



materials



an Open Access Journal by MDPI

Advanced Biomaterials for Early Detection, Drug Delivery, Treatment and Prognosis in Cancer

Guest Editors:

Dr. Tanmay Kulkarni

Assistant Professor, Department of Biochemistry and Molecular Biology at Mayo Clinic Florida, Jacksonville, FL, USA

Dr. Krishnendu Pal

Assistant Professor, Department of Biochemistry and Molecular Biology at Mayo Clinic Florida, Jacksonville, FL, USA

Deadline for manuscript submissions:

closed (10 April 2025)

Message from the Guest Editors

Cancer remains one of the most difficult pathologies to treat owing to dense stroma, late detection, and resistance to drugs. The drawbacks of conventional drug delivery include nonspecific targeting, toxicity, reduced efficacy, and a low therapeutic index. Moreover, the lack of real-time prognosis often results in under- or overtreatment, ultimately leading to drug resistance or toxicity, respectively. This Special Issue aims to encourage the design and testing of advanced biomaterials for early detection, drug delivery, treatment, and prognosis that will overcome the limitations of conventional drug therapy. While the focus is on the synthesis and therapeutic/theranostic evaluation of these advanced biomaterials, this multidisciplinary field is extended to incorporate nano- and macroscale biophysical attributes of advanced biomaterials and their interaction with biological components both *in vitro* and *in vivo*. Manuscripts with a scientifically sound approach backed with mechanistic insights into therapeutic implications/translational effects are highly encouraged. Review articles covering the present state-of-the-art technologies are also welcomed.



mdpi.com/si/165498

Special Issue



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)