




Faculty Details proforma for DU Web-site

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Title	Professor	First Name	Shailendra	Last Name	Goel	Photograph
Designation	Professor					
Address	Department of Botany University of Delhi Delhi – 110007.					
Phone No Office	011-27662609					
Residence						
Mobile						
Email	shailendragoel@yahoo.com					
Web-Page						
Educational Qualifications						
Degree	Institution				Year	
B.Sc.	Meerut University			1990	Subjects: Zoology, Botany, Chemistry	
M.Sc.	Meerut University			1992	Subjects: Botany	
Ph.D.	University of Delhi			1999	Thesis topic: rDNA sequence evolution and molecular phylogeny of <i>Vigna</i> and <i>Phaseolus</i>	
Career Profile						
Organisation / Institution		Designation		Duration		Role
University of Georgia, USA		Postdoctoral research associate		June 2000-Oct 2005		Research
Institut pour la recherche & Developpement (IRD), France		Postdoctoral research associate		Nov 2005-June 2007		Research
North Eastern Hill University (NEHU), India		Reader		June 2007-October 2007		Research and Postgraduate teaching
University of Delhi		Reader		Oct 2007- Oct 2010		Research and Postgraduate teaching
University of Delhi		Associate Professor		Oct 2010 – October 2013		Research and Postgraduate teaching
University of Delhi		Professor		October 2013-till now		Research and Postgraduate teaching
Administrative Assignments						
<ol style="list-style-type: none"> 1. VC Nominee DRC (Departmental Research Council), Department of Microbiology, University of Delhi. (2015-2018) 2. Member, BOS (Board of studies), NIPGR (National Institute for Plant Genome Research), Delhi 3. Member, BOS (Board of studies), Jamia Millia Islamia, Delhi 4. Store In-charge, Department of Botany, University of Delhi (2017-2020) 5. Member; Committee of Courses and Studies for Honors, Post-Graduate and Research Studies in Botany, University of Delhi (August 2009-2011). 6. Member; Purchase Committee for up-gradation of teaching infrastructure and instrumentation 						

facilities at the Department of Botany, University of Delhi (2008 – 2020).

7. In charge; Radioactive room facility (2011-Onwards)
8. Departmental webpage committee (2011-2020)
9. Departmental purchase Committee (2014-2021)
10. Member courses of committee (2015-onwards)
11. Member, Departmental Repair and Maintenance committee, Departmental Central Instrumentation facilities committee, Bioinformatic Facility Committee (2021-onwards).
12. Member Board of Studies, Sikkim University.
13. Member, Academic Council, JNU
14. Member, Board of Studies, Department of Biotechnology, Delhi Technical University.
15. Member, Board of Studies, Department of Botany, North Eastern Hill University.
16. Co-ordinator, IQAC, Delhi University.

Areas of Interest / Specialization

Genomics, genome organization, Molecular Genetics, Molecular markers application. I am particularly interested in Apomixis and its developmental aspects. I am also trying to develop major research program on Safflower improvement. I believe in interdisciplinary work and collaborations are the best way to achieve this goal. I see myself working in collaborations with different people working on different aspects of plant research in future.

Subjects Taught

M.Sc. – Semester system (2009 onwards):

- Genetics and Cytogenetics (Core Program) (2009-2019)
- Genetics, Genomics and Molecular Breeding (Optional Program) (2020-Onward)
- Advanced Genetics and Plant Breeding (Optional Program) (2009-2019)
- Evolutionary Biology (Optional Program) 2019.
- Evolutionary Biology (Core Program) (2020 onwards)

M.Phil.

- Topics in molecular biology and genetics

Ph.D.

