



## Nanoparticles in Drug Delivery: Present and Future Trends

Guest Editors:

**Prof. Dr. Carmen S. R. Freire**

CICECO—Aveiro Institute of Materials, Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal

**Dr. Bárbara Leite Ferreira**

Aveiro Institute of Materials (CICECO), Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal

Deadline for manuscript submissions:

**closed (30 June 2023)**

### Message from the Guest Editors

Dear Colleagues,

In recent decades, the great development of bioengineering and medical biotechnology has facilitated the design and production of nanoparticles exhibiting unique physicochemical and biological properties favorable for drug delivery applications. The key advantages of nanoparticles are (I) improved bioavailability by enhancing aqueous solubility, (II) increased half-life for clearance, and (III) targeting of therapeutic agents to its specific site of action. This results in concomitant reduction in the quantity of drugs required and dosage toxicity, enabling the safe delivery of toxic therapeutic drugs and protection of non-target tissues and cells from severe side effects. The main aim of this Special Issue is to focus on present and future developments of nanoparticles as drug delivery systems. Addressed topics include but are not limited to organic (synthetic, (bio)polymer-based, and lipid nanoparticles) and inorganic nanoparticles (gold, magnetic, silica nanoparticles, etc.) for the delivery of therapeutic agents, and nanoparticles for health applications in general.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Anthony Guiseppi-Elie**

Department of Biomedical  
Engineering, Texas A&M  
University, College Station, TX  
77843, USA

## Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Bioengineering* (ISSN 2306-5354). *Bioengineering* is published in 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 and free access to the content as soon as it is published. *Bioengineering* provides an advanced forum for the science and technology of bioengineering. We would be pleased to welcome you as one of our authors.

## 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, CAPlus / SciFinder, Inspec, and other databases.

**Journal Rank:** JCR - Q2 (*Engineering, Biomedical*)

**Rapid Publication:** manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.6 days after submission; acceptance to publication is undertaken in 3.1 days (median values for papers published in this journal in the first half of 2024).

## Contact Us

*Bioengineering* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/bioengineering](http://mdpi.com/journal/bioengineering)  
[bioengineering@mdpi.com](mailto:bioengineering@mdpi.com)  
X@Bioeng\_MDPI