Curriculum Vitae

Anubha Singh, Ph.D.
Assistant Professor, School of Biotechnology,
Gautam Buddha University, Greater Noida, U.P, India
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ACADEMIC PROFILE

Educational Qualification:

Ph.D. (2016-2022): Biotechnology, Amity University, Noida, India
Thesis-Antilithiatic Efficacy of Selected Medicinal Plants
MSc (2012-2014): Gold Medalist, Agriculture Biotechnology, SHUATS, Allahabad, India
BSc(H) (2008-2011): Botany, Delhi University, Delhi, India
Qualified for the National Eligibility Test (NET) through the Indian Council of Agricultural Research (ICAR NET- 2016), New Delhi, India.
GATE 2015-Qualified

Work Experience:

Assistant Professor (OCFD), Gautam Buddha University, Noida, India 2022 – present
Junior Research Fellow, National Research Centre on Plant Biotechnology,
IARI, New Delhi, India 2015 – 2016

Teaching Experience: (Subjects taught to M.Tech/M.Sc, B.Sc Biotechnology and B.Ed.)
1. Animal Biotechnology, 2. Cell Physiology, 3. Molecular Biology,
4. Human Physiology, 5. Biotechnology and Human Welfare, 6. Bioanalytical techniques,
7. Zoology (Animal Diversity, Invertebrate biology).

M.Tech/M.Sc Dissertation Supervision- Major-3, Minor-6

RESEARCH: Expertise in investigating the cytoprotective and nephroprotective potential of medicinal plants**,** with a focus on oxalate-induced oxidative stress. Current research interest lies in green chemistry and biomaterials, specializing in biogenic nanoparticle synthesis and animal tissue culture techniques to investigate the role of biogenic nanoparticles in various disease models**,** focusing on cellular responses, toxicity, and therapeutic potential as well as their role in drug delivery systems.

Ongoing Research Project: Effect of metal nanoparticles on hepatocellular carcinoma and renal cell carcinoma through Lenvatinib intervention: Strategies for targeted drug therapy **(CST-UP sponsored, 2024-2027).**

Professional Membership:
Member of American Chemical Society,
Member of Indian Society of Extracellular Vesicles,
Member of Society of Biological Chemists,
Member of Indian Society of Cell Biology

PUBLICATIONS:

1. Jyoti Upadhyay, **Anubha Singh.** Lignin derived Biofabrication of magnetic iron nanoparticles from *Moringa Oleifera.* **(2024).** Letters in Nanobiosciences. 2024, 13(3), 104, 1-12. Doi:10.33263/LIANBS120.000.
2. **Singh A,** Tandon S, Kumar D, Kaur T, Kesari KK, Tandon C. Insights into the cytoprotective potential of Bergenia ligulata against oxalate-induced oxidative stress and epithelial-mesenchymal transition (EMT) via TGFβ1/p38MAPK pathway in human renal epithelial cells. Urolithiasis. 2022 Jun;50(3):259-278. Doi: 10.1007/s00240-022-01315-4.

3. **Anubha Singh**, Simran Tandon, Tanzeer Kaur and Chanderdeep Tandon. *In vitro* studies on calcium oxalate induced apoptosis attenuated by *Didymocarpus pedicellata.* **Biointerface research in applied chemistry**. 12(6): **2022**, 7342 – 7355. https://doi.org/10.33263/BRIAC126.73427355.
4. **Anubha Singh**, Simran Tandon, Shoma Paul Nandi, Tanzeer Kaur and Chanderdeep Tandon. Downregulation of inflammatory mediators by ethanolic extract of *Bergenia ligulata (Wall.)* in oxalate injured renal epithelial cells. **Journal of Ethnopharmacology**. 275 (2021) 114104. https://doi.org/10.1016/j.jep.2021.114104.
5. **Anubha Singh**, Simran Tandon and Chanderdeep Tandon. An update on vascular calcification and potential therapeutics. **Molecular Biology Reports (2021)** 48:887–896. https://doi.org/10.1007/s11033-020-06086-y.
6. **Singh A**, Kumari K, Tandon S, Kaur T, Tandon C. Reno-protection by Didymocarpus pedicellata against oxalate-induced damage: mechanistic insights into mitigation of oxidative stress induced signaling pathways in renal cell line and rat model. Urolithiasis. 2025 Jun 30;53(1):131. https://doi.org/10.1007/s00240-025-01794-1