- Genetic markers and mapping (EL06)

Research Guidance

List against each head (If applicable)

- | | | |
|---|---|-------------|
| 1. Supervision of awarded Doctoral Thesis | : | 6 (awarded) |
| 2. Supervision of Doctoral Thesis, under progress | : | 6 |
| 3. Supervision of awarded M.Phil dissertations | : | 1 |
| 4. Supervision of M.Phil dissertations, under progress: | : | nil |

Publications Profile

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

Books/Monographs (Authored/Edited)

1. Ozias-Akins P, J.A. Conner, **S. Goel**, Z. Chen, Y. Akiyama, W.W. Hanna .2003. Genomic structure of the apomixis locus in Pennisetum. In IK Vasil, ed, Plant Biotechnology 2002 and Beyond. Proceedings of International Association for Plant Tissue Culture and Biotechnology, pp 515-518
2. Ozias-Akins P., J.A. Conner, **S. Goel**, Y. Akiyama, W.W. Hanna. 2007. Chapter 6. Genes linked with apomixis: identification and characterization. In E Hoerandl, PJV Dijk, U Grossniklaus, T Sharbel, eds, Apomixis: Evolution, Mechanisms and Perspectives (Regnum Vegetabile) Lubrecht & Cramer Ltd pp 117-124

3. **Goel S.**, H.D. Singh and S.N. Raina. 2009. *Cenchrus* : a potential forage crop. Springer WCR (Wild Crop Relatives) Series Volume 2. Wild Relatives of Millets and Forage Grasses. Kole, Chittaranjan (Ed.), Springer, Germany. **(Corresponding Author)**
4. Bali S. **S. Goel** and S.N. Raina. 2016. Technological Advances in Studying Gene Pool Diversity and Its Exploitation. In: Molecular Breeding for Sustainable Crop Improvement, pp.149-169. V.R. Rajpal, S. Rama Rao and S.N. Raina (eds.). Springer, Germany. **(Corresponding Author)**
5. Mangla Y., Manisha, R. Tandon and **S Goel**. 2020. Dynamics of Eco-Evolutionary Forces in Shaping Dioecy. Rajesh Tandon et al. (Eds): Reproductive Ecology of Flowering Plants: Patterns and Processes. **(Corresponding Author)**

Research papers published in Refereed/Peer Reviewed Journals

6. Identification and validation of in silico mined polymorphic EST-SSR for genetic diversity and cross-species transferability studies in Safflower. 2021. Krishna Nand Singh, Seema Parveen, Pooja Kaushik, Shailendra Goel, Arun Jagannath, Kuldeep Kumar, Manu Agarwal. **Journal of Plant Biochemistry and Biotechnology. 1-10. (IF 0.78)**
7. Applicability of Start Codon Targeted (SCoT) and Inter Simple Sequence Repeat (ISSR) markers in assessing genetic diversity in *Crepidium acuminatum* (D. Don) Szlach. 2021. Julie Thakur, Mayank D Dwivedi, Neeraja Singh, Prem L Uniyal, Shailendra Goel, Arun K Pandey. **Journal of Applied Research on Medicinal and Aromatic Plants. 23, 100310. (IF 1.8)**
8. Abiotic stress-mediated modulation of the chromatin landscape in *Arabidopsis thaliana*. 2020. Vivek Kumar Raxwal, Sourav Ghosh, Somya Singh, Surekha Katiyar-Agarwal, Shailendra Goel, Arun Jagannath, Amar Kumar, Vinod Scaria, Manu Agarwal. **Journal of Experimental Botany 71 (17), 5280-5293. (IF 5.9)**
9. Prediction of upslope movement of *Rhododendron arboreum* in Western Himalaya 2020. SNS Veera, RM Panda, MD Behera, **S Goel**, PS Roy, SK Barik. **Tropical Ecology, 1-7 (IF 0.5)**
10. DR Wahlang, JM Lamo, S Goel, SR Rao. 2019. Karyo-morphological consistency and heterochromatin distribution pattern in diploid and colchitetraploids of *Vigna radiata* and *V. mungo*. **Meta Gene 21, 100569. (IF. 1.12)**
11. N.K. Chrungoo, R. J. Devi, **S. Goel**, K. Das. 2019. Deciphering species relationships and evolution in *Chenopodium* through sequence variations in nuclear internal transcribed spacer region and amplified fragment-length polymorphism in nuclear DNA. **Journal of Genetics 98(2): 37. (IF 1.15)**

