

Special Issue

Dietary Effects on Gene Expression and Metabolic Profiles

Message from the Guest Editors

Compelling evidence shows that dietary components regulate gene expression, cellular metabolic homeostasis, and organism function through various molecular mechanisms. The dietary patterns individuals follow are key modifiable risk factors for diseases like obesity, cardiovascular diseases, diabetes, certain cancers, and osteoporosis. Genetic variations, including SNPs (single-nucleotide polymorphisms), also affect dietary-mediated dysfunctions, such as metabolic dysregulation. Therefore, SNP analysis has become an essential tool for determining the impact of nutrients on health. Advances in omics technologies further enhance our understanding of the biological processes underlying the effects of dietary patterns and bioactive components. This Special Issue invites original articles, reviews, and meta-analyses exploring how dietary patterns or bioactive compounds from plant and animal sources affect gene expression, metabolism, and cellular functions in diet-related diseases. Studies using omics strategies to identify the biological mechanisms of food components on health are encouraged. Topics also include SNP-diet associations across different ethnic groups.

Guest Editors

Dr. Marzena Wójcik

Department of Structural Biology, Faculty of Biomedical Sciences, Medical University of Lodz, 90-752 Lodz, Poland

Dr. Andrzej Zieleniak

Department of Structural Biology, Faculty of Biomedical Sciences, Medical University of Lodz, 90-752 Lodz, Poland

Deadline for manuscript submissions

closed (15 September 2025)



Nutrients

an Open Access Journal
by MDPI

Impact Factor 5.0
CiteScore 9.1
Indexed in PubMed



mdpi.com/si/230672

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

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





Nutrients

an Open Access Journal
by MDPI

Impact Factor 5.0
CiteScore 9.1
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 (Nutrition and Dietetics)