Special Issue

Immune Response to Allergens

Message from the Guest Editor

Allergy is one of the most common chronic conditions with dramatically increasing prevalence wordwide (varies between 10% and 40% of the population), caused by an imbalance of the immune response. The immune system is substantial for maintaining homeostasis and normally plays a specific role in defending organisms against diverse antigens. However, some biomolecules may act as allergens, overstimulate the immune system, and induce inflammatory reactions. The manifestation of these allergen-induced reactions may cause a variety of clinical symptoms, from allergic rhinitis, asthma, food allergy, etc., to a systemic, life-threatening allergic reaction—anaphylaxis. This is why discovering the exact protein that may lead to allergy and a detailed understanding of specific allergen-induced immune responses are crucial for the development of novel diagnostic and personalized treatment modalities. In this Special Issue of Biomolecules, original research and/or review articles that describe immune mechanisms caused by allergens, the newest diagnostic tools, and allergen-based approaches of immunomodulation are welcome.

Guest Editor

Prof. Dr. Brigita Gradauskiene

Department of Immunology and Allergology, Lithuanian University of Health Sciences, Eiveniu str. 2, LT-50161 Kaunas, Lithuania

Deadline for manuscript submissions

31 October 2025



Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/237796

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

mdpi.com/journal/biomolecules





Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8 CiteScore 9.2 Indexed in PubMed



About the Journal

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.

Editors-in-Chief

Prof. Dr. Peter E. Nielsen

Department of Cellular and Molecular Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Blegdamsvej 3C, DK-2200 Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan

Department of Computer Science, Virginia Commonwealth University, Richmond, VA 23284, 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, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Biochemistry)

