

Name: Dr. Neha Tiwari

Designation: Assistant Professor

Qualification: M.Sc.(Gold Medalist), Inspire Fellow, Ph.D.

Specialization: Nutraceuticals, Medicinal Plants, Plant Physiology.

Department of Botany,
Indira Gandhi National Tribal University,
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AREA OF INTEREST

My Research is focused on exploring plant-derived bioactive compounds for their therapeutic potential and understanding the physiological mechanisms that regulate their production. Emphasis is on identifying and enhancing phytochemicals with antioxidant, anti-inflammatory, anticancer and neuroprotective; aiming to optimize cultivation practices, improve yields of medicinal compounds, sustainable sourcing, conservation of endangered medicinal plants and validation of traditional herbal remedies using modern pharmacological approaches.

Professional and Academic Details

- Assistant Professor (December,2023-Present).
- Ph.D. (2014-2019), Department of Botany, DDU Gorakhpur University, Gorakhpur.
- M.Sc. (2013) in Botany, Department of Botany, DDU Gorakhpur University, Gorakhpur.
- B.Sc. (2011), DDU Gorakhpur University, Gorakhpur.

TEACHING RESPONSIBILITIES & RESEARCH GUIDANCE

- Teaching Experience (from December 2023-Present)
- Papers in UG: Cytology & Genetics, Cytogenetics & Evolution, Molecular Biology, Plant Diversity
- Papers in PG: Cytogenetics & Plant Breeding, Plant Biotechnology, Instrumentation, Techniques & Biostatistics, Phycology & Bryology.
- **M.Sc. Dissertation(s) guided: 03**
- **Ph.D. ongoing: 01**

ADMINISTRATIVE RESPONSIBILITIES

- Maintenance Warden in New Girls Hostel, Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh.

MEMBERSHIPS OF PROFESSIONAL BODIES

1. Botanical Society of America (BSA)
2. Indian Botanical Society (IBS),
3. Indian Science Congress Association (ISCA).

RESEARCH PUBLICATIONS

- **Neha Tiwari** and V.N. Pandey. 2016. Ethnobotanical and phytochemical analysis of *Schleichera oleosa* (Lour.) Oken. *Trends in Life Sciences*, **5** (2): 12-22, ISSN: E- 2319-5037, P-2319-4731.
- **Neha Tiwari** and V.N. Pandey. 2017. Qualitative and Quantitative phytochemical screening of secondary metabolites in seeds of *Schleichera oleosa* (Lour.) Oken. *International Journal of Scientific Research in Science, Engineering and Technology*, **3** (6): 357-359, ISSN: 2394-4099.
- V.N. Pandey, R.K. Pandey, A.K. Dwivedi, A.K. Srivastava, R.N. Gupta, Vivek Srivastava, Nidhi Gupta, Alka Gupta, **Neha Tiwari**, Vineeta Singh, Anita Rao, Shipra Pandey. 2017. Intellectual Property and Intellectual Property Rights. Proceedings of National Workshop on Intellectual Property Rights, Geographical Identification and Innovation Management, DDU Gorakhpur University, Gorakhpur, March 22-23.
- V.N. Sharma, A.K. Srivastava, Neeraj Srivastava, V.S. Pandey, **Neha Tiwari**, Anita Rao and V.N. Pandey. 2017. Geographical Indications. Proceedings of National Workshop on Intellectual Property Rights, Geographical Identification and Innovation Management, DDU Gorakhpur University, Gorakhpur, March 22-23.
- **Neha Tiwari**, Vageshwari, Shipra Pandey, Vineeta Singh, Anita Rao, V.S. Pandey and V.N. Pandey. 2018. Phytochemical and Pharmacognostical standardization of stem bark of *Schleichera oleosa* (Lour.) Oken. *International Journal of Advanced Research and Reviews*, **5** (12): 467-4674, ISSN: E-2348-1269, P-2349-5138.
- Anita Rao, Vineeta Singh, Shipra Pandey, Vageshwari, **Neha Tiwari** and V.N. Pandey. 2018. Pharmacological Assessment and Phytochemical Screening of Young shoot of aquatic medicinal herb *Sagittaria sagittifolia* L. (Arrowhead). *Journal of Emerging Technologies and Innovative Research*, **5** (12): 253-263, ISSN:2349-5162.
- Shipra Pandey, Vineeta Singh, Anita Rao, **Neha Tiwari**, Vageshwari and V.N. Pandey. 2018. Antioxidant activity of stem bark of elephant apple in different solvents. *Journal of Drug Delivery and Therapeutics*, **8** (6): 311-313, ISSN:2250-1177.
- Vineeta Singh, Anita Rao, Shipra Pandey, V.S. Pandey, **Neha Tiwari** and V.N. Pandey. 2019. Qualitative and quantitative determination of phytochemicals from flowers of Spanish cherry tree. *Journal of drug delivery and therapeutics*, **8** (6): 182-186, ISSN:2250-1177.
- Ishwar Das, V.N. Pandey, Namita R. Agarwal, **Neha Tiwari** and Shoeb A. Ansari. 2018. Fractal growth patterns in Science and Technology. *Science and Culture*, 170.
- Sarvesh Patel, Manoj Kumar Chaubey, **Neha Tiwari**, Ishwar Das and V.N. Pandey. 2019. Teasle guard (*Momordica dioica* Roxb. Ex. Willd): Nutraceutical attributes and phytochemical characterization. *International Journal of Advanced Research and Reviews*, **6** (2):989-997, ISSN: 2349-5138.
- Anita Rao, Vageshwari, Vineeta Singh, V.S. Pandey, **Neha Tiwari**, Ajay Dhawal and V.N. Pandey. 2019. Biofunctional Potential and utilization of *Sagittaria sagitifolia* L. Local Environmental changes have global Effect (LECGE-2019).
- Manoj Kumar Chaubey, **Neha Tiwari**, Sarvesh Patel and V.N. Pandey. 2019. Ethno medicinal, biological and preliminary phytochemical analysis of some plants of Gorakhpur forest division, U.P., India. *International Journal of Pharmacy and Biological Sciences*, **9**(3): 1079-1087, ISSN: 2321-3272.

