Special Issue

Immune Responses to Nanomaterials for Biomedical Applications

Message from the Guest Editor

Our interest is focused on biomedical applications of nanotechnologies to improve the therapeutics' performances, as well as diagnostics. Successful nanodevices for drug or gene delivery, imaging or synthesized with materials acting per se (e.g., nanozimes) require full biocompatibility. Recent literature has highlighted the importance of host immune responses to nanomaterials as a critical issue to be addressed in order to create safe-by-design nanotools.

The present Special Issue would like to overcome the "classical nanotoxicology" as limited to toxicity results on cell death mechanisms, rather providing information on the several interactions that the immune system has with nanomaterials developed to biomedical applications. Novel results on immune cell, tissue or different animal models' inflammatory responses to nanomaterials will be welcome, as well as critical review articles challenging the present knowledge and offering an expert platform to discussion.

Guest Editor

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Deadline for manuscript submissions

closed (15 October 2020)



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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 nanometerscale 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

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