

## Special Issue

# Effects of Phytochemicals on Human Intestinal Microbiota

### Message from the Guest Editors

Phytochemicals, bioactive compounds derived from plants, play a significant role in human health, primarily through their interactions with the gut microbiota. Increasing evidence suggests that polyphenols, flavonoids, alkaloids, terpenes, and other phytochemicals can influence microbial composition, metabolic pathways, and gut homeostasis. These compounds can promote the growth of beneficial bacteria, inhibit the proliferation of pathogens, and become metabolized by gut microbes into bioactive metabolites with potential health benefits. We invite the submission of original *in vitro*, preclinical, clinical research, and comprehensive reviews focusing on the following topics:

- The mechanisms by which phytochemicals modulate the gut microbiota composition and function.
- The role of microbial metabolites derived from phytochemicals in promoting human health.
- Interactions between phytochemicals, gut microbiota, and metabolic disorders (e.g., obesity, diabetes, and metabolic conditions).
- The influence of phytochemicals on gut-brain axis communication.
- Dietary strategies using phytochemicals for microbiota-targeted therapies.

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### Deadline for manuscript submissions

closed (25 September 2025)



## Nutrients

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Impact Factor 5.0  
CiteScore 9.1  
Indexed in PubMed



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## About the Journal

### 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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