

Special Issue

Stem Cell or Exosome-Based Therapy for Kidney and Urinary Tract Diseases: Mechanisms, Applications, and Future Perspectives

Message from the Guest Editor

This Special Issue explores the transformative potential of stem cell and exosome-based therapies for kidney diseases. We delve into the underlying mechanisms of action, including their ability to dampen inflammation, combat oxidative stress, counteract fibrosis, and tissue regeneration in the kidney, urethral sphincter, bladder, urethra, and pineal gland. However, a central focus is placed on translating promising preclinical findings into successful clinical applications. We will dissect the specific challenges encountered during this transition and propose potential solutions to expedite progress.

While established mechanisms such as anti-inflammation and antifibrosis remain crucial, this issue will showcase emerging pathways that hold significant promise. We will explore the exciting field of autophagy modulation and its potential role in kidney and lower urinary tract disease therapy, alongside delving into novel mechanisms such as immune cell interaction and their therapeutic implications.

This Special Issue offers a glimpse into the exciting future of stem cell- and exosome-based therapies for kidney and lower urinary tract disease.

Guest Editor

Dr. Yuanyuan Zhang

Wake Forest Institute for Regenerative Medicine, Wake Forest University Health Sciences, Winston-Salem, NC 27101, USA

Deadline for manuscript submissions

20 July 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/224138

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

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





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* 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, and molecular biophysics. *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.

Editor-in-Chief

Prof. Dr. José L. Quiles
Department of Physiology, Institute of Nutrition and Food Technology
"Jose Mataix", Biomedical Research Center, University of Granada,
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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, PMC, MEDLINE, Embase, CAPus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)