

An Overview of Intestinal Ecology Affected by the Fermentation of Marine Polysaccharides by Gut Microbiota



Keywords: Intestinal Ecology, Gut Microbiota, Marine Polysaccharides, Fermentation, Metabolites, Microenteritis

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...the evaluation highlights the need to analyze nutrient availability in targeted interventions. Understanding how individual variation in microbial community composition influences host health and immune responses is a key challenge in personalized medicine.

Clinical applications and therapeutic implications: Clinical trials are warranted to assess the therapeutic potential of marine polysaccharides in managing gastrointestinal diseases, metabolic syndrome, and other health conditions associated with dysbiosis. Rigorous clinical studies are needed to evaluate the efficacy, safety, and optimal dosing of marine polysaccharide-based interventions in diverse patient populations.

Key challenges and future directions: Integrating multi-omics approaches including metagenomics, metabolomics, transcriptomics, and metabolomics are imperative to unravel the complex interplay between marine polysaccharides, gut microbial community, and host physiology. By combining insights from different research layers, researchers can uncover novel microbial-host interactions and identify potential therapeutic targets.

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N^{ne}

Conflict of Interest

N^{ne}

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