

## Special Issue

# Impact of Food Nutritional Compounds on Gut Microbiota and Their Health Benefits

### Message from the Guest Editors

The human gut microbiota constitutes a complex, dynamic system of trillions of microorganisms. Extensive research evidence indicates that it plays a crucial role in maintaining human health and in the development of disease. Dietary intake profoundly influences the composition and function of the gut microbiota. Moreover, beyond providing basic nutrition, certain specialized nutrients—including probiotics, prebiotics, postbiotics, and synbiotics—also serve as key regulators of the gut microbial community, exerting effects that extend far beyond their initial anticipated roles. By modulating the gut microbiota, we have gained both theoretical insights and achieved practical success in maintaining lifelong wellness, alleviating chronic diseases, and enhancing immune function.

This Special Issue aims to compile cutting-edge research that elucidates the precise mechanisms by which specialized nutrients interact with the gut microbiota, including cell, animal, and population experiments. We welcome original research articles and reviews exploring how these interactions translate into tangible health benefits through novel experimental approaches.

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### Guest Editors

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### Deadline for manuscript submissions

31 May 2026



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### Message from the Editor-in-Chief

*Foods* (ISSN 2304-8158) is an open access and peer reviewed scientific journal that publishes original articles, critical reviews, case reports, and short communications on food science. Articles are released monthly online, with unlimited free access. Currently, *Foods* has been indexed by the Science Citation Index Expanded (SCIE - Web of Science), PubMed, and Scopus. Our aim is to encourage scientists, researchers, and other food professionals to publish their experimental and theoretical results as much detail as possible. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global food science community.

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### Editor-in-Chief

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