Special Issue

Carbon-Based Nanomaterials for Biomedicine Applications

Message from the Guest Editor

After the discovery of fullerenes, the potential biomedical applications of carbon nanoparticles (CNPs), including nanotubes, nanohorns and graphene, have been widely researched. However, no such drug or medical device has yet legally entered the market. Obviously, it was the fear of the alleged dangers of CNPs instilled by certain authors in 2000 after the National Nanotechnology Initiative in the USA, that caused the sudden halt in the development of CNPs in the biomedical field and the subsequent mistrust and disinterest of the pharmaceutical industry. Scientific confirmation has since been made that the toxicity observed with certain fullerene preparations can only be attributed to the impurities present in these preparations. Nevertheless, there is still a long way to go because, as with any drug candidate, the safety of each new CNP and/or formulation, as well as its fate in a living organism (ADME), must be tested before entering clinical trials. This Special Issue aims to discuss the use of CNPs for diagnostic and/or therapeutic purposes. The goal is to provide a springboard for renewed interest from researchers and potential investors in the healthcare sector.

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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