12. R. Chongtham, S. Waikhom, A. Kumar, **S. Goel**, M. Agarwal, A. Jagannath, 2017. Evaluation of Different Hosts and Laboratory Conditions for Rearing of the Mustard Aphid (*Lipaphis Erysimi*) and their Use for Screening of Aphid-Resistant Transgenic Plants of the Oilseed Crop, *Brassica juncea* (Indian Mustard)". **Vegetos** - An International Journal of Plant Research, 30 (special):185-190.
13. T.H. Dar, S.N. Raina, **S. Goel**. 2017. Cytogenetic and molecular evidences revealing genomic changes after autopolyploidization: a case study of synthetic autotetraploid *Phlox drummondii* hook, **Physiology and Molecular Biology of Plants**. 23(3):641-650. (IF 1.15)
14. B. Kukreja, G. Joshi, E. Sharma, R. Kapoor, **S. Goel**, A. Jagannath, A. Kumar, M. Agarwal. 2018. Standardization of Hydroponics based procedure for High-Throughput Screening and its Application for identification of differential host response in Safflower against *Fusarium oxysporum carthamii*. **Vegetos**-An International Journal of Plant Research 31(2):5-11.
15. D.R. Wahlang, W. Suchiang, **S. Goel**, S.R. Rao. 2019. Analysis of genetic variation using ISSR and the development of SCAR marker in synthetic autotetraploids of *Vigna mungo* (L.) Hepper, **Vegetos** :1-10
16. D.R. Wahlang, J.M. Lamo, **S. Goel**, S. R. Rao. 2019. Karyo-morphological consistency and heterochromatin distribution pattern in diploid and colchitetraploids of *Vigna radiata* and *V. mungo*, **Meta Gene** :100569
17. Y. Mangla, K. Das, S. Bali, H. Ambreen, S. N. Raina, R. Tandon, **S. Goel**. Occurrence of subdioecy and degeneration of sequence at gender-specific locus in Himalayan seabuckthorn (*Hippophae rhamnoides* ssp. *turkestanica*). 2018. **Heredity**. 122 : 120–132 (Corresponding author) (IF 3.8)
18. H. Ambreen, S. Kumar, A. Kumar, M. Agarwal, A. Jagannath, **S. Goel**. 2018. Association mapping for important agronomic traits in safflower (*Carthamus tinctorius* L.) core collection using microsatellite markers. **Frontiers in Plant Sciences** 9:1, doi.org/10.3389/fpls.2018.00402. (Joint Corresponding author) (IF 4.3)
19. A. Sahu, P.K. Jha, A. Prabhakar, H.D. Singh, N. Gupta, T. Chatterjee, T. Tyagi, S. Sharma, B. Kumari, S. Singh, V. Nair, **S. Goel**, M. Z. Ashraf. 2017. MicroRNA-145 Impedes Thrombus Formation via Targeting Tissue Factor in Venous Thrombosis. **EBioMedicine**. 26:175 – 186. (IF ; 6.18)
20. P. Kaur, N. Shukla, G. Joshi, C. V. Kumar, A. Jagannath, M. Agarwal, **S. Goel**, A. Kumar. 2017. Genome-wide identification and characterization of miRNAome from tomato (*Solanum lycopersicum*) roots and root-knot nematode (*Meloidogyne incognita*) during susceptible interaction. **PLOS One** 12(4):e0175178. doi: 10.1371/journal.pone.0175178 (IF 2.8)
21. N. Shukla, R. Yadav, P. Kaur, S. Rasmussen, **S. Goel**, M. Agarwal, A. Jagannath, R. Gupta, A. Kumar. 2017. Transcriptome analysis of root-knot nematode (*Meloidogyne incognita*)-infected tomato (*Solanum lycopersicum*)

roots reveals complex gene expression profiles and metabolic networks of both host and nematode during susceptible and resistance responses. **Mol Plant Pathol.** doi: 10.1111/mpp.12547 (IF 4.7)

