Special Issue

Effects of Gut Microbiota on Human Health and Disease, 2nd Edition

Message from the Guest Editor

Intestinal microbiota may contribute to human health and disease. However, to gain a mechanistic understanding of how the gut microbiota affect human health and disease, the current research is moving away from descriptive microbiota census analyses toward cause-and-effect studies. Joint analyses of high-throughput human multi-omics data, including metagenomics and metabolomics data, together with measures of host physiology and mechanistic experiments in humans, hold potential as initial steps in the identification of potential molecular mechanisms behind previously reported associations. Through this topic, we will discuss the current knowledge of how the gut microbiota and derived microbial compounds may be linked to the metabolism of a healthy human host or to the pathogenesis of common human diseases. We will highlight examples of microbiota-targeted interventions aiming to optimize metabolic health and provide perspectives for future basic and translational investigations within this nascent and promising research field.

Guest Editor

Dr. Yunhuan Liu

College of Veterinary Medicine, Nanjing Agricultural University, Nanjing, China

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

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"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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