

## APPLICATION OF NANOTECHNOLOGY TO PLANT BIOTECHNOLOGY

Nayan Tara<sup>1</sup> and Meena<sup>2\*</sup><sup>1</sup>Department of Bio and Nanotechnology, Guru Jambheshwar University of Science and Technology, Hisar (Haryana)125004<sup>2</sup>Microbial Resource Technology Laboratory, Department of Microbiology Kurukshetra University, Kurukshetra (Haryana) 136119  
Email: [meenasindhu20@gmail.com](mailto:meenasindhu20@gmail.com)

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**Abstract:** Nanotechnology is one of the most fascinating and promising science field having ability to transform research in different disciplines of science such as agriculture, medicines, diagnostics and even plant tissue culture. Plant tissue culture is one of the fundamental techniques of plant biotechnology. It not only involved in the micropropagation of endangered plant species but also provide aseptic explants for transformation. But plant tissue culture technique have plethora of methodological obstacles which prevent its full exploitation, such as contamination of explants. This paper mainly presents a review on uses of nanomaterials in plant tissue culture such as decontamination of plant tissue culture and role of NPs in intracellular delivery of biomolecules such as enzymes, proteins and DNA in plant cells.

**Keywords:** Nanoparticles, Decontamination, Intracellular delivery, Plant transformation

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\*Corresponding Author

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