Faculty Details proforma for DU Web-site

Title	Dr.	First Name	Suman	Last Name	Lakhanpaul	Photograph
Designation		Professor				
Address		EG-119,UGF, Inder Puri, New Delhi-110012				
Phone No	Office					
	Residence	011-25833341				
	Mobile	9868375756				
Email		Sumanlp2001@yahoo.com				
Web-Page						

Educational Qualifications

Degree	Institution	Year
Ph.D.	Delhi University	1989
M.Phil. / M.Tech.	Delhi University	1983
PG	Delhi University	1981
UG	Delhi University	1979
Any other qualification		

Career Profile

Delhi University, Botany Department	Professor	2006-Till date	Teaching and Research
Delhi University, Botany Department	Reader	2002-2005	Teaching and research
NRC on DNA Fingerprinting, NBPGR, Pusa Campus, New Delhi-110012	Senior Scientist	1998-2002	Teaching and research
National Bureau of Plant Genetic Resources, Pusa Campus, New Delhi-110012	Scientist (Senior scale)	1992-1998	Research
National Bureau of Plant Genetic Resources, Pusa Campus, New Delhi-110012	Scientist S-1	1987-1992	Research

Administrative Assignments

Areas of Interest / Specialization

Plant molecular genetics, Crop Genetics, Molecular analysis of biological diversity, Multipartner (plant-insect-endosymbionts) interactions

Subjects Taught

Genetics, Molecular Genetics, Plant Anatomy, Genetics and Biotechnology of Crop plants, Biotechnology in management of Plant Genetic Resources

Research Guidance

List against each head (If applicable)

1. *Supervision of awarded Doctoral Thesis- 5*
2. *Supervision of Doctoral Thesis, under progress-5*
3. *Supervision of awarded M.Phil dissertations-7*
4. *Supervision of M.Phil dissertations, under progress-1*

Publications Profile

List against each head(If applicable) (as Illustrated with examples)

1. *Books/Monographs (Authored/Edited)*
2. *Research papers published in Refereed/Peer Reviewed Journals*

RESEARCH PAPERS PUBLISHED IN REFEREED/PEER REVIEWED JOURNALS

(Last five years)

1. Vashishtha,A., Jehan T. and Lakhanpaul, S. (2013) Genetic diversity and population structure of *Butea monosperma* (Lam.) Taub.-a potential medicinal legume tree. Physiol. Mol. Biol. Plants DOI 10. 1007/s/2298-013-0170

2. Kumar S., V. Singh, and S. Lakhanpaul (2012) A *candidatus* Phytoplasma asteris isolate associated with bud proliferation disease of cow pea in India. New Disease Reports 25. doi.org/10.5197/j.2044-

3. Bhardwaj D., Lakhanpaul, S. and Tuteja, N. (2012) A wide range of interacting partners of pea Gβ subunit suggests its multiple functions in cell signalling. Plant Physiology and Biochemistry 58:1-5.

4. Sandeep Kaushik, Anand Kumar Pushker, Suman Lakhanpaul, Kewal KrishanSharma, Rangnathan Ramani (2012) Investigations on some of the important host plants of *Kerria lacca* with reference to phloem distance. Eurasian Journal of Biosciences 6:32-38.

5. Ahmad, A., Kaushik S., Ramamurthy, V.V., Lakhanpaul, S., Ramani, R., Sharma,K.K. and Vidyarthy, A.S.(2012) Mouthparts and stylet penetration of the lac insect Kerria lacca(kerr.) (Hemiptera: Tachardiidae). Arthropd Structure and Development 41:435-

441.

6. Kumar S., V. Singh, and S. Lakhanpaul (2012) A '*Candidatus* Phytoplasma aurantifolia' strain associated with little leaf of *Mirabilis jalapa* and *Chrysanthemum* sp. Australasian Journal of Plant Pathology 7:71-73.

7. Kumar S., V. Singh, and S. Lakhanpaul (2012) First report of '*Candidatus* Phytoplasma asteris' associated with yellowing of *Barleria prionitis* in India. New disease reports (http://dx.doi.org/10.5197/j.2044-0588.2012.025.008).

