Special Issue

Promotion of Food Safety and Functional Improvement Using Microorganisms

Message from the Guest Editor

Food safety, quality, and health-promoting effects often depend on the struggle between beneficial and detrimental microorganisms. The former, mainly lactic acid bacteria (LAB), propionic acid bacteria (PAB), some yeast species, and single strains of coagulase negative staphylococci (CNS), can modify the properties of the raw materials, leading to food products lasting longer and having desirable sensory properties. In addition, beneficial microorganisms can inhibit spoiling and pathogenic microbial species in food via different mechanisms, mostly involving the production of organic acids and antimicrobial peptides. Moreover, antagonism at the single-strain level can lead to the inhibition of bacteria carrying antibiotic resistance genes (ARGs), which can be present in foods with a complex microbiota.

Therefore, this Special Issue will showcase articles highlighting advancements in improving the safety, quality, and health-promoting properties of foods through the use of microorganisms or their metabolites, based on the belief that research in this field can lead to practical innovations for the production of safer and healthier foods.

Guest Editor

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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.

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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).

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