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# Advancement of Microbiome and Metabolomics in Understanding Immune Homeostasis

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### **Message from the Guest Editors**

Dear Colleagues,

The intricate interplay between gut microbiome and host metabolic landscape is pivotal in orchestrating immune responses. This Special Issue aims to shed light on the intricate relationships between gut ecology, microbiome, metabolome, and their collective impact on immune regulation and responses.

Focus:

- Exploration of the role of gut microbial communities and their metabolomic profiles in modulating immune responses.
- Investigating the role of the microbiome and metabolome in maintaining immune homeostasis and their implications in disease and transplantation.
- Computational biology approaches for deciphering complex microbe–immunity interactions and their systemic effects.

This Special Issue is dedicated to exploring the latest advancements in microbiome research and metabolomics, particularly their combined impact on immune homeostasis. Emphasis will be placed on original research and reviews that unveil new insights into gut ecology, revealing how microbial diversity and metabolic pathways influence the immune system behavior in health and disease







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# **Editor-in-Chief**

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### Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies shown utility elucidating have for mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

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