8. Kumar S., V. Singh, and S. Lakhanpaul (2012) Detection and charactrization of a phytoplasma associated with witches'-broom disease of *Salvadora persica* in India. Journal of General Plant Pathology DOI:10.1007/s 10327-012-0381.

9. Kumar S., V. Singh, and S. Lakhanpaul (2011) Molecular evaluation and phylogeny of a phytoplasma associated with bunchy top disease in its new host Okra (*Abelmoschus esculentus*) in India reveals an evolving lineage within the 16SrI group. European Journal of Plant Pathology, DOI 10.1007/s10658-011-9910-3.

10. Vashishtha, A., Sharma, K.K. and Lakhanpaul, S. (2011) Co-existence, phylogeny and putative role of*Wolabchia* and yeast like Symbiont (YLS) in *Kerria lacca*. Current Microbiology 63 (2): 206-212.

11. Kumar S., V. Singh, and S. Lakhanpaul (2011) Co-occurence of phytoplasma and spiroplasma in sesame plants affected with yellowing disease. Phytopathogenic Mollicutes, 1, 47-49.

12. Pushker A.K., S.Kaushik, S.Lakhanpaul, K.K. Sharma, R. Ramani (2011). Preliminary phytochemical investigation on the bark of some of the important host plants of *Kerria lacca* –The Indian lac insect. Botany Research International 4(3); 48-51,2011.

13. Sharma, P., Nain V. Lakhanpaul,S. Kumar P.A. (2011). Binding of Bacillus thringiensisCry !A toxin with brush border membrane vesicles of maize stem borer(*Chilo partellus* Swinhoe). J. of Invertebrate Pathology 106(2): 333-335.

14. Sharma P., Nain V. ,Kumar P. A. Lakhanpaul, S (2010). Synergistic activity between *Bacillus thuringiensis* Cry1Ab and Cry1Ac toxins against maize stem borer (*Chilo partellus* Swinhoe). Letters in Applied Microbiology DOI 10.1111/i1472-765.

15. Kumar, S., Singh V., Lakhanpaul, S (2010). First report of *Crotolaria spectabilis* fasciation associated with *'Candidatus phytoplasma asteris'* in India. Plant Disease 94: 1265 (Cover article).

16. .Kumar S., Singh V., Lakhanpaul, S (2010). First report of '*Candidatus Phytoplasma asteris'* associated with green ear disease of bajra in India. Plant Pathology 22:27.

17. .Vir, R., Bhat K.V., Lakhanpaul, S. (2010). Genetic characterization and species relationships among selected Asiatic *Vigna* species. Genetic Resources and Crop Evolution DOI 10.1007/s10722.010. 9550z

18. Kumar, S., Singh V., Lakhanpaul, S (2010) Firt report of cotton and luffa little leaf associatedwith Candidatus Phytoplasma (16sR1) in India. Australasian J. Plant Pathology 5: 117-119.

19. Vir, R, K V Bhat, and Lakhanpaul,S. (2010) Genetic characterization and species relationship among selected Asiatic Vigna species. Genetic Resources and Crop Evolution 57: 1091-1107.

20. Vir, R, K V Bhat, and Lakhanpaul,S. (2009) Analysis of population substructure, genetic differentiation and phylogenetic relationships among selected Asiatic Vigna Savi species . *Genetic Resources and Crop Evolution* . 56(6): 78.

21. Vir, R, K V Bhat (2008) Transferability of sequence tagged microsatellite sites (STMS) primers to pulse yielding taxa belonging to Phaseolae . *International Journal of Integratve Biology*. 5: 62-66

22. Arya L.,Verma M.,Sandhia G. S., Singh S. K. and Lakhanpaul S.(2008) Pattern of genetic relationship as revealed by AFLP markers in Indian sorghum [*Sorghum bicolor* (L.) Moench]. The Indian J. Genetics Plant Breeding 68:139-144.

