

## Special Issue

# Multi-Omics Approaches for Gut Microbiota Research: Implications for Human Nutrition

### Message from the Guest Editors

The human gut microbiota (GM) is a complex, dynamic and spatially diverse ecosystem—the largest in the body—consisting of a wide range of bacteria, viruses, fungi and protozoa that inhabit the gastrointestinal tract. These microorganisms interact with each other and the human host, maintaining a symbiotic relationship that is essential for homeostasis. Disruptions in its normal composition, known as “microbial dysbiosis”, result in imbalances in microbial diversity and function, which have been associated with various health conditions.

This Special Issue highlights the latest applications of multi-omics strategies in GM research and their implications for human nutrition. Topics of interest include, but are not limited to, the following: multi-omics-driven precision nutrition, the dietary modulation of the gut microbiota through integrated omics approaches, the role of microbial metabolites in health and disease using multi-omics data, and the application of systems biology in microbiome research. By garnering interdisciplinary perspectives, this Special Issue aims to advance our understanding of the GM and its role in optimizing nutrition and health.

### Guest Editors

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### Deadline for manuscript submissions

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