Special Issue

The Immune Response to Severe Trauma

Message from the Guest Editor

Severe trauma remains one of the leading causes of death and disability worldwide, with outcomes often dictated not only by the primary injury but also by the host's immune response. Trauma initiates rapid and profound pro- and anti-inflammatory immunological responses that can protect against infection and aid repair but also predispose patients, in the short and long term, to systemic inflammation, immune suppression, sepsis, and multi-organ failure. Despite progress in resuscitation and critical care, trauma-induced immune dysregulation continues to drive high morbidity and mortality. This Special Issue will explore the molecular mechanisms underpinning post-trauma immune dysregulation as well as the clinical consequences of these immune responses, from early biomarkers of immune dysfunction to therapeutic strategies aimed at modulating immunity for improving patient outcomes. By integrating basic discoveries with translational and clinical research, this collection seeks to advance our understanding of the immediate and long-term immune response to major trauma with the intention of improving the survival and recovery of severely injured patients.

Guest Editor

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Deadline for manuscript submissions

30 April 2026

Biomolecules

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/253997

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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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