23. Sharma KK, Kumari Kavita, and Lakhanpaul, S. (2007) Host plant mediated variations in resin producing efficiency of Indian lac insect Kerria lacca (Kerr) (Homoptera: Cocoidea:Trachardiidae). Entomon 32 (3): 203-207.

24. Sharma KK, Kumari Kavita, and Lakhanpaul, S. (2007) Super-parasitism in Indian lac insect Kerria lacca (Kerr) and its implications on fecundity and resin producing efficiency on its two strains. Entomon 31 (1) 33-39.

OTHER PUBLICATIONS (EDITED WORKS/BOOKS REVIEWS/ VOLUMES ETC.)

1. Bhardwaj, D.. Lakhanpaul S. and Tuteja, N.2013 Can G- Proteins be the key proteins for overcoming environmental stresses and increasing crop yields in Plants? In: Tuteja, N. and S.S.Gill (EDS)Plant acclimation to environmental stresses XVIII. Spriger

2. **Lakhanpaul, S**. , Singh V., Kumar S. Bhardwaj, D. and Bhat K.V.2011"Incorporating abiotic stress resistance in Sesame- the Queen of oilseed crops" In **Improving Crop Resistance to Abiotic stress-Omics Approaches**. (Ed.Tuteja et al .) WILEY-VCH verlag , Germany.

3. Khanna, Ruchi Vir, Bhat, K.V., **Lakhanpaul, S**. and Bhat K.V. 2008 Molecular genetic differentiation and relationships among selected Asiatic Vigna species. In. Food Legumes for Nutritional Security and Sustainable Agriculture (ed.) M.C. Kharagwal. Proccedings of the Fourth International Food Legume Research Conference (IFLRC-IV) held at New

Delhi, India, October 18-22, 2005.pp 604-616.

4. Duhoon SS, SM Sharma, K V Bhat . 2004. Niger. In *Plant Genetic Resources: Oilseed and Cash Crops*, eds Dhillon, RK Tyagi, S Saxena, A Agrawal. New Delhi: Narosa publ. house.
5. Duhoon SS, SM Sharma, K V Bhat. 2004. Sesame. In *Plant Genetic Resources: Oilseed and Cash Crops*, ed. BS Dhillon, RK Tyagi, S Saxena, A Agrawal. Delhi: Narosa Pub. House.
6. Karihaloo J L, S Archak. and Lakhanpaul S.2002. Use of molecular markers in assessing genetic diversity of tropical fruit speciesNew Delhi, India. In *vitro Conserved and Cryopreservation of Tropical Fruit Species*, ed. R Chaudhury, R Pandey, S K Malik and Bhag Mal, 237-246.Rome, Italy: International Plant Genetic Resources Institute Office for South Asia..
7. Lakhanpaul, Suman. 2003. Random amplified polymorphic DNA analysis. In *vitro Conserved and Cryopreservation of Tropical Fruit Species* , ed. R Chaudhury, R Pandey , S K Malik and Bhag Mal. Rome, Itlay: International Plant Genetic Resources Institute Office for South Asia.
8. Karihaloo, J.L., Bhat K.V., Lakhanpaul, S. Mohapatra, T. and Randhawa, J.G. 2001 Molecular characterization of germplasm In: Dhillon, B.S., Varaprasad, K.S, Srinivasan K.,Singh M., Archak, S., Srivastava, U. and Sharma, G.D. National Burea of Plant Genetic Resources: A compendium of achievements. NBPGR, New Delhi.

Research papers Published in Conferences/Seminar other than Refereed/Peer Reviewed Conference

s Vir Khanna R, Lakhanpaul S, Bisht IS, Bhat KV (2005) Study of molecular differentiation and relationships among selected Asiatic Vigna species. Oral presentation at 4th International Food Legumes Research Conference, October 18-22, 2005. The Indian Society of Genetics and Plant Breeding, Indian Agricultural Research Institute, New Delhi. Pp.93.

Vashishtha A., Sharma K.K. and Lakhanpaul S. (2006) Evidence of endosymbiont in Kerria lacca: A third partner in lac production at the 5th International Symbiosis Society (ISS) Congress held at Vienna, Austria during August 4-10, 2006.

