

Special Issue

Applications of Biomaterials and Micro/Nano Devices in Biomedicine

Message from the Guest Editor

The intersection of materials science, engineering, and biology is driving a paradigm shift in disease diagnosis, therapy, and regenerative medicine. This collection of papers explores the emerging role of biomaterials and micro- and nanoscale devices in modern biomedicine, with a particular focus on the design and fabrication of high-performance functional structures for biomedical applications, their safety profiles and their biological interactions. Key areas of interest include advanced drug delivery systems utilizing both synthetic nanoparticles and natural nanovesicles, alongside the development of biosensors and implantable diagnostic platforms. By prioritizing the pharmacokinetic, toxicological, and safety profiles of these technologies, we aim to highlight innovations that significantly improve biocompatibility and therapeutic precision. We welcome submissions investigating these micro- and nanodevices in in vitro and in vivo models, as well as in clinical trials, to support their translation from experimental research to clinical application.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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