



BioMed Research International

Special Issue on  
**Toxicity of Nanomaterials**

# CALL FOR PAPERS

This decade has seen revolutionary developments in the field of nanotechnology with newer and diverse applications of nanoparticles appearing every day. However, there are limited data about the toxicity of nanoparticles and their fate in biological systems. It is yet to prove scientifically that particle size, shape, surface area, and surface chemistry collectively define the toxicity of nanoparticles. Increased production and intentional (sunscreens, drug delivery) or unintentional (environmental, occupational) exposure to nanoparticles is likely to increase the possibilities of their adverse health effects. It is crucially important that novel nanomaterials must be biologically characterized for their health hazards to ensure risk-free and sustainable implementation of nanotechnology.

This special issue invites authors to contribute original research articles as well as review articles that will stimulate the continuing efforts to understand the toxicological properties and biocompatibility of nanomaterials.

Potential topics include, but are not limited to:

- ▶ In vivo and in vitro toxicities of nanomaterials
- ▶ Effects of shapes, sizes, and coating materials on toxicity of nanoparticles
- ▶ Role of solubility, adsorptivity, and stability on toxicity of nanomaterials
- ▶ Impact of route of exposure on toxicological properties of nanomaterials
- ▶ Biochemical, immunological, and molecular mechanisms of nanomaterials toxicity
- ▶ Safety and biocompatibility of nanomaterials
- ▶ Factors affecting the organ-specific retention/clearance of nanomaterials
- ▶ Stability, retention, and degradation of quantum dots in the body
- ▶ Modalities for reducing the toxicity of nanomaterials

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