

Special Issue

Acute Kidney Injury Mechanisms: From Pathophysiology to Translational Therapeutics

Message from the Guest Editors

Acute kidney injury (AKI) remains a major clinical challenge, contributing to high rates of morbidity, mortality, and progression to chronic kidney disease.

This Special Issue will focus on the cellular, molecular, and systemic mechanisms that drive AKI in diverse clinical contexts, including sepsis, ischemia–reperfusion, nephrotoxic injury, and cardiorenal syndromes. This Special Issue will also place emphasis on the study of pathways of inflammation, oxidative stress, mitochondrial dysfunction, cell death, microvascular injury, and maladaptive repair. Contributions exploring novel biomarkers, animal models, and translational approaches that bridge experimental findings with clinical application are strongly encouraged.

By bringing together original research articles, reviews, and perspectives, this Special Issue aims to serve as a platform for advancing the knowledge of AKI pathophysiology and for identifying novel therapeutic opportunities. Through this integrative effort, we hope to bridge the gap between bench and bedside, ultimately improving outcomes for patients affected by acute kidney injury.

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You are invited to contribute a research article or a comprehensive review for consideration and publication in *Medicina* (ISSN: 1648-9144). *Medicina* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on medicine. The scientific community and the general public can access the content free of charge as soon as it is published.

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