

## Special Issue

# Interactions between Probiotics, the Gut Microbiome, and Immunity

### Message from the Guest Editor

Probiotics modulate the immune system from the gut-associated lymphoid tissue. In the intestinal microenvironment, dendritic cells recognize the probiotic and thus secrete cytokines with the ability to induce the polarization of naive T cells toward the population of Treg cells secreting IL-10. Both Treg cells and the secretion of anti-inflammatory IL-10 are driven to lymphoid tissue in distant organs to attenuate the pro-inflammatory response. Probiotic-rich foods in the diet or taking probiotic supplements can promote a healthy and balanced intestinal microbiota, reduce the colonization of antibiotic-resistant bacterial populations, and modulate the immune system. In that regard, the investigation of the bacterial population in the gut microbiota is critical to understanding the influence of intestinal dysbiosis on inflammatory chronic disease. Thus, new studies addressing both the action mechanisms of probiotic agents on the immune response and the evaluation of the gut microbiota are necessary. The present Special Issue welcomes authors to submit studies that address the following topics: Chronic inflammatory diseases, the gut microbiota, and the immune response.

### Guest Editor

Dr. Flávio Aimbire Soares de Carvalho  
Institute of Science and Technology, Federal University of São Paulo,  
São José dos Campos 12231-280, SP, Brazil

### Deadline for manuscript submissions

15 February 2025



## Nutrients

an Open Access Journal  
by MDPI

Impact Factor 4.8  
CiteScore 9.2  
Indexed in PubMed



[mdpi.com/si/212308](https://mdpi.com/si/212308)

*Nutrients*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[nutrients@mdpi.com](mailto:nutrients@mdpi.com)

[mdpi.com/journal/  
nutrients](https://mdpi.com/journal/nutrients)





# Nutrients

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.8  
CiteScore 9.2  
Indexed in PubMed



[mdpi.com/journal/  
nutrients](https://mdpi.com/journal/nutrients)



## 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.

---

### 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

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Embase, PubAg, AGRIS, and other databases.

#### Journal Rank:

JCR - Q1 (Nutrition and Dietetics) / CiteScore - Q1 (Food Science)