Special Issue

Host–Microbiota Interaction in Metabolic Diseases

Message from the Guest Editors

The gut microbiota plays a pivotal role in regulating host metabolism and influencing the progression of metabolic diseases. This Special Issue invites cutting-edge research and comprehensive reviews focusing on the role of gut microbiota in metabolic health. Topics of interest include the following:

- The role of gut microbes in the development and progression of metabolic diseases such as obesity, diabetes, and NAFLD.
- Mechanisms by which gut microbiota regulate adipocyte differentiation, energy metabolism, and inflammatory responses through the gut–adipose tissue axis.
- Application of data-driven analytical approaches and multi-omics techniques in systems biology to uncover potential gut microbes and their mechanisms influencing host metabolism.
- The mediating role of gut microbiota in the effects of food components, traditional Chinese medicine, pharmacological agents, and other interventions on metabolic diseases.
- Investigation of microbial metabolites mediating the regulatory effects of gut microbes on host metabolism and their underlying mechanisms

Guest Editors

Dr. Zhipeng Li

State Key Laboratory of Food Science and Resources, Nanchang University, Nanchang, China

Dr. Weiwei He

State Key Laboratory of Food Science and Resources, China-Canada Joint Laboratory of Food Science and Technology (Nanchang), Key Laboratory of Bioactive Polysaccharides of Jiangxi Province, Nanchang, China

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Microorganisms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
microorganisms@mdpi.com

mdpi.com/journal/microorganisms

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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.

Editor-in-Chief

Dr. Nico Jehmlich
Department of Molecular Toxicology, UFZ-Helmholtz Centre for Environmental Research, 04318 Leipzig, Germany

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