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<p>Designation: Professor and Head Department of Botany, Siksha Bhavana</p>	
<p>Qualification: M.Sc. Ph.D</p>	
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<p>Teaching Experience: 25 years</p>	
<p>Research Experience: 32 years</p>	
<p>Research areas/Interest:</p> <ol style="list-style-type: none"> 1. Study of genetic diversity of economically important plants using karyomorphological, biochemical, phytochemical and molecular techniques. 2. <i>In vitro</i> propagation and conservation of rare and endangered tropical and temperate orchids. 3. Assessment of genetic fidelity of <i>in vitro</i> generated plants using molecular and biochemical markers. 4. Optimisation of <i>in vitro</i> production of important phytochemicals using biotechnological tools. 	

5. Utilisation of Synthetic seed technology for *in vitro* conservation of rare and endangered orchid germplasm.

Awards and Honours:

1. IBPGR -FAO Fellow: Katholic Univ. Leuven, Belgium,4 years (1982-86)
2. Visiting Scientist: Nottingham University, UK in 1985 (3 months)
3. University Gold Medal: University of Calcutta, 1978
4. A.K. Mitra Endowment Silver Medal: University of Calcutta, 1978

Sanctioned Project: (2008-2014)

1. *In vitro* propagation and conservation of some rare and endangered species of *Vanda* and assessment of their genetic fidelity through molecular techniques.” UGC, Rs. 10.00 lakhs, 2011- 2014
2. Assessment of genetic diversity at inter and intra specific levels of the genus *Dendrobium* (Orchidaceae) through micromorphological characters and molecular markers, CSIR, Rs. 16.00, 2007-2010
3. *In vitro* propagation and germplasm storage as efficient tools for conservation of endangered orchids, C.S.I.R., Rs. 12.50, 2004- 2008

Selected publications:

Chattopadhyay P. and **Banerjee N. (2015)** :In silico re-evaluation of DNA sequences for drawing phylogeny of orchids with special emphasis on *Dendrobium* Sw.

Biotechnological approaches for Sustainable Development., Regency Publication, Delhi, pp.55-82

Majumder M. and **Banerjee N. (2015)**: An Effective Nutritional requirements and an in vitro approach for asymbiotic seed germination and seedling growth of some terrestrial orchids. **Biotechnological approaches for Sustainable Development.**, Regency Publication, Delhi, pp.83-140

Chattopadhyay P. and **Banerjee N. (2014)**: Pollen of *Dendrobium*: The story they tell. **Lap Lambert Academic Publishing, Verlag Publisher, Germany**

Chaudhary B., Chattopadhyay P. and **Banerjee N. (2014)**: Modulations in seed micromorphology reveal signature of adaptive species-diversification in *Dendrobium* (Orchidaceae) **Open Journal of Ecology** Vol.4, No.2, 33-42 <http://dx.doi.org/10.4236/oje.2014.42005>

Pal P. K., Arefin M. B. and **Banerjee N. (2014)**: *In vitro* regeneration of *Hygrophila schulli* (Buch. Ham) M.R. & S.M. Almedia through callus mediated somatic embryogenesis. **International Journal of Current Research** 4 (6): 5997-6002. ISSN: 0975-833X.

Anjalika Maithy Roy, Soumi Ghosh, Anirban Paul, Tustu Mondal, Jaladhar Pal and **Nirmalya Banerjee (2014)**: Comparative study of cytotoxic effect by indofil, bavistin and bio fungicide on the seeds of Lentil (*Lens culinaris* M.), **International Journal of Current Research**, 6 (08): 7759-7762

Mondal, T., Aditya, S., and **Banerjee, N. (2013)**: *In vitro* Axillary Shoot Regeneration and Direct Protocorm-like Body Induction from Axenic Shoot Tips of *Doritis pulcherrima* Lindl. **Plant Tissue Culture & Biotechnology**. 23(2): 251-261. ISSN: 1817-3721.

Maithy-Roy, A., **Banerjee, N.** and Mandal, S. (2013): SEM studies of seed coat in mutants of *Catharanthus roseus* (L.) G.Don. **International Journal of Current Research**, 5 (2): 95-98

Maithy Roy A, **Banerjee N.**and. Mandal S (2013): Studies on alkaloid yield in mutants of *Catharanthus roseus* (L.) G.Don. through character correlation and path analysis. **Elixir Applied Botany**: 64 (2013): 19193-19198

Naha, S., Mondal, T., and **Banerjee, N. (2013):** Asymbiotic seed germination and seedling development of *Vanda testacea* (Lindl.) Reichb. f.: An *in vitro* approach for optimization of cultural requirements for a medicinally important rare orchid. **International Journal of Current Research**, 5(4): 1006-1011. ISSN: 0975-833X.

Chaudhary B, Chattopadhyay P, Verma R, **Banerjee N (2012)** Understanding the phylomorphological implications of pollinia from *Dendrobium* (Orchidaceae). **American Journal of Plant Sciences**. 3(6), 816-828. ISSN: 2158-2742.

Chattopadhyay P, **Banerjee N**, Chaudhary B (2012) Genetic characterization of selected medicinal *Dendrobium* (Orchidaceae) species using molecular markers. **Research Journal of Biology**. 2(4), 117-125. ISSN: 2049-1727

Banerjee, P. and **N. Banerjee (2011):** *In Vitro* Propagation of *Arachis hypogaea* L var. AK 1224: Direct and Indirect Plant Regeneration, **Plant Cell Biotechnology and Molecular Biology**, 12 (1-4): 57-62.

