

Dr Nishi Kumari



Associate Professor in Botany

Mahila Mahavidyalaya

Banaras Hindu University

Ph.D (BHU)

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Academic Qualifications

S.No.	Degrees	Institution	Year
1.	Ph.D	Banaras Hindu University	1997
2.	M.Sc	Banaras Hindu University	1991
3.	B.Sc	Banaras Hindu University	1989

Areas of Specialization: Plant Morphogenesis (Development of regeneration protocol of some medicinally important trees, study of genetic fidelity of micropropagated plants by different molecular markers, short term and medium term conservation of micropropagated plants), Phytochemical screening and antimicrobial activities of both *in vivo* and *in vitro* plant extracts.

Details of Projects undertaken as PI:

S. No	Title of the Project	Funding Agency	Duration	Sanctioned Amount	Status
1.	Germplasm conservation of <i>Couroupita guianensis</i> and <i>Spondias mangifera</i> through tissue culture	UGC	July, 2012- Dec,2015	Rs 15.078 Lakh	Completed
2.	Micropropagation of a forest tree <i>Sterculia alata</i>	UGC	April, 2007- March,2009	Rs 0.60 Lakh	Completed

Awards & Fellowship

- UGC JRF – CSIR NET 1991
- GATE- 93.66 percentile (1991)
- Junior Research Fellow- JRF (CSIR Project)- October 10, 1991 to February 28, 1993
- JRF (UGC, Direct)- March 1, 1993 to March 31, 1994
- SRF(UGC)- April 1, 1994 to March 31, 1997
- RA (Direct, CSIR)- October 4, 1999 to September 30, 2000
- RA (Direct, CSIR)- January 1, 2002 to December 31, 2003

Research Guidance:

Ph. D awarded- 4

Ph.D registered-3

Administrative Experience:

Resident Warden, Jyoti Kunj Hostel, Mahila Mahavidyalaya, BHU – Four Years (May, 2004-May, 2008)

Teaching Experience

Undergraduate Teaching: January 3, 2004 onwards (More than fourteen years)

Postgraduate Teaching: Thirteen years

Publications

Research Papers

1. Tripathi M, **Kumari N**, Jaiswal VS, Jaiswal U & Singh M (2017) Somatic embryogenesis from immature zygotic embryos of *Sterculia alata* Roxb. and monitoring the ontogeny and the genetic fidelity of somatic embryos, International Journal of Plant Biotechnology, 3:53-67.
2. Mishra MK, Srivastava M, Singh G, Tiwari S, Niranjana A, **Kumari N** & Misra P (2017) Overexpression of *Withania somnifera* SGTL1 gene resists the interaction of fungus *Alternaria brassicicola* in *Arabidopsis thaliana*, Physiological and Molecular Plant Pathology, 97:11-19.
3. Singh R, Kumari N & Nath G (2016) Antimicrobial efficacy of callus and *in vitro* leaf extracts of *Sapindus mukorossi* Gaertn. against pathogenic microbes, Mathew Journal of Pharmaceutical Sciences, 1(2):1-4.
4. Singh R, **Kumari N** and Nath G (2016) Free radicals scavenging activity and antimicrobial potential of leaf and fruit extracts of *Sapindus mukorossi* Gaertn. against clinical pathogen. International Journal of Phytomedicine, 8: 22-28.

