

Special Issue

Nanoparticles: The Future of Drug Delivery

Message from the Guest Editors

The emergence of nanotechnology has paved the way for the precise treatment of different diseases due to its intrinsic physicochemical properties. In this Special Issue, Nanotechnology focuses on nanoscale particles under 200 nm diameter and their delivery systems. Current drug delivery nanosystems includes liposomes, solid nanoparticles, nanoparticles, polymeric micelles, nanogels, and extracellular vesicles. Therapeutic agents can be loaded into the core or onto nanoparticle surface via chemical conjugation, physical encapsulation, or electrostatic adsorption. This process allows for the extended blood circulation of drugs, enhanced bioavailability, improved therapeutic responses, and reduced side effects. However, the designed nanosystems also face various challenges, including intrinsic toxicity, off-target effects and obstacles for clinical transformation. Accordingly, this Special Issue seeks to showcase research papers and review articles that focus on developments on novel nanosystems and their use in various biomedical applications. Moreover, comprehensive studies on the toxicity, degradation and metabolism of existing nanoparticles are also welcome.

Guest Editors

Prof. Dr. Yongzhong Du

College of Pharmaceutical Sciences, Zhejiang University, Hangzhou 310030, China

Dr. Xiaoling Xu

Shulan International Medical College, Zhejiang Shuren University, Hangzhou 310009, China

Deadline for manuscript submissions

closed (30 November 2023)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/151850

Micromachines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
micromachines@mdpi.com

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





Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2025).