Proceedings International
Open-Access Journal (ISSN: 2668-6384)

Proceedings, Abstract
Volume 6, Issue 1, 2024, 27
https://doi.org/10.33263/Proceedings61.027

Gold and Silver Nanoparticles-An Assessment of the Risks Posed by Toxicity to Human Health and Environment in Modal Organism †

Samriti Parashar [1], Priyanka Verma [1,*]

[1] Department of Forensic Science, UIAHS, Chandigarh University, Mohali, Punjab, India; drishti105111@gmail.com (S.P.); priyanka.pharma@cumail.in (P.V.);
* Correspondence: priyanka.pharma@cumail.in (P.V.);
† Presented at 3rd National Conference on Environmental Toxicology: Impact on Human Health (Env-Tox 2024)
Received: 16.02.2024; Accepted: 20.03.2024; Published: 28.03.2024

Abstract: This review paper comprehensively assesses the risks posed by gold and silver nanoparticles to human health and the environment, with a specific focus on embryotoxicity. It explores these nanoparticles' sources and synthesis methods, emphasizing potential environmental implications. The paper investigates the mechanisms of interaction with the human body, detailing pathways of exposure and absorption and examining adverse effects on embryonic development. Additionally, it addresses the side effects of gold nanoparticles and proposes potential treatments while also offering strategies to avoid embryotoxicity. The review concludes by highlighting the importance of regulations, guidelines, and the development of safer nanomaterials to ensure the responsible and beneficial use of Au and Ag nanoparticles.

Keywords: silver-gold nanoparticles; nanoparticle toxicity; human health; environmental impact; embryotoxicity.

Funding

This research received no external funding.

Acknowledgments

None.

Conflicts of Interest

The authors declare no conflict of interest.