

Special Issue

Beneficial Microbes in Fermentation, Functional Foods and the Modulation of Gut Microbiota

Message from the Guest Editor

This Special Issue aims to advance the understanding of the multifaceted role different microbial genera play at the intersection of functional foods, gut microbiota, and fermentation. It further seeks to highlight research that clarifies how these organisms can be optimally harnessed to improve health outcomes, strengthen the gut microbiome, counteract pathogens, improve food fermentations and improve dysbiosis.

We invite original research articles, reviews, and perspectives addressing, but not limited to, the following themes:

- Mechanistic insights into the probiotic and gut microbiota-modulating activities of food-associated microbes;

- Health-promoting metabolites and bioactive compounds generated during fermentation and their bioactivities ;

- Advances in immunomodulatory and antimicrobial properties of LAB and other food-associated microbes in functional foods;

- Safety, regulatory, and efficacy assessments of microbes in functional food products;

- Technological innovations in fermentation processes for improved health and functional outcomes.

Guest Editor

Dr. Christian Anumudu

School of Chemical Engineering, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

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

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About the Journal

Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

Editor-in-Chief

Dr. Nico Jehmlich

Department of Molecular Toxicology, UFZ-Helmholtz Centre for
Environmental Research, 04318 Leipzig, Germany

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JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.2 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).