

## Special Issue

# Cellular and Molecular Mechanisms in Cardiorenal Syndrome

### Message from the Guest Editors

Cardiorenal syndrome consists of an acute or chronic dysfunction of both the heart and kidney due to interactions between these organs. These pathologies can be of renal or cardiac origin. Renin-angiotensin-aldosterone system activation, mitochondrial dysfunction, inflammation, fibrosis, oxidative stress and tissue remodelling are related to organ dysfunction in patients with cardiorenal syndrome. Therefore, different mechanisms that implicate several molecular systems can worsen the cardiorenal syndrome. In-depth knowledge of the molecular mechanisms that are involved in cardiorenal syndrome might help us to understand the pathophysiological basis of this syndrome. In the same way, knowledge of these molecular mechanisms is essential for the research of novel therapeutical approaches that can be useful in the management of these patients. The goal of this Special Issue is to publish experimental and pre-clinical research articles or scientific reviews that study cellular and molecular mechanisms involved in cardiorenal syndrome. Articles can also be focused on the study of pharmacological approaches or pre-clinical assays that improve the progression of this syndrome.

### Guest Editors

Prof. Dr. Rosemary Wangenstein

Department of Fisiología, Universidad de Jaén, Jaén, Spain

Dr. María Carmen Ruiz Fuentes

Complejo Hospitalario, Universitario de Granada, Granada, Spain

Dr. Maria José Espigares Huete

Department of Medicine, University of Granada, Granada, Spain

### Deadline for manuscript submissions

28 February 2026



## Biomolecules

an Open Access Journal  
by MDPI

Impact Factor 4.8  
CiteScore 9.2  
Indexed in PubMed



[mdpi.com/si/230660](https://mdpi.com/si/230660)

*Biomolecules*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[biomolecules@mdpi.com](mailto:biomolecules@mdpi.com)

[mdpi.com/journal/  
biomolecules](https://mdpi.com/journal/biomolecules)





# Biomolecules

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.8  
CiteScore 9.2  
Indexed in PubMed



[mdpi.com/journal/  
biomolecules](https://mdpi.com/journal/biomolecules)



## 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)