Special Issue

Food Bioactives, Gut Microbiota, and Immune– Metabolic Regulation

Message from the Guest Editor

Over the past decade, the interaction between food bioactive compounds and the gut microbiota has emerged as a key determinant of immune and metabolic health. Bioactive molecules - including polyphenols, polysaccharides, and peptides – act as prebiotic modulators that influence microbial diversity and generate metabolites affecting immune and metabolic signaling. Growing evidence demonstrates that these diet-microbiota interactions play a crucial role in preventing and managing chronic inflammatory and metabolic disorders such as obesity, inflammatory bowel disease, and metabolic syndrome. However, questions remain regarding the bioavailability, metabolic fate, and molecular mechanisms of these compounds, as well as their modulation of the gut-immunemetabolic axis. This Special Issue welcomes studies that explore these relationships through clinical, experimental, or mechanistic approaches, particularly those integrating multi-omics tools to clarify gut microbiota-host interactions and reveal how food bioactives can be harnessed to improve human health.

Guest Editor

Dr. HyeMee Kim

Department of Food Science and Nutrition & Kimchi Research Institute, Pusan National University, Busan, Republic of Korea

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

mdpi.com/journal/ nutrients





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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.

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

Prof. Dr. Maria Luz Fernandez

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

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