



## The Genetic and Biochemical Diversity of Gut Microbiota

Guest Editor:

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### Message from the Guest Editor

Dear Colleagues,

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.

Dr. Dmitry G. Alexeev

*Guest Editor*





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## Message from the Editor-in-Chief

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