

Special Issue

Human Diversity in Nutrient Metabolism: From Mechanisms to Precision Dietary Guidance

Message from the Guest Editor

Human diversity explains why individuals have distinct metabolic responses, differing nutritional requirements, and varying susceptibilities to diseases. Nutrigenetics explores how genetic variations affect individual responses to nutrients and dietary patterns, significantly impacting metabolic regulation, disease susceptibility, and treatment outcomes. Interactions between genes and the environment contribute to varied responses in complex common morbidities. Recent advancements in genomics, multi-omics integration, and machine learning have accelerated the identification of genetic variants linked to dietary impacts and metabolic pathways, facilitating better modeling of genotype–phenotype relationships. This Special Issue aims to enhance our understanding of how genetic variation influences nutrient metabolism and dietary needs across diverse populations. By merging fundamental biology with human variability and clinical relevance, it seeks to establish a robust basis for evidence-based precision nutrition, connecting molecular discoveries with practical applications in public health.

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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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