

Special Issue

Nanomaterials-Cell Interaction: Cytotoxicity/Therapeutic Potential

Message from the Guest Editor

This Special Issue deals with all aspects of cytotoxicity and the therapeutic potential of nanomaterials (NM) at the cellular level. Due to their many unique physicochemical properties, NM have significant therapeutic importance for treating, e.g., cancer, cardiovascular diseases, orthopedic diseases or bacterial and viral infections, as active factors, cell matrices or drug transporters. However, NM may induce cytotoxic effects such as overproduction of free radicals or DNA damage. The greatest challenge for NM is therefore to refine their concentrations, functional group modifications or sizes for specific medical applications to enhance their selectivity. Testing the cytotoxicity and functional activity of several different cell lines is the first step to verify the clinical use of NM. This Special Issue focuses on the design and characterization of NM and their future clinical applications, with emphasis on the current challenges and their future direction. It is my pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editor

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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 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.

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