

Special Issue

Psychobiotics as Next-Generation Probiotics: A Holistic Approach to Mental Health and Gut-Brain Axis Modulation

Message from the Guest Editor

The gut–brain axis is an intricate bidirectional communication network linking the central nervous system with the gut microbiota. Emerging evidence highlights the role of psychobiotics—probiotics with mental health benefits—as potential modulators of this axis, influencing cognitive function, emotional well-being, and neurological disorders. By modulating neurotransmitter production, immune responses, and metabolic pathways, psychobiotics present a promising next-generation approach to mental health interventions. This Special Issue aims to highlight the latest advances in psychobiotics, explore their mechanisms of action, and examine their therapeutic potential in conditions such as anxiety, depression, neurodegenerative diseases, and stress-related disorders. Topics of interest include microbiome-based interventions for neurological and psychiatric disorders, metabolic and immune pathways linking gut bacteria to mental health, and innovative approaches to psychobiotic formulation and their delivery to the human diet.

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