

Special Issue

The Gut Microbiome: Mechanisms and Therapies in Communicable and Non- Communicable Diseases

Message from the Guest Editors

The gut microbiome plays a key role in human health, informing immune system development and metabolism. Reflecting this, a wide spectrum of human diseases has been linked to disruption of the delicate gut microbiome ecosystem. In communicable diseases, for instance, the microbiome has been found to influence susceptibility to infection, modulate vaccine responses, and interact with microbial exposure pathogens. In non-communicable diseases—such as diabetes, cardiovascular disease, cancer, and neurodegenerative disorders—dysbiosis can serve as an accurate biomarker of risk.

We welcome studies that (I) address targeted therapies, such as diet, prebiotics, probiotics, postbiotics, synbiotics, and microbial-derived small molecules; (II) introduce innovative analytical or quantitative multi-omics methods; or (III) explore translational and precision microbiome therapeutic strategies. Overall, this Collection aims to integrate basic, clinical, and translational perspectives toward augmenting our collective understanding of microbiome-informed strategies for prevention and treatment across the disease spectrum.

Guest Editors

Dr. Tatiana Marquez-Lago

Department of Genetics, University of Alabama at Birmingham,
Birmingham, AL 35294, USA

Dr. Lyse A Norian

College of Medicine, University of Kentucky, Lexington, KY 40506, USA

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

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Message from the Editorial Board

Nutrients is an on-line open access journal that was first published in 2009. *Nutrients* adheres to rigorous peer-review and editorial processes and publishes only high quality manuscripts that address important issues related to the impacts of nutrients on human health. The Impact Factor of *Nutrients* has risen rapidly since its establishment and it is now ranked in the first quartile of journals publishing in the field of nutrition and dietetics research.

Editors-in-Chief

Prof. Dr. Lluís Serra-Majem

1. Centro de Investigación Biomédica en Red Fisiopatología de la Obesidad y la Nutrición (CIBEROBN), Institute of Health Carlos III, 28029 Madrid, Spain
2. Research Institute of Biomedical and Health Sciences (IUIBS), University of Las Palmas de Gran Canaria, 35001 Las Palmas, Spain
3. Preventive Medicine Service, Centro Hospitalario Universitario Insular Materno Infantil (CHUIMI), Canarian Health Service, 35016 Las Palmas, Spain

Prof. Dr. Maria Luz Fernandez

Department of Nutritional Sciences, University of Connecticut, Storrs, CT 06269, USA

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