CHAPTERS

- V.N. Pandey, **Neha Tiwari**, V.S. Pandey, Anita Rao and Ishwar Das. 2019. Targeted drug delivery and gene therapy through natural biodegradable nanostructures in pharmaceuticals. *Nanoarchitectonics in Biomedicine, Elsevier* pp-437-472.
- V.N. Pandey, **Neha Tiwari**, V.S. Pandey, Ishwar Das et al., 2021. Ethnobotany, Phytochemistry and Pharmacological activities of *Schleichera oleosa* (Lour.) Oken. In Book: Ethnomedicinal Plants: Revival of traditional knowledge, *Agrobios Research*, pp-239-260.

AWARDS/FELLOWSHIP

- Prof. **K.S. Bhargawa Gold Medal**, DDU Gorakhpur University, Gorakhpur.
- Prof. **Janki Prasad Bhargawa Gold Medal**, DDU Gorakhpur University, Gorakhpur.
- Prof. **A.K. Srivastava Gold Medal**, DDU Gorakhpur University, Gorakhpur.
- **University Gold Medal**, DDU Gorakhpur University, Gorakhpur.
- **Inspire Fellowship** (2014-2019), Department of Science and Technology, New Delhi.
- First Prize in **Oral Presentation** on topic, “Evaluation of DPPH free radical scavenging activity of stem bark of *Schleichera oleosa* (Lour.) Oken” in National Conference on Emerging Trends and Advances in sustainable utilization and conservation of plant, Marwar Business School, Gorakhpur, 25-26th February, 2019.