22. S. Kumar, H. Ambreen, M. T. Variath, A. R. Rao, M. Agarwal, A. Kumar, **S. Goel** and A. Jagannath. 2016. Utilization of molecular, phenotypic, and geographical diversity to develop compact composite core collection in the oilseed crop, safflower (*Carthamus tinctorius* L.) through maximization strategy. **Frontiers in Plant Sciences 7: 1 (Joint Corresponding author) (IF 4.3)**
23. K. Das, S. H. Ganie, Y. Mangla, Tanvir. H. Dar, M. Chaudhary, R. K. Thakur, R. Tandon, S. N. Raina and **S. Goel**. 2017. ISSR markers for gender identification and genetic diagnosis of *Hippophae rhamnoides* ssp. *turkestanica* growing at high altitudes in Ladakh region (Jammu and Kashmir). **Protoplasma.** 254:1063–1077 (**Corresponding author) (IF 2.9)**
24. V. Patial, R. Krishna, G. Arya, V. K. Singh, M. Agarwal, **S. Goel**, A. Jagannath and A. Kumar. 2016. Development of an efficient, genotype independent plant regeneration and transformation protocol using cotyledonary nodes in safflower (*Carthamus tinctorius* L.). **J. Plant Biochem. Biotechnol.** 25 (4): 421-432. (**IF 1.0**)
25. H. Ambreen, S. Kumar, T. V. Murali, G. Joshi, S. Bali, M. Agarwal, A. Kumar, A. Jagannath and **S. Goel**. 2015. Development of a novel set of genomic microsatellite markers in *Carthamus tinctorius* L. using next generation sequencing and assessment of their utility for diversity analysis and cross species transferability. **PLoS ONE 10(8): e0135443 (#Joint Corresponding author) (IF 2.9)**
26. S. Sinha, V. K. Raxwal, B. Joshi, A. Jagannath, S. Katiyar-Agarwal, **S. Goel**, Amar Kumar and Manu Agarwal. *De novo* transcriptome profiling of cold-stressed siliques during pod filling stages in Indian mustard (*Brassica juncea* L.). 2015. **Front. Plant Sci.** 6:1. (**IF 4.3**)
27. A. M. Devi, **S. Goel**, A. K. Misra. 2015. Generation of silver stained TE-AFLP markers in tea (*Camellia sinensis*) and their assessment in filling gaps with construction of a genetic linkage map. **Scientia Horticulturae 192: 293. (IF 1.6)**
28. Sapinder Bali, A. Mangain, S. N. Raina, S. K. Yadava, V. Bhat, S. Das, A. K. Pradhan, **S. Goel**. 2015. Construction of a genetic linkage map and mapping of drought tolerance trait in Indian beverage tea. **Molecular Breeding 35:112. (Corresponding Author) (IF 2.5)**
29. Bhardwaj AR, G. Joshi, B. Kukreja, V. Malik, P. Arora, R. Pandey, RN. Shukla, K.G. Bankar, S. Katiyar-Agarwal, **S. Goel**, A. Jagannath, A. Kumar, M. Agarwal. 2015. Global insights into high temperature and drought stress regulated genes by RNA-Seq in economically important oilseed crop *Brassica juncea*. **BMC Plant Biol.15 (1): 9. (IF 4.0)**
30. Y. Mangla, M. Chaudhary, H. Gupta, R. Thakur, **S. Goel**, S. N. Raina, R.

Tandon. 2015. Facultative apomixis and development of fruit in a deciduous shrub with medicinal and nutritional uses, **AoB PLANTS**, Volume 7 (1) plv098. (IF 2.2)

