Special Issue

The Genetic and Biochemical Diversity of Gut Microbiota

Message from the Guest Editor

Research in the gut microbiome is moving from data accumulation to integration, and more and more comprehensive models are created to encompass diversity of interactions between nutrition, gut microbiome, and the host. NGS data provide insights into the diversity of metabolic potential in microbial community; biochemical profiling help toward the discovery of novel active compounds, compounds created through interactions of human and microbial enzymes acting on complex substrates; finally, the resulting compounds are able to participate in novel metabolic circles and start cascades of immune, endocrine, neurotrophic, and stress-response reactions.

The objective of this Special Issue is to provoke discussion aimed at knowledge integration and to represent the diversity of pathways entangled in the holobiont. We invite microbiome researchers to elaborate food and fiber digestion, drug metabolism, polyphenol bioconversion, neuroendocrine metabolites, and human–microbial gene interaction, with a focus on describing the pathways interactions, presenting current unsolved issues, and stating unmet needs in holobiont research.

Guest Editor

Dr. Dmitry G. Alexeev

Department of Information Technologies, ITMO University, 197101 St. Petersburg, Russia

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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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About the Journal

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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