

Special Issue

Lung Cell Toxicity of Metal-containing Nanoparticles

Message from the Guest Editors

Lung cell toxicity is a critical aspect in the field of nanotoxicology due to the fact that inhalation is an important exposure route. Among the various nanomaterials present in society, many contain metals. The metal-containing nanoparticles show differences in toxicity depending, e.g., on size, surface reactivity, and dissolution kinetics. The cellular effects include inflammation, genotoxicity, oxidative stress, and epigenetic alterations. This Special Issue highlights recent advances in the understanding of lung cell toxicity of metal-containing nanoparticles. It focuses on mechanisms underlying toxicity, links to nanoparticle characteristics, in vitro–in vivo correlations, and novel methods, such as air–liquid interface exposures and the use of cocultures. The Special Issue is open to original research articles as well as review papers that help researchers around the world understand the lung cell toxicity of metal-containing nanoparticles, with a focus on novel mechanisms and methods.

Guest Editors

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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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