31. S. Kumar, H. Ambreen, T. V. Murali, S. Bali, M. Agarwal, A. Kumar, **S. Goel**[#] and A. Jagannath[#]. 2014. Assessment of genetic diversity and population structure in a global reference collection of 531 accessions of *Carthamus tinctorius* L. using AFLP markers. **Plant Molecular Biology Reporter**. **33:1299** DOI: 10.1007/s11105-014-0828-8 (**#Joint Corresponding author**). (IF 1.9)
32. Mehrotra S., **S. Goel**, S. N. Raina and V. R. Rajpal 2014. Significance of Satellite DNA Revealed by Conservation of a Widespread Repeat DNA Sequence Among Angiosperms. **Applied Biochemistry and Biotechnology** 173(7):1790-801 (**Corresponding author**). (IF 1.4)
33. Ankur R Bhardwaj, Gopal Joshi, Ritu Pandey, Bharti Kukreja, **Shailendra Goel**, Arun Jagannath, Amar Kumar, Surekha Katiyar-Agarwal, Manu Agarwal. 2014. A Genome-Wide Perspective of miRNAome in Response to High Temperature, Salinity and Drought Stresses in *Brassica juncea* (Czern) L. **PLoS ONE**: 9(3): e92456. (IF 2.9)
34. Lakhotia N, G. Joshi, A.R. Bhardwaj, S. Katiyar-Agarwal, M. Agarwal, A. Jagannath, **S. Goel**, A. Kumar 2014. Identification and characterization of miRNAome in root, stem, leaf and tuber developmental stages of potato (*Solanum tuberosum* L.) by high-throughput sequencing. **BMC Plant Biology** **14:6**. (IF 4.0)
35. Sapinder Bali, Soom Nath Raina, Vishnu Bhat, Ramesh Kumar Agarwal, **S. Goel**. 2013. Development of a set of genomic microsatellite markers (gssrs) in tea (*Camellia* L.) (*Camelliaceae*). **Molecular Breeding** **32(3): 735-741**. (**Corresponding Author**). (IF 2.5)
36. Tanvir H. Dar, Soom N. Raina and **S. Goel**. 2013. Molecular Analysis of Genomic Changes in Synthetic Autotetraploid *Phlox drummondii* Hook. **Biological Journal of Linnean Society** Volume 110, Issue 3, pages 591–605, (DOI: 10.1111/bij.12154) (**Corresponding author**). (IF 2.3)
37. Y. Mangla, R. Tandon, **S. Goel** and S.N. Raina. 2013. Structural organization of the gynoecium and pollen tube path in Himalayan sea buckthorn, *Hippophae rhamnoides* (Elaeagnaceae). **AOB Plants** **5: plt015**. (IF 2.2)
38. Mehrotra S., **Goel S.**, S. Sharma, S. N. Raina and V. R. Rajpal. 2013. Sequence Analysis of KpnI Repeat Sequences to Revisit the Phylogeny of the Genus *Carthamus* L. **Applied Biochemistry and Biotechnology** **69:1109–1125** (**Corresponding author**). (IF 1.4)
39. S. N. Raina, P. S. Ahuja, R. K. Sharma, S. C. Das, P. Bhardwaj, R. Negi, S. S. Singh, R. K. Sud, R. K. Kalia, V. Pandey, J. Banik, V. Razdan, D. Sehgal, T. H. Dar, A. Kumar, S. Bali, V. Bhat, S. Sharma, B. M. Prasanna, **S. Goel**, M. S. Negi, P. Vijayan, S. B. Tripathi, B. Bera, A. K. A. Mandal, R. R. Kumar, D. Vijayan, S. Ramkumar, B. R. Chowdhury, S. S. Mandi. 2011. Genetic structure and diversity of India hybrid tea. **Genetic Resources and Crop Evolution** **59 (7): 1527-1541**. (IF 1.3)

