

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.

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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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