

Special Issue

Molecular Insights into Probiotics and Prebiotics in Gut Health and Disease

Message from the Guest Editor

The gut microbiota profoundly influences host health through nutrient metabolism and immune regulation. Probiotics and prebiotics modulate the gut microbiota and show potential in preventing and treating intestinal disorders. However, their mechanisms of action and optimal applications require further study. This research is crucial due to the increasing prevalence of gut-related diseases and the need for microbiota-targeted interventions. This Special Issue aims to provide a focused overview of the latest advancements in this dynamic field and to elucidate the role of probiotics and prebiotics in shaping the gut microbiota and influencing intestinal health and disease pathogenesis. Specifically, this Special Issue explores the etiology and pathogenesis of intestinal diseases; the role of the gut microbiota; and novel therapeutic strategies, including probiotics and prebiotics. The articles published in this Special Issue will explore the mechanisms, impact on the gut barrier and immune responses, and applications of probiotics and prebiotics in preventing and treating gastrointestinal disorders, as well as their implications for overall health via the gut–brain axis.

Guest Editor

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