PAPERS PRESENTED IN NATIONAL /INTERNATIONAL SEMINARS/ CONFERENCES

- Presented a paper in National conference on challenges of biological and environmental science in 21st century on topic “Therapeutic potential of *Schleichera oleosa* (Lour.) Oken held in department of Zoology, Saraswati vidya mandir mahila P.G. College, Gorakhpur, Dec 19&20, 2014.
- Presented a paper in National seminar on Advances in biological sciences on topic, “Systematics and Utilization of *Schleichera oleosa* (Lour.) Oken” held at Department of Botany, Marwar Business School, Gorakhpur on March 29, 2014.
- Presented a paper in 38th All India Botanical Conference on “Botanical and Biofunctional Characterization of *Schleichera oleosa* (Lour.) Oken” held at Department of Botany, University of Rajasthan, Jaipur, 25-27 October, 2015.
- Presented a paper in national conference on climate change, medicinal plants and public health: strategizing an ethnobotanical-social resilience on topic, “Ethno-----Oken” organised by Department of Botany, St. Andrews College, Gorakhpur during January 27-28, 2016.
- Presented a poster in National Conference on Plant Medicine, Biodiversity-Climate link on topic “Taxonomy and Biosystematics of *Schleichera oleosa* (Lour.) Oken held at Department of Botany, Marwar Business School, 2-3rd February, 2016.
- Presented a paper in National Conference on Agrotechnology, Commerce and Sustainable use of medicinal and aromatic plants on topic, “Medicinal and biofunctional characterization of *Schleichera oleosa* (Lour.) Oken held at National agricultural science centre (NASC) complex, PUSA campus, New Delhi, Feb 6-7, 2016.
- Presented a paper in National Conference on Changing Environment, Plants, Diseases and Human-health vulnerability and impact assessments for adaptation to climate change: The road to future, Sponsored by SERB-DST, New Delhi on topic, “Biodiversity and distribution of *Schleichera oleosa* (Lour.) Oken organised by St. Andrews College, Gorakhpur during 9&10 November, 2016.
- Presented a poster in International Conference on structure and dynamics of biomolecules held at Department of physics, DDU Gorakhpur University, Gorakhpur on topic, “Site-Specific drug delivery through natural nanostructures in Pharmaceuticals, January 27-28, 2017.
- Presented a paper in XXXIX All India Conference on the Indian Botanical Society & National Symposium on the “New approaches and Recent challenges in Botany” on topic “Determination of Total phenolics and Flavonoids in various solvent extracts of *Schleichera oleosa* (Lour.) Oken” held at Department of Botany, Ranchi university, Ranchi, 21-23 October, 2017.

- Presented a paper in National Conference on Plant-our life, A medico-botanical view on topic “Phytochemistry and Pharmaceutical Properties of *Schleichera oleosa* (Lour.) Oken held at Department of Botany, Marwar Business School, Gorakhpur, 9-10 March, 2017.
- Presented a paper in National Conference on Challenges of Environmental Problems in 21st Century on topic “Nutritional quality and chemical composition of *Schleichera oleosa* (Lour.) Oken held at Department of Zoology, Marwar Business School, Gorakhpur, 26- 27 March, 2017.
- Presented a paper in International Conference on Green Chemistry and Environmental Health on topic “Natural Polymers and their applications in Nano drug delivery System” held at Department of Chemistry, Marwar Business School, 25-26 September, 2017.
- Presented a paper in National Conference on Diversity and Utilization of Tropical plants sponsored by UGC on topic “Antioxidant and free radical scavenging activity of stem bark of *Schleichera oleosa* (Lour.) Oken” held at Department of Botany, DDU Gorakhpur University, Gorakhpur, 22-23 February, 2018.
- Presented a paper in National seminar on plant viruses and researches in plant sciences on topic “Assessment of antioxidant potential of leaves of *Schleichera oleosa* (Lour.) Oken held at Department of Botany, DDU Gorakhpur, University, 1-2 November, 2018.
- Presented a paper in national seminar on biotechnological Interventions in Agriculture, Health and Industry on topic, “In-vitro antioxidant potential----- oken” organised by Department of Biotechnology, DDU Gorakhpur University, Gorakhpur, February 23&24, 2019.
- Presented a paper in National Conference on Emerging trend and advances in sustainable utilization and conservation of plants on topic, “Evaluation of DPPH free radical scavenging activity of stem bark of *Schleichera oleosa* (Lour.) Oken organised by Department of Botany, Marwar Business School, Feb 25-26, 2019.
- Presented a paper on topic, “Assessment of in-vitro antioxidant activity of ripe fruits of Ceylon oak” in two days online conference Himalayan Ecosystem: Threat, Resilience & Sustainable Management jointly organised by Government PG College Nagnath-Pokhari (Chamoli), Uttarakhand & Uttarakhand Science & Eduaction Research Centre (USERC), Dehradun, 26-27 February, 2024.
- Presented a paper on topic, “Applications of Phytonanotechnology in Environmental remediation” in National seminar on Environmental conservation & sustainable development (ECSO-2024) organised by Department of Zoology, DAV PG College, Dehradun in collaboration with USERC, Dehradun, ZSI Dehradun, 16 March, 2024.