Khanna Vir R., Lakhanpaul S., and Bhat K. V. (2006) "Utility of psbA-trnH_{GUG} intergenic spacer region of Cp DNA for phylogenetic studies in sub genus Ceratotropis of genus Vigna (Savi)." in sixth International Conference of Taxonomists at ARI, Pune.

Jehan, T., Lakhanpaul, S. and Yadav, S.R. (2006) A reinvestigation of taxonomy of tribe Scillae in India using RAPD markers: In XVI Annual Conference of Indian Association for Angiosperm Taxonomy and International Seminar on Present Trends and Future Prospects of Angiosperm Taxonomy, Pune, India.

Vashishtha A., Sharma K.K., H.M. Chawla and Lakhanpaul S. (2007) 'Occurrence, molecular diversity and putative role of Wolbachia in lac insect (Kerria lacca)' presented at "Evolution 2007" held at Christchurch, Convention Centre, New Zealand during June 16-20, 2007.

Verma N., Singh V, Pushker A.K., Mandal N., Bhat K.V. and Lakhanpaul, S. (2009) Evaluation and variation in antioxidant potential of sesame (Sesamum. indicum L.) cultivars and the wild allies of genus Sesamum presented in Sixth Indo-Italian Workshop on Biology and Chemistry of antioxidants held at Department of Chemistry, Delhi University held during December 10-11, 2009.

Vashishtha A., and Lakhanpaul S. (2010) Coexistence of Wolbachia and yeast –like –symbionts (YLS) and their putative role in Kerria lacca (Kerr) presented at Sixth international Wolbachia conference"Wolbachia On The Bay" Asilomar, California USA held during June 9-14, 2010.

Kaushik S., Pushkar K., Vashistha A., Ramani R., and Lakhanpaul, S. (2010) Molecular detection and characterization of multiple endosymbionts in economically important lac insect [Kerria lacca (Kerr)] strains of Indian subcontinent presented at Sixth international Wolbachia conference"Wolbachia On The Bay" Asilomar, California USA held during June 9-14, 2010.

Bhardwaj, D.. Tuteja, N. and Lakhanpaul, S. 2012 Wide range of interacting partners of Pisum sativum Gbeta subunit suggests its significant multirole in signal transduction pathway. Presented at International Conference on Plant Biotechnology for Food Security: New Frontiers held at New Delhi, India during February 21-24th, 2012.

Singh, V., Kumar, S. and Lakhnapul, S. 2012 New hosts of plant pathogenic phytoplasma: Emerging trends in the current climate change. Presented at International Conference on Plant Biotechnology for Food Security: New Frontiers held at New Delhi, India during February 21-24th, 2012.

1. *Other publications (Edited works, Book reviews, Festschrift volumes, etc.)*

Conference Organization/ Presentations (in the last three years)

List against each head(If applicable)

1. *Organization of a Conference*
2. *Participation as Paper/Poster Presenter*

Research Projects (Major Grants/Research Collaboration)

Biochemical and molecular characterization of the Lac insect host relationship	DBT,GOI	2003-2007
Program support on Restoration Ecology	DBT,GOI	2005-2010
To understand the nature of diversity in lac insects of Kerria spp. in India and the nature of insect X host interaction	World Bank through National Agricultural Innovative Project (ICAR)	2009-ongoing

The relationship of Phytoplasma with its host plants and insect vectors	National Fund for Basic, strategic and Frontier application Research in Agriculture	2013-2016

Awards and Distinctions

Awarded NSTS (National Science Talent Search Scholar) Fellowship and availed the fellowship for the entire education period i.e. upto Ph.D.

Secured 1st Position in college in B.Sc.

Secured 2nd position at All India level in ARS (Agricultural Research Services) Examination (1985) held by UPSC (Union Public Service Commission), Govt . of India in the specialization Genetics and Cytogenetics.

Judged as Excellent Teacher and nominated for the Award of Best Teacher in IARI, (Deemed University)

Signature of Faculty Member