40. **Goel S.***, Akiyama, Y.*, J. A. Conner, W. W. Hanna, H. Yamada-Akiyama and P. Ozias-Akins. 2011. Evolution of the apomixis transmitting chromosome in *Pennisetum*. **BMC Evolutionary Biology** **11:289** (*Shared First Author). (IF 3.4)
41. Singh M, **S. Goel**, R.B. Meeley, C. Dantec, H. Parrinello, C. Michaud, O. Leblanc and D. Grimanelli. 2011. Production of viable gametes without meiosis in maize deficient for an ARGONAUTE protein. **The Plant Cell**. 23: 443-458. (IF 8.5)
42. Conner JA, **S. Goel**, G. Gunawan, M.M. Cordonnier-Pratt, V. E. Johnson, C. Liang, H. Wang, L. H. Pratt, J. E. Mullet, J. DeBarry, L. Yang, J. L. Bennetzen, P. E. Klein, and Peggy Ozias-Akins. 2008. Sequence Analysis of Bacterial Artificial Chromosome Clones from the Apospory-Specific Genomic Region of *Pennisetum* and *Cenchrus*. **Plant Physiology**. 147: 1396-1411. (IF 6.2)
43. **Goel S.**, Y. Akiyama, Z Chen, W. W. Hanna and P Ozias-Akins 2006. *Pennisetum squamulatum*: is the predominant cytotype hexaploid or octaploid? **Journal of Heredity** 97(5):521-524. (IF 2.43)
44. **Goel S.**, Z. Chen, Y. Akiyama, J.A. Conner, M. Basu, G. Gualtieri, W.W. Hanna and Ozias-Akins P. 2006. Comparative physical mapping of the apospory-specific genomic region in two apomictic grasses: *Pennisetum squamulatum* and *Cenchrus ciliaris*. **Genetics** 173: 389-400. (IF 5.9)
45. Akiyama, Y., J.A. Conner, **S. Goel**, D.T. Morishige, J.E. Mullet, W.W. Hanna, and P. Ozias-Akins. 2004. High-resolution physical mapping in *Pennisetum squamulatum* reveals extensive chromosomal heteromorphism of the genomic region associated with apomixis. **Plant Physiol**. 134:1733-1741. (IF 6.2)
46. **Goel, S.***, Z. Chen*, J.A. Conner, Y. Akiyama, W.W. Hanna, and P. Ozias-Akins. 2003. Delineation by fluorescence *in situ* hybridization of a single hemizygous chromosomal region associated with aposporous embryo sac formation in *Pennisetum squamulatum* and *Cenchrus ciliaris*. **Genetics** 163:1069-1082. (*Shared First Author) (IF 5.9)
47. **Goel, S.**, S.N. Raina and Y. Ogihara. 2002. Molecular evolution and phylogenetic implications of internal transcribed spacer sequences of nuclear ribosomal DNA in *Phaseolus-Vigna* complex. **Molecular Phylogenetics and Evolution** 22(1): 1-19. (IF 4.4)
48. Raina, S.N., Y. Mukai, K. Kawagauchi, **S. Goel**, A. Jain. 2001. Physical mapping of 18S-5.8S-26S and 5S ribosomal gene families in three important vetches (*Vicia* species) and their allied taxa constituting three species complexes. **Theor. Appl. Gene.**103:839-845. (IF 4.1)
49. Rani, V., K.P. Singh, B. Shiran, S. Nandy, **S. Goel**, R. Devarumath, H.L. Sreenath and S.N. Raina. 2000. Evidence for new nuclear and mitochondrial genome organisations among high frequency somatic embryogenesis-derived-plants of allotetraploid *Coffea arabica* L. (Rubiaceae). **Plant Cell Reports** 19:1013-1020. (IF 3.0)

50. Rout, G.R., P. Das, **S. Goel** and S.N. Raina. 1998. Determination of genetic stability of micro propagated plants of ginger using Random Amplified Polymorphic DNA (RAPD) markers. **Bot. Bulletin Academia Sinica** 39:23-27. (Now named as Botanical Studies). **(IF 1.4)**

Research papers published in Academic Journals other than Refereed/Peer Reviewed Journals

