# Special Issue

# Nanomaterials in Medicine and Healthcare

## Message from the Guest Editor

Nanotechnology is revolutionizing medicine and healthcare by offering cutting-edge solutions for diagnosis, treatment, and disease prevention. Nanomaterials, with their unique nanoscale properties, enable precise drug delivery, enhance diagnostic imaging, and drive advances in regenerative medicine: for instance, they facilitate targeted therapies, improve imaging sensitivity for early disease detection, and create scaffolds that support tissue regeneration. In the infection domain, nanomaterials provide innovative approaches, including antimicrobial nanoparticles which neutralize pathogens, coatings which prevent bacterial adhesion on medical devices, and strategies to tackle antibiotic resistance by disrupting biofilms and enhancing antibiotic efficacy. Despite these advancements, challenges such as biocompatibility, toxicity, and regulatory hurdles persist. This Special Issue on "Nanomaterials in Medicine and Healthcare" features research articles and reviews that showcase recent developments and future directions in the field, aiming to inspire further research and collaboration to advance nanomedicine and enhance patient outcomes.

## Guest Editor

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## Deadline for manuscript submissions

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# About the Journal

## Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

## Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones
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