



## Effects of Nanoparticles on Living Organisms 2.0

Guest Editor:

**Dr. Yoshitaka Miyamoto**

Department of Maternal-Fetal  
Biology, National Research  
Institute for Child Health and  
Development, Tokyo, Japan

Deadline for manuscript  
submissions:

**31 October 2024**

### Message from the Guest Editor

This Special Issue aims to examine the effects of nanoparticles on living organisms (human or animal, organs, tissues, and cells). Nanoparticles are used in food, agriculture, drug discovery, and medicine (prevention and diagnosis). For example, in the medical field, it is used as a contrast agent in MRI and PET to reveal the internal structure of blood vessels, organs, and tissues. In the drug discovery field, drugs must be safe and effective, and must be able to be delivered to the target site. Therefore, we need to understand the properties and behavior of nanoparticles.

Nanoparticles that have adsorbed or absorbed toxic substances, particulate matter (e.g., PM<sub>2.5</sub>), and inorganic dust in the environment significantly impact living organisms in terms of health effects, exposure, toxicity, and body dynamics and deposition. In the current social discourse, particulate matter is cited as key to the risk of viral infections and serious illnesses. We call for reports on the effects of nanoparticles on living organisms (nanoparticles functionalization, in vitro/in vivo evaluation, 3D models, ADME, toxicity, and biomedical applications, etc.) at the molecular level.

