Special Issue

Probiotic Lactic Acid Bacteria and Their Applications in Food Safety and Animal Health

Message from the Guest Editors

Lactic acid bacteria (LAB), recognized as GRAS organisms, represent a promising natural alternative to chemical preservatives. Their application as probiotic starter cultures and bioprotective agents enables the production of antimicrobial metabolites such as lactic acid and bacteriocins, with a positive impact on food quality, shelf life, and pathogen control, particularly under minimal processing conditions. This Special Issue invites contributions exploring the technological functionality, safety, and antimicrobial potential of LAB in fermented and RTE foods. Topics of interest include:

- The development and characterization of bacteriocinogenic LAB strains,
- The mechanisms for the inhibition of pathogens and biofilm control,
- The use of LAB in hurdle technologies and nonthermal processing,
- The impact of LAB on food preservation, reduction in nitrites/additives, and postbiotic effects.

Through this Special Issue, we aim to showcase scientific innovations and practical approaches for producing safer, functional, and consumer-trusted fermented foods.

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Message from the Editor-in-Chief

Welcome to a new open access journal, Fermentation, which meets the growing need for a high quality peerreviewed international journal with easy access to all researchers globally. We hope that you will share our enthusiasm for this new journal and look forward to working with you to make Fermentation a leader in its field. Your contributions are vital for the success of this new journal. Proposals for editing a special issue for a particular topical area are always welcome.

Editor-in-Chief

Dr. Badal C. Saha Retired, National Center for Agricultural Utilization Research, USDA-ARS, Peoria, IL, USA

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