Nil

Research papers published in Refereed/Peer Reviewed Conferences

51. A. Vijay, P. K Jha, S. Parveen, **S. Goel**, A. Prabhakar, B. Kumar, T. Chatterjee, N. Bajaj, V. Nair, M. Sharma, M. Z Ashraf. 2019. Aberrant Promoter Hypermethylation Mediated Regulation of Thrombomodulin Gene in High Altitude Induced Deep Vein Thrombosis. **Circulation** 140 (Suppl_1), **A10076-A10076**.
52. Monika*, Singh D. Heisnam, Anuja Jain, Priyanka Mohapatra, Gopal Joshi, Annu Aparajita, Manu Agarwal, Arun Jagannath, Shailendra Goel (2017). Molecular understanding of Apomixis and role of small RNA based Regulatory pathways in Apomictic addition line of *Pennisetum glaucum* L.: XXVII annual conference of Indian association for angiosperm taxonomy & international symposium on plant systematics
53. Monika*, Priyanka Mohapatra, Gopal Joshi, Manu Agarwal, Arun Jagannath, Heisnam Dinesh Singh and Shailendra Goel (2018) Molecular understanding of Apomixis and role of miRNA based Regulatory pathways in Apomictic addition line of *Pennisetum glaucum* L.: **4th international Plant Physiology Congress**.
54. P. Seema, A. Heena, K. Suman, A. Manu, J. Arun and G. Shailendra, Exploring genetic diversity and the presence of genomic imprinting in *Nymphaea* L., 133-34 (November 2017). Poster presentation at the International conference on XXVII **Annual Conference of Indian Association for Angiosperm Taxonomy & International Symposium on Plant Systematics**, India.
55. Priyanka Mohapatra, Dinesh H. Singh, Gayatri Mishra, Rohit N. Shukla, Manu Agarwal, Arun Jagannath, Amar Kumar, Peggy Ozias-Akins, Wayne W. Hanna and **S. Goel**. "Understanding developmental aspects of apomixis through small RNA profiling, degradome and cell specific marker in sexual and addition lines in *Pennisetum glaucum*". **20th ADNAT Convention international symposium** on "Genome Editing Technologies and their application in biology, medicine and agriculture organised by KIIT university on 16-18 February 2017.
56. Priyanka Mohapatra, Dinesh H. Singh, Monika sharma, Manu Agarwal, Arun Jagannath, Amar Kumar, Peggy Ozias-Akins, Wayne W. Hanna and **S. Goel**. 2017 "Elucidation of developmental aspects of apomixis through cell specific molecular markers in sexual and addition lines of *Pennisetum glaucum*." **2nd International conference on Technological Advancement for Sustainable Agriculture and Rural development** (TASARD-India.2017) organised by Society for plant research (VEGETOS) and African-Asian Rural Development Organisation (AARDO) on 20-22 February 2017.
57. K. Das, S.H. Gannie, Y. Mangla, R. Tandon, S.N. Raina, **S. Goel** Identification

- of Male specific marker in *Hippophae rhamnoides* by ISSR based SCAR marker. Advancing Frontiers in Biotechnology for Sustainable Agriculture and Health (AFBSAH-2-16)” during 25-26th February, 2016 at Allahabad.
58. Vivek Kumar Raxwal, Sourav Ghosh, **Shailendra Goel**, Arun Jagannath, Amar Kumar, Vinod Scaria and Manu Agarwal. **2014**. Landscape of open chromatin during abiotic stress in Arabidopsis. Abstract: p 112. **International Symposium on Plant Signaling & Behavior**, March 7 – 10, 2014 Department of Botany, University of Delhi, Delhi – 110007.
 59. Shukla N, Chauhan R, Kaur P, Joshi G, Katiyar-Agarwal S, Agarwal M, Arun Jagannath, **Goel S**, Shankar R and Kumar A. **2014**. Transcriptome profiling of roots of susceptible and resistant tomato cultivar at various stages of infection with root knot nematode (*Meloidogyne incognita*). Abstract: p 82. **International Symposium on Plant Signaling & Behavior**, March 7 – 10, 2014 Department of Botany, University of Delhi, Delhi – 110007.
 60. Kaur P, Cheeni V, Joshi G, Heisnam d, Katiyar-Agarwal S, Agarwal M, Arun Jagannath, **Goel S** and Kumar A. **2014**. Identification and characterization of miRNAome of tomato roots infected with root knot nematode (*Meloidogyne incognita*). Abstract: p 73. **International Symposium on Plant Signaling & Behavior**, March 7 – 10, 2014 Department of Botany, University of Delhi, Delhi – 110007.
 61. Shivendra Kumar, Heena Ambreen, T. V. Murali, Sapinder Bali, Manu Agarwal, Amar Kumar, **Shailendra Goel*** and Arun Jagannath*. **2013**. Analysis of genetic diversity in a representative global collection of *Carthamus tinctorius* L. using AFLP. Abstract: p 255 (*: Co-Corresponding Authors). **International Conference on Plant Biotechnology, Molecular Medicine and Human Health and 7th Annual Convention of ABAP**, October 18-20, 2013 University of Delhi South Campus, New Delhi – 110021.
 62. Heena Ambreen, Shivendra Kumar, T.V. Murali, Gopal Joshi, Sapinder Bali, Manu Agarwal, Amar Kumar, Arun Jagannath* and **Shailendra Goel***. **2013**. Isolation and characterization of microsatellites from the oilseed crop, *Carthamus tinctorius* L. using next generation sequencing. Abstract: As Addendum (*: Co-Corresponding Authors). **Won the Best Poster Award. International Conference on Plant Biotechnology, Molecular Medicine and Human Health and 7th Annual Convention of ABAP, October 18-20, 2013 University of Delhi South Campus, New Delhi – 110021.**
 63. Sonia Waikhom, Jyotsna Singh, Bharat Joshi, Rubina Chongtham, Manu Agarwal, **Shailendra Goel**, Amar Kumar, A.K. Singh and Arun Jagannath*. **2013**. Development of transgenic plants using lectin genes from onion and garlic for introduction of aphid resistance in the oilseed crop, *Brassica juncea* (Indian mustard). Abstract: p 243 (*: Corresponding Author). **International Conference on Plant Biotechnology, Molecular Medicine and Human Health and 7th Annual Convention of ABAP**, October 18-20, 2013 University of Delhi South Campus, New Delhi – 110021.
 64. Vandna Patial, T.V. Murali, Arun Jagannath, **Shailendra Goel**, Manu Agarwal and Amar Kumar*. **2013**. Genetic transformation and improvement of oil quality in Safflower (*Carthamus tinctorius*). Abstract: p 175. **International Conference on Plant Biotechnology, Molecular Medicine and Human Health and 7th Annual Convention of ABAP**, October 18-20, 2013 University of Delhi South Campus, New Delhi – 110021.
 65. Ankur R. Bhardwaj, Rohit Nandan Shukla, Kiran Bankar, Arun Jagannath,

