, the following: Mechanistic studies on how probiotics and fermented foods modulate gut microbial composition and metabolic function; basic studies linking microbiota changes to host metabolic, immune, and physiological outcomes; Personalized and precision nutrition approaches guided by gut microbiome data; Multi-omics technologies supporting microbiome-based dietary intervention design; Interactions between diet, microbial ecology, and host health.

Guest Editors

Dr. Massalin Nakphaichit

1. Department of Biotechnology, Faculty of Agro-Industry, Kasetsart University, Bangkok 10900, Thailand

2. Center of Excellence for Microbiota Innovation, Faculty of Agro-Industry, Kasetsart University, Bangkok 10900, Thailand

Dr. Suvimol Charoensiddhi

Department of Food Science and Technology, Faculty of Agro-Industry, Kasetsart University, Bangkok 10900, Thailand

Deadline for manuscript submissions

31 October 2026



Biology

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed



mdpi.com/si/265083

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 7.4
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).