

Special Issue

Microbiomes in Human Health and Diseases

Message from the Guest Editor

The human microbiome—the collective microorganisms inhabiting in and on the human body and their genes/products—is a pivotal determinant of health and disease. Consequently, the human microbiome has been linked to diverse conditions. However, significant knowledge gaps persist in the field. Current research predominantly focuses on bacterial communities, particularly in the gut, while microbiome in other niches and microbial kingdoms beyond bacteria remain understudied. Furthermore, the mechanisms of microbial communications across body sites and their integrated roles in host physiology are poorly understood so far. The aim of this Special Issue is to showcase cutting-edge research advancing our understanding of how resident microbial communities influence host physiological functions and contribute to health and disease pathogenesis. We welcome original research and reviews providing insights into the microbiome and its role in human health and disease conditions, with emphasis on host–microbiome interactions, multi-kingdom microbial dynamics, and cross-niche microbiome communications, highlighting the translational potential for microbiome-based diagnostics and therapeutics.

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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