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Multiomic Approaches in the Microbiome and Microbial Ecology of Health and Disease

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Message from the Guest Editors

Advances in microbiome research have provided insights into microbial taxonomic membership and microbial ecology in health and various disease phenotypes. The field has also benefited from the application of other 'omics including meta-(transcriptomics), meta-(proteomics) and metabolomics for the characterization of transcriptional and translational activities within microbial communities. Most microbiome studies, thus far, have applied a single-omics approach, and few have shown the utility of combining various 'omics datasets to understand microbial membership and function. Challenges exist for multiomics data generation, integration, normalization, database selection, data storage and dissemination.

The present Special Issue welcomes studies of the microbiome as well as the microbial ecology of health and disease using multiomics approaches. Sample types may include, but are not limited to those originating from human, animal or environment (e.g., built, soil, water and wastewater). Articles describing one or several of the mentioned challenges in the field of multiomics are also welcomed.









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Message from the Editor-in-Chief

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