PARTICIPATION IN TRAININGS/WORKSHOPS/NATIONAL SEMINARS/CBP/FDP

- Participated in **UGC Sponsored Short Term** course/workshop on SPSS held at DDU Gorakhpur University, Gorakhpur, 18 to 20 May, 2015.
- Participated in DBT sponsored one week **workshop** on “Molecular Cytogenetic techniques in Life Sciences” held at Department of Botany, St. Andrews College (P.G.), Gorakhpur, 12-18 March, 2016.
- Participated In **CSIR-CIMAP Training** school on Advanced Instrumentation and analytical techniques for natural products (AIAT-2016) held at CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow, 20-25 June, 2016.
- Participated in **National Workshop** on Scientific and effective communication, jointly organized by Department of Biotechnology, DDU Gorakhpur University, Gorakhpur and Biozone Research Foundation, Gorakhpur, 17-18 September, 2016.
- Participated in **National Seminar** on Recent trends in Microbiology organised by Department of Industrial Microbiology, DDU Gorakhpur University, Gorakhpur, 15 March, 2014.
- Attended **National Conference** on underutilized plants, food security and climate link jointly organised by Department of Botany and Society of underutilized plants for future research, 20-21 January, 2017.
- Attended **National Workshop** on Statistical Analysis of Biological Data (SABD-2017) organised by Department of Industrial Microbiology, DDU Gorakhpur University, Gorakhpur, 16-18 March, 2017.

- Attended **National Workshop** on “Intellectual Property Rights, Geographical indications and Innovation management organised by Department of Botany, DDU Gorakhpur University, 22-23 March, 2017.
- Attended **Short Term Training** course on “Molecular techniques in plant Sciences sponsored by DBT, New Delhi at St. Andrew’s College, Gorakhpur, 1-22 February, 2018.
- Participated in **National Workshop** on tools and techniques in life science organised by Department of Zoology, DDU Gorakhpur University, Gorakhpur, 25-26 March, 2019.
- Participated in **National Webinar** on Medicinal and Aromatic Plants for boosting Immunity in the era of Covid-19 organised by DDU Gorakhpur University, Gorakhpur, 29 May, 2020.
- Participated in **National Webinar** on Medicinal Plants & Community organised by Government PG College Nagnath-Pokhari (Chamoli), Uttarakhand, 08 June, 2020.
- Participated in Two-Day **Webinar** in “An insight into commercial applications of microorganisms in the current era”, organised by Department of Microbiology, Madras Christian College (Autonomous), 24-25 July, 2020.
- Participated in One day **National Workshop** on Intellectual Property Right jointly organised by Government PG College Nagnath-Pokhari (Chamoli), Uttarakhand & National Research Development Corporation, New Delhi, India, 21 July, 2020.
- Participated in Two-week **Capacity Building Program** in online mode on Academic Research Writing organised by Department of Tourism Management, Indira Gandhi National Tribal University, Amarkantak, M.P., 22nd April-03rd May, 2024.
- Participated in One-day **Workshop** on “Cell-Culture: An overview and application in Vaccine Industry, NextGen Life Sciences held online on 17 May, 2025.
- Participated in 2-week intensive **Training Program** on Whole Exome Sequencing Data Analysis and Clinical Variant Interpretation organised by Centre of Bioinformatics Research and Technology (CBIRT), New Delhi, 26th May-10th June, 2025.
- Participated in National **Faculty Development Programme (FDP)** on Research Structuring and Publication Process organised by Centre for Research & Training, National Foundation for Entrepreneurship Development (NFED), Coimbatore, Tamil Nadu, 23-27 June, 2025.
- Participated in One-day **Workshop** on “Computational ADMET, Pharmacokinetics and Toxicity Profiling, NextGen Life Sciences held online on 2nd August, 2025.

INSTRUMENTATION/TECHNIQUES ACQUIRED

- GC, GC-MS, HPLC, HPTLC, NMR, LC-MS, ICP & FT-NIR, UV-Vis Spectrophotometer.