BOOK CHAPTERS:

1. Jai Prakash Muyal and Anubha Singh **(2024)**. Biomaterials and their applications in challenges to gene expression profiling analysis (Chapter 7). Advances in Academic Research and Development. Integrated Publications, 77-105. https://doi.org/10.62778/int.book.421.
2. Anubha Singh and Jyoti Upadhyay **(2024)**. Physiological and Toxicological Effects of Nano/Microplastics on Marine Birds (Chapter 11). Global Impacts of Micro- and Nano-Plastic Pollution. IGI Global publications. ISBN13: 9798369334478.

List of conferences and workshops:

1. International Workshop on "Manufacturing Technologies for Tissue Engineering and Drug Delivery Systems 2.0" 24th -28th March 2025 by Department of Biotechnology, Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India.
2. Workshop on "Decoding Transcriptomics: A comprehensive hands-on workshop on NGS tools and techniques" 4th -8th February 2025 by school of Biotechnology, Gautam Buddha University, UP, India.
3. Workshop on "Unveiling microbial drug resistance: Theory and Practical insights. 12th -13th March 2024, by SERB, Gautam Buddha University, UP, India.
4. Workshop on "Protecting neurodegeneration: Hands on Training on cell-based neurotoxicity analysis". 4th -5th April 2024, by SERB, Amity Centre for Nanomedicine, AUUP, India.
5. 1st International Workshop-cum-webinar on "CRISPR Genome Editing", 22nd – 26th July 2024 by Glostem private limited.
6. Workshop on "Nanoparticle Tracking Analysis for Extracellular Vesicles & Nanoparticles" 16th October 2024 by Indian Society for Extracellular Vesicles and nanoparticles" by Indian society for extracellular vesicles and stem cell facility, AIIMS, New Delhi.

Workshop/Conference/FDP organized:

1. One week faculty Development Program on "Hands-on Workshop in Bioprocessing & Biomanufacturing: From Fundamentals to Industry Applications", January 20th- 24th 2025, Gautam Buddha University, Greater Noida, in association with Association of Indian Universities and Academic and Administrative Development Centre- GBU, India.
2. International conference on "Structural Biology and Drug Discovery", October 11th – 12th 2023, Gautam Buddha University, Greater Noida, India.

Poster/Abstracts in different conferences:

1. Anubha Singh, Avisha Malik, Jyoti Upadhyay, Komal Bettan, Navin Kumar. "Characterization and Evaluation of Lenvatinib loaded PEG/PVA coated biogenic metal nanoparticles for drug delivery applications in HCC". #NanoSeries2025, 4th Annual Conference on Global Nanotechnology, Faculty of Medicine, University of Valencia, Spain. June 17-20, 2025.
2. Anubha Singh, Simran Tandon, Chanderdeep Tandon. "To investigate the antilithiatic efficacy of ethanolic extract of *Bergenia ligulata* on HK2 cells". 1st International Moleculer Medicine Conference "From Bench to Bedside and Beyond", Amity Institute of Integrative Sciences and Health Amity Institute of Biotechnology, Amity University, Haryana. 29-30/08/2019.
3. Anubha Singh, Simran Tandon, Chanderdeep Tandon. "Effect of aqueous extract of Bergenia ligulata on calcium oxalate crystallization". National Conference on Recent Advances in Biomedical Science: Diagnosis & Research. BIOMEDCON, India. 16/12/2016.