Special Issue

Applications of Microbiome Research and Multi-Omics Integration in Diseases and Therapeutics

Message from the Guest Editor

Microbiome research and multi-omics integration have revolutionized our understanding of the complex interactions between the microbiome and health and have emerged as powerful tools in potential therapeutics. By interrogating complex interactions between the microbiome and the host, researchers can shed light on the mechanisms of various diseases such as inflammatory diseases, metabolic disease, cancers, and neurological disorders. The identification of disease-associated microbiota signatures and host biomarkers could serve early disease detection and identify potential therapeutic targets for personalized medicine.

Integrating multi-omics data with microbiome data has allowed for the occurrence of a more comprehensive understanding of disease pathways and the influence of gut microbes on various health conditions.

In conclusion, the synergy between microbiome research and multi-omics integration holds immense promise for uncovering disease mechanisms, identifying biomarkers, advancing precision medicine, and developing innovative therapeutics. Hence, we invite researchers from various disciplines to contribute original research articles, review papers to this Special Issue.

Guest Editor

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Deadline for manuscript submissions

closed (31 January 2024)

Biomedicines

an Open Access Journal by MDPI

Impact Factor 3.9
CiteScore 6.8
Indexed in PubMed

mdpi.com/si/181691

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Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to Biomedicines, be it original research, review articles, or developing Special Issues of current key topics.

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