

# Dr. Deepika Tripathi

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## EDUCATION

- High School, Science, U. P. Board, India- 2006 (72.3 %).
- Intermediate, Biology, U. P. Board, India- 2008 (66.2 %)
- B. Sc. (Botany, Zoology, Chemistry), D.D.U. Gorakhpur University, U. P. India- 2011 (70.8 %).
- M. Sc. Botany, Banaras Hindu University, U. P. India- 2013 (82.2 %)
- Ph.D. awarded in Botany, thesis entitled “***In-vitro* conservation and enhanced production of bioactive compounds with high medicinal efficacy from *Withania coagulans* (L.) Dunal**” (2019) from Department of Botany, Banaras Hindu University, U. P. India (84.12 %)

## PROFESSIONAL EXPERIENCE

- Assistant Professor (Botany), Govt. G.N.A. P.G. College, Chhattisgarh (2023–Present)
- DBT-RA Fellow, G.B. Pant National Institute of Himalayan Environment, Almora- Uttarakhand (2020–2023)
- Research Associate, CSIR-CIMAP, Lucknow, Uttar-Pradesh (2020)

## AWARDS & FELLOWSHIPS

- CSIR-UGC JRF & NET Qualified
- DBT-RA Fellowship
- Best Poster Award (BHU Symposium-2019)
- Life Member: Indian Botanical Society (IBS) & ISCA

## RESEARCH PROFILE

Ph.D. in Botany with ~10 years of research experience in plant tissue culture, secondary metabolite production, and plant nanobiotechnology. Expertise in *in-vitro* conservation, micropropagation, plant-based nanoparticles synthesis, nanoparticle-mediated enhancement of plant growth and bioactive compounds, and nanoparticles biological activity assessment as antioxidant, antimicrobial and therapeutic agent. My research focuses on integrating tissue culture and nanotechnology for sustainable improvement of medicinal plants.

## RESEARCH PUBLICATIONS & METRICS

Total Publications: 27

h-index: 10

i10-index: 10

Google Scholar: <https://scholar.google.com/citations?user=TgJmekoAAAAJ&hl=en>

## SELECTED FIVE BEST PUBLICATIONS

- **Deepika Tripathi**, Apoorva, Niraj Kumar Goswami, and Shashi Pandey- Rai (2024) Interactive effect of biogenic nanoparticles and UV-B exposure on physio-biochemical behavior and secondary metabolism of *Artemisia annua* L. *Plant Nano Biology*. 10: 100097. (IF:7.7)
- **Deepika Tripathi**, Mithilesh Singh, and Shashi Pandey-Rai (2022) Crosstalk of nanoparticles and phytohormones regulate plant growth and metabolism under abiotic and biotic stress. *Plant Stress*. 100107. DOI: <https://doi.org/10.1016/j.stress.2022.100107> (IF: 6.9)
- **Deepika Tripathi**, Krishna Kumar Rai and Shashi Pandey Rai (2021) Impact of green synthesized WcAgNPs on *in-vitro* plant regeneration and withanolides production by inducing key biosynthetic genes in *Withania coagulans*. *Plant cell reports*. 40: 283-299. <https://doi.org/10.1007/s00299-020-02630-z> (IF: 4.5)
- **Deepika Tripathi**, Arusha Modi, Gopeshwar Narayan, Shashi Pandey-Rai (2019) Green and cost-effective synthesis of silver nanoparticles from endangered medicinal plant *Withania coagulans* and their potential biomedical properties. *Material science and engineering C*. 100, 152-164. (IF: 7.9)
- **Deepika Tripathi**, Krishna Kumar Rai, Sanjay Kumar Rai and Shashi Pandey-Rai (2018) An improved thin cell layer culture system for efficient clonal propagation and *in vitro* withanolide production in a medicinal plant *Withania coagulans* Dunal. *Industrial crops and products*. 2018; 119(C):172-182 ISSN: 0926-6690. (IF: 6.2)

## PEER REVIEW & ACADEMIC SERVICES

Reviewer for journals such as:

*BioNanoScience, Scientific Reports, Plant Cell, Tissue and Organ Culture (PCTOC), Discover Nano, Nanotechnology for Environmental Engineering, Vegetos*

## ADMINISTRATIVE RESPONSIBILITIES

- Assistant Superintendent - University/College Examinations
- Convenor - Red Cross Committee
- Member- IQAC, Internal complaint committee, Feedback Committee, Research and development cell, Cultural committee.

## KEY STRENGTHS

- Strong research- teaching integration
- Expertise in plant tissue culture and nanobiotechnology
- Ability to translate research into practical applications

## PARTICIPATION IN ORIENTATION COURSES/ REFRESHER COURSES/ WORKSHOPS/ FDPS ETC.

- Participated in the “Guru Dakshata Programme,” organized by UGC-MMTTC at University of Kashmir, from 07 October to 07 November 2025.

- Participated in the “Refresher Course in Basic & Applied Sciences” organized by UGC-MMTTC at Guru Nanak Dev University, Amritsar, from 23 February to 07 March 2026.
- Participated in a seven-day National Faculty Development Program on “Indian Knowledge System,” organized by Govt. Lehari PG College, from 05 April to 12 April 2025.
- Participated in the Faculty Development Programme on “Gender Inclusion and Equality Initiative,” organized by Government Laxman Prasad Vaidya Kanya Mahavidyalaya, from 11 March to 17 March 2026.

## **TEACHING PHILOSOPHY**

Focus on concept-based, interactive and application-oriented teaching to enhance student understanding and critical thinking.