

## Special Issue

# Synthetic Microbial Communities in Fermented Foods: From Mechanistic Insights to Sustainable Applications

### Message from the Guest Editor

This Special Issue focuses on the design, construction, and application of synthetic microbial communities (SynComs) in fermented foods. Fermentation represents one of the oldest biotechnologies, yet recent advances in microbial ecology, multi-omics, and metabolic engineering have offered new opportunities for the rational design of microbial communities. These SynComs provide powerful platforms for studying microbial interactions, controlling fermentation outcomes, and tailoring the quality and safety of products. Contributions to this Special Issue may address various topics, ranging from the mechanistic understanding of microbial interactions and functional metabolites, to the development of SynComs that reduce foodborne risks, enhance flavor and nutritional profiles, or valorize agri-food byproducts. By integrating microbiology, systems biology, food science, and ecological theory, this collection aims to inspire interdisciplinary research and provide a roadmap for the further development of microbial food biotechnology. It welcomes original research articles, reviews, perspectives, and methodological advances.

### Guest Editor

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### Deadline for manuscript submissions

closed (20 April 2026)



## Foods

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## About the Journal

### Message from the Editor-in-Chief

*Foods* (ISSN 2304-8158) is an open access and peer reviewed scientific journal that publishes original articles, critical reviews, case reports, and short communications on food science. Articles are released monthly online, with unlimited free access. Currently, *Foods* has been indexed by the Science Citation Index Expanded (SCIE - Web of Science), PubMed, and Scopus. Our aim is to encourage scientists, researchers, and other food professionals to publish their experimental and theoretical results as much detail as possible. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global food science community.

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### Editor-in-Chief

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