Jana,P, Rahaman, C.H. and **Banerjee, N. (2011):** High frequency plant regeneration through direct and indirect somatic embryogenesis in *Drimiopsis kirkii* Baker, **Columban J. Life Science**: 12(1&2): 1-8.

Pritam Chattopadhyay, **Nirmalya Banerjee**, Bhupendra Chaudhary (2010): Precise Seed Micromorphometric Markers as a Tool for Comparative Phylogeny of *Dendrobium* (Orchidaceae), **Floriculture and Ornamental Biotechnology**, 4 (Special Issue I); 36-44

Madhumita Majumder Sudhanshu S. Maiti and **Banerjee N. (2010):** Direct and Callus-mediated Protocorm-like Body Induction and High Frequency Adventitious Shoot Regeneration in an Endangered Orchid – *Dendrobium farmeri* Paxt. (Orchidaceae). **Floriculture and Ornamental Biotechnology**, 4 (Special Issue I): 22-28

Maithy Roy, A., **Banerjee,N.** and Mandal, S. (2009): Genetic variations in mutants of *Catharanthus roseus* (L) G. Don (Sadabahar). **Science and Culture**: 75 (9-10): 366-368.

Jana, P., Rahaman, C.H., and **Banerjee, N. (2009):** Occurrence of *Eleutherine bulbosa* (Miller) Urban (Iridaceae): A first report from eastern India. **Journal of Botanical Society of Bengal**: (in press)

Jana, P., Rahaman, C.H., and **Banerjee, N. (2009):** Pharmaco-anatomical and phytochemical studies of *Plumbago zeylanica* Linn. (Plumbaginaceae). **In: Advances in Plant Biology** (Ed. S.Mandal and S. Bhattacharya), Binapani Educational and Welfare Trust: pp: 318-336.

Maithy Roy, A., **Banerjee, N.** and Mandal, S. (2009): Study of M₁ and M₂ generation of *Catharanthus roseus* (L) G. Don. In: **Advances in Plant Biology** (Ed. S.Mandal and S. Bhattacharya), Binapani Educational and Welfare Trust: pp: 274-283.

Sinha, S., Guha, A., Sinha, B., Sinha, R.K. and **Banerjee, N.** (2007): Average packing ratio and evolution of sex chromosomes in dioecious *Coccinia indica* and *Trichosanthes dioica*, **Cytologia** 72(3): 369-372

Roy, J., Naha, S., Majumdar, M. and **Banerjee, N.** (2007): Direct and callus mediated protocorm-like body induction from shoot-tips of *Dendrobium chrysotoxum* Lindl. (Orchidaceae). **Plant Cell Tissue and Organ Culture**: 90: 31-39.

Banerjee, P., Maity, S., Maiti, S.S., **Banerjee, N.** (2007): Influence of genotype on in vitro multiplication potential of *Arachis hypogaea* L. **Acta Botanica Croatica**, 66 (1): 15-23.

Kundu, K., Mukherjee, A., **Banerjee, N.** and Sinhababu, S.P. (2007): Suppressive effects of α - amylase inhibitors from wheat flour on *Meloidogyne incognita* infestation in tomato and okra. **Allelopathy Journal**, 19 (2): 517-524.

Maithy Roy, A., **Banerjee, N.** and Mandal, S. (2007): Variations in leaf epidermal micromorphology and physiology in mutants of *Catharanthus roseus*. **Journal of Applied Bioscience**. 33 (1): 49-52.

Banerjee, A.K. and **Banerjee, N.** (2006): **Microbiology and Immunology**, New Central Book Agency, Kolkata.

Banerjee, N. (2006): Protoplast culture technology and its role in plant biotechnology. In: **Biodiversity and Biotechnology** (Eds. S.Ray and A.K.Ray), New Central Book Agency (P) Ltd, Calcutta.

Maity, S., Ray, S. and **Banerjee, N.** (2005): The role of plant growth regulators on direct and indirect plant regeneration from various organs of *Leucaena leucocephala*. **Acta Physiologiae Plantarum**, Vol.27 No. 4A: 473-480.

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Roy, J. and **Banerjee, N.** (2004): Effect of different media and organic supplements on *in vitro* seed germination and protocorm growth of *Arundina bambusifolia* Lindl.

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Roy, J. and **Banerjee, N. (2003)**: Induction of callus and plant regeneration from shoot tip explants of *Dendrobium fimbriatum* Lindl.var. *oculatum* Hk. f. *Scientia Horticulturae* 97 (3-4): 333-340 (Netherlands)

Ghosh, K.C. and **Banerjee, N. (2003)**: Influence of plant growth regulators on micropropagation of *Rauwolfia tetraphylla*. *Phytomorphology* 53(1): 11-19. (India)

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Banerjee, P., Ghosh, K.C., Sen, S.K. and **Banerjee, N. (2001)**: *In vitro* studies in *Arachis hypogaea* L. var JL-24. In: *Perspectives in Cytology and genetics*, Vol.10: 731-736. (India)

Ghosh, K.C., Bhattacharya, G.N., and **Banerjee, N. (2001)**: *In vitro* production of genetically stable clones of *Rauwolfia tetraphylla* L. through long-term culture. In: **Perspectives of Cytology and Genetics**, Vol.10: 725-729. (India)

Patents /Any other achievements: Nil

Laboratory members:

1. Jaladhar Pal: UGC-BSR Fellow
2. Tustu Mondal: UGC Research Fellow
3. Anirban Paul: Part time research fellow, Asst. Professor (Part time),
4. Sumana Aditya: UGC-BSR Fellow
5. Jeeta Sarkar: UGC-BSR Fellow