

## 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.

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### Guest Editor

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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