Special Issue

Interaction of Nanomaterials with Biological Systems: In Vitro and In Vivo Studies

Message from the Guest Editors

An increasing number of research centers all around the world are working in the fields of nanomedicine and nanopharmacology, attempting to develop new nanoproducts for the diagnosis and treatment of a number of pathologies. Nevertheless, the biological behavior of NM is highly variable, and often unpredictable. Delving into the biological effects of NM, both in vitro and in vivo, and identifying the potential modifying factors or conditions, would help to clarify the biological behavior of NM in each case. This would eventually increase our understanding of the biocompatibility of the different types of NM, improving their safety when used in consumer products and medical applications.

Accordingly, the potential topics of interest for this Special Issue include, but are not limited to, the following:

- Biocompatibility and bioavailability of nanomaterials;
- In vitro and in vivo effects of nanomaterials:
- Biological behavior of nanomaterials;
- New approaches for nanotoxicology assessment;
- Alternative methods for nanotoxicology screening.

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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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