5. Singh R, Kashyap SP, **Kumari N** & Singh M (2016) Regeneration of soapnut tree through somatic embryogenesis and assessment of genetic fidelity through ISSR and RAPD markers, *Physiology and Molecular Biology of Plants*, 22: 381-389.
6. Mishra MK, Singh G, Tiwari S, Singh R, **Kumari N** & Misra P (2016) Characterization of Arabidopsis sterol glycosyltransferase TTG15/UGT80B1 role during freeze and heat stress. *Plant Signaling & Behavior*, DOI:10.1080/15592324.2015.1075682
7. Singh R, Rai MK and **Kumari N** (2015) Somatic embryogenesis and plant regeneration in *Sapindus mukorossi* Gaertn. from leaf derived callus induced with 6-benzylaminopurine, *Applied Biochemistry and Biotechnology*, 177:498-510.
8. Singh R, **Kumari N**, Gangwar M and Nath G (2015) Qualitative characterization of phytochemicals and in vitro antimicrobial evaluation of leaf extract of *Couroupita guianensis* Aubl.- a threatened medicinal tree, *International Journal of Pharmacy and Pharmaceutical Sciences*, 7(7):212-215.
9. Singh R and Kumari N (2015) Comparative determination of phytochemicals and antioxidant activity from leaf and fruit of *Sapindus mukorossi* Gaertn.- a valuable medicinal tree, *Industrial Crop and products* 73: 1-8.
10. Mishra MK, Chaturvedi P, Singh R, Singh G, Sharma LK, Pandey V, **Kumari N** and Misra P (2013) Overexpression of WsSGTL1 gene of *Withania somnifera* enhances salt tolerance, heat tolerance and cold acclimation ability in transgenic *Arabidopsis* plants, *Plos One*,8(4):1-16.
11. Rai NP, Rai GK, Kumar S, **Kumari N** and Singh M (2013) Shoot and fruit borer resistant transgenic eggplant (*Solanum melongena* L.) expressing cry1Aa3 gene: development and bioassay, *Crop Protection*,53: 37-45.
12. Tripathi M, **Kumari N**, Rai NP, Rai GK and Singh M (2012) Monitoring the genetic fidelity of micropropagated plantlets of *Spondias mangifera* Willd. using RAPD marker assays, *J. Hort. Sci. Biotech*, 87: 451-454.
13. Tripathi M and **Kumari N** (2010) Micropropagation of a tropical fruit tree *Spondias mangifera* Willd. through direct organogenesis,32: 1011-1015.
14. **Kumari N**, Jaiswal U and Jaiswal VS (1998) Induction of somatic embryogenesis and plant regeneration from leaf callus of *Terminalia arjuna* Bedd, *Current Science*, 75: 1052-1055.

Chapters in Books

1. Singh R, Jaiswal P, Yadav A & **Kumari N** (2015) Germplasm Conservation of Phytobiodiversity through plant biotechnology- a Review on Recent Progress and limitations, In: Pandey AK, Singh PK & Singh A (Eds) *Environment & Health Research*, Wisdom Books, pp.161- 179.

2. Tripathi M, Singh R, **Kumari N** & Singh M (2015) Short- term Conservation of *Spondias mangifera* Willd. through Seed Technology and Assessment of Clonal Fidelity after storage using RAPD analysis, In: Pandey AK, Singh PK & Singh A (Eds) Environment & Health Research, Wisdom Books, pp.195-208.
3. Kumari N (2012) Endosperm Tissue Culture: Technique and its potential application in Plant Improvement, In: Sharma HP, Dogra JVV, Misra AN (eds) Plant Tissue Culture: Totipotency to Transgenic, Agrobios, Jodhpur, India, pp 179-192.
4. **Kumari N**, Jaiswal U and Jaiswal VS (2009) Role of plant tissue culture in conservation of genetic resources. In: S Krishnan and DJ Bhat (eds.) Plant and Fungal Biodiversity and Bioprospecting, Broadway Book Centre, Goa, pp.8-18 (ISBN: 978-81-905716-0-9).
5. Babbar SB, **Kumari N** and Mishra JK (2004) In Vitro Androgenesis: Events preceding its cytological manifestation. In: Srivastava PS, Narula A and Srivastava S (eds) Plant Biotechnology and Molecular Markers, Anamaya Publishers, New Delhi, India/Kluwer Academic Publishers, Netherlands, pp. 1-17 (ISBN: 81-88342-19-X).
6. Akhtar N, **Kumari N**, Pandey S, Ara H, Singh M, Jaiswal U, Jaiswal VS and Jain SM (2000) Somatic embryogenesis in tropical fruit trees. In: SM Jain, PK Gupta and RJ Newton (eds) Somatic embryogenesis in woody plants, Vol.6., Kluwer Academic Publisher, Netherlands, pp. 93-140 (ISBN;0-7923-6419-8).

General Articles

1. **Kumari Nishi** (2002) Genomics: Packaging of Heredity Material in Prokaryotes-Bacterial Chromosomes; Plasmids and Eukaryote Chromosomes, Biology Today, February, 21-24.
2. **Kumari Nishi** (2002) Plant Taxonomy, Biology Today, May, 30-36.
3. **Kumari Nishi** (2002) Cell: The Unit of Life, Part 1, Biology Today, August, 37-40.
4. **Kumari Nishi** (2002) Cell: The Unit of Life, Part 2, Biology Today, September, 37-40.

Others

Member of Editorial Board of Mathew Journal of Pharmaceutical Sciences

“Laboratory manual for classification of Angiosperms” submitted to DBT Star College in 2015