



From Basic Research to New Tools and Challenges for the Genotoxicity Testing of Nanomaterials

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Message from the Guest Editors

This Special Issue is open to contributions presenting studies on the genotoxicity of nanomaterials. The human population is exposed to a broad diversity of nanomaterials either manufactured or found naturally. Issues are regularly faced when addressing risk assessments for nanomaterials, and their increasing use in consumer products raises public health concerns. Papers reporting on the following are welcome: i) the role of the physico-chemical characteristics of nanomaterials (shape, size, protein corona, coating) including modifications occurring throughout their lifecycle as part of the genotoxic response; ii) investigation of the interference with in vitro genotoxicity assays including improved protocols or new methods to overcome this interference; iii) conditions for genotoxicity testing including the cell line(s) to be used, maximum dose/concentration and the method of nanomaterial dispersion; iv) proposals for nanomaterial reference controls; and finally v) the development of new tools as well as new approaches (grouping, ranking, safe(r)-by-design, read-across, etc.) to improve and facilitate genotoxicity testing.





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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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