

Special Issue

Molecular Basis and Oxidative Stress of Thyroid Diseases

Message from the Guest Editors

This Special Issue aims to gather the most recent research on the molecular mechanisms and the role of oxidative stress in the etiology and progression of thyroid diseases.

Thyroid cancer, thyroid dysfunction (hypo- and hyperthyroidism), and different types of thyroiditis and autoimmune thyroid diseases (such as Hashimoto thyroiditis or Graves' disease) are complex conditions affected by genetic, environmental, and immunological factors. Recent studies have highlighted the significant impact of oxidative stress—an imbalance between reactive oxygen species (ROS) formation and antioxidant defense—on thyroid health. Understanding the molecular basis of these diseases and the potential contribution of oxidative stress can improve diagnostic and therapeutic strategies. We invite you to contribute your valuable research to this Special Issue. Key topics of interest include, but are not limited to: Molecular Mechanisms of Thyroid Hormone Synthesis and Regulation

Oxidative Stress and Thyroid Dysfunction

Genetic and Epigenetic Factors

Immune System and Inflammation

Antioxidant Defence Mechanisms

Novel Therapeutic Approaches

Guest Editors

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Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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