

## Special Issue

# Microbial Production of Nutritional Compounds and Their Health Applications

### Message from the Guest Editor

With growing global demands for sustainable and precision nutrition, microbial biomanufacturing offers a promising solution by leveraging synthetic biology, metabolic engineering, and advanced fermentation technologies. The following Special Issue explores cutting-edge advances in the microbial biosynthesis of high-value nutritional compounds (including vitamins, amino acids, aromatic compounds, bioactive peptides, and functional carbohydrates) and their demonstrated health benefits. We particularly welcome contributions that (1) develop innovative microbial engineering strategies (e.g., CRISPR-based genome editing, synthetic biology approaches, and multi-omics-guided strain optimization) for enhanced production of these nutraceuticals and (2) investigate their clinical potential in gut health maintenance (e.g., modulating gut microbiota composition and alleviating IBD symptoms), antioxidant defense (e.g., ROS scavenging mechanisms and anti-aging effects), metabolic regulation (e.g., glucose/lipid metabolism modulation), and immune system modulation. Both original research articles and comprehensive reviews are encouraged.

### Guest Editor

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### Deadline for manuscript submissions

28 February 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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