

Special Issue

Exploring Metabolomic Signatures and the Metabolic Impact of Thyroid Dysfunction

Message from the Guest Editor

Thyroid hormones are important regulators of metabolism and can influence energy balance, thermogenesis, lipid and glucose homeostasis, and protein metabolism. Alterations in thyroid function can significantly impact metabolic health and are associated with cardiometabolic disorders, weight dysregulation, and changes in body composition. Individual variability, possibly due to genetic factors, the gut microbiome, or unknown metabolic compensations, presents a particular challenge.

The aim of this Special Issue is to investigate the interactions between thyroid physiology, dysfunction, and treatment and metabolic health using traditional biomarkers and new omics technologies. We invite the submission of original research, clinical studies, and systematic reviews addressing one or more of the following areas:

- Metabolic and metabolomic profiling in hypothyroidism or hyperthyroidism;
- The role of thyroid hormones in regulating specific metabolic pathways;
- Metabolic response to thyroid treatment (pharmacological or non-pharmacological);
- Interactions between thyroid function, diet, and nutrient metabolism;
- Longitudinal studies on the relationship between thyroid status and metabolic risk.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

Editor-in-Chief

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Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.7 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the second half of 2025).