Special Issue

Recent Research in Probiotic Yeasts: Molecular Aspects

Message from the Guest Editors

The human microbiome consists not only of bacterial species but also of fungal and archaeal species. The most abundant fungal genera in the human gut are Saccharomyces, Malassezia, and Candida, in decreasing order of abundance, representing up to 65% of the total observed fungi. Effective adhesion properties, antimicrobial effects, intrinsic resistance to antibiotics, and high adaptability to stressful environments are the expected abilities of probiotic yeasts. Considering their fermentative aptitude, the most recent research on new probiotic strains would aim to select yeasts for fermented foods also in combination with probiotic lactic acid bacteria to strengthen the efficacy, achieving more innovative functional claims. In this context, a molecular approach to the studies on the metabolism of active compounds of the probiotic veasts is needed. New probiotic and/or functional yeast strains are also required by researching the ability to produce multifunctional metabolites such as folates, mycocins, prebiotic oligosaccharides, exopolysaccharides, enzymes, antioxidants, and volatile compounds with broad and interesting activities in the medical, biotechnology, and food sectors.

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Deadline for manuscript submissions

30 May 2025



International Journal of Molecular Sciences

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Impact Factor 4.9 CiteScore 8.1 Indexed in PubMed



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