

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-immune-metabolic 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

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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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