



Effects, Analysis and Applications of Nanomaterials in Biological Systems

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Message from the Guest Editors

Dear Colleagues,

Biological systems function at the nanoscale, communicating with one another using nanosized packages, activating functions using nano-switches and building structures based on biological nanomaterials. Not surprisingly, synthetic nanomaterials can manipulate these biological systems to create desired outcomes in both healthy protective functions and pathology. The effect of nanomaterials on biochemical pathways and biomarker expression is still poorly understood, and in order to design smart, biologically relevant nanomaterial interventions, we must first further elucidate the complex ways in which biological systems interact with nanomaterials. In this Special Issue, we will explore how nanobiotechnology and biomaterial engineering is expanding our understanding of nanotoxicity, tissue engineering and drug delivery. This issue will bring together expertise in environmental toxicology, metrology, nanopharmacology, nanomaterial synthesis and synthetic biology to define the nexus in these developing areas. See more information in

<https://www.mdpi.com/si/64320>

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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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