

Special Issue

Immunological Regulation as Determinant of Outcomes in Critically Sick Patients

Message from the Guest Editor

This Special Issue aims to delve into the intricate relationship between immune system activation and the outcomes of critical illness, examining how the immune response influences recovery at short, medium, and long-term stages. Proper immune function is vital for managing tissue damage, responding to primary insults, and supporting recovery. Disruptions in immune regulation can lead to maladaptive inflammation and poor clinical outcomes.

Understanding mechanisms that regulate immune activation, such as damage-associated molecular patterns (DAMPs), pyroptosis, and gene regulation, is key to improving outcomes. Epigenetic and non-epigenetic gene regulation also modulate immune responses, offering potential therapeutic opportunities to restore immune balance. Additionally, the role of interactions between the immune system and other networks, including the microbiome and central nervous system, in recovery from critical illness is increasingly recognized.

We invite submissions from scholars in related fields. This issue welcomes a broad range of studies to enhance our understanding of immune regulation in critical illness and uncover strategies to optimize patient outcomes.

Guest Editor

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Deadline for manuscript submissions

closed (20 April 2026)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/231096

*International Journal of
Molecular Sciences*
Editorial Office
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