- Shailendra Goel**, Surekha Katiyar-Agarwal, Amar Kumar and Manu Agarwal. **2013**. Transcriptome profiling and identification of regulatory genes under high temperature stress in the oilseed crop, *Brassica juncea* (Indian mustard). Abstract: p29. **International Conference on Plant Biotechnology, Molecular Medicine and Human Health and 7th Annual Convention of ABAP**, October 18-20, 2013 University of Delhi South Campus, New Delhi – 110021.
66. H. Dinesh Singh, Gopal Joshi, Ankur R. Bhardwaj, Manu Agarwal, Surekha Katiyar-Agarwal, Arun Jagannath, Amar Kumar, Peggy Ozias-Akins, Wayne W. Hanna and **Shailendra Goel**. **2013**. Comparative small RNA analysis at different developmental stages of embryo sac in sexual and apomictic addition lines of *Pennisetum glaucum*. Abstract: p150. **International Conference on Plant Biotechnology, Molecular Medicine and Human Health and 7th Annual Convention of ABAP**, October 18-20, 2013 University of Delhi South Campus, New Delhi – 110021.
67. Somya Sinha, Vivek Kumar Raxwal, Arun Jagannath, Amar Kumar, **Shailendra Goel** and Manu Agarwal. **2013**. Synthetic microRNA mediated silencing of negative regulators to enhance frost tolerance in *Brassica juncea*. Abstract: p256. **International Conference on Plant Biotechnology, Molecular Medicine and Human Health and 7th Annual Convention of ABAP**, October 18-20, 2013 University of Delhi South Campus, New Delhi – 110021.
68. Vivek Kumar Raxwal, Sourav Ghosh, Somya Sinha, Rajsekhar R. Reddy, Surekha Katiyar-Agarwal, **Shailendra Goel**, Arun Jagannath, Amar Kumar, Vinod Scaria and Manu Agarwal. **2013**. Ultra high resolution mapping of HSF A5 binding reveals new insights into HSR regulation. Abstract: p267. **International Conference on Plant Biotechnology, Molecular Medicine and Human Health and 7th Annual Convention of ABAP**, October 18-20, 2013 University of Delhi South Campus, New Delhi – 110021.
69. Heisnam D. Singh, Gopal Joshi, Ankur R. Bhardwaj, Surekha Katiyar-Agarwal, Manu Agarwal, Arun Jagannath, Peggy Ozias-Akins, Wayne W. Hanna, **Shailendra Goel**. 2012. Profiling of smRNAs unique to apomictic addition lines in *Pennisetum glaucum*. International Plant and Animal Genome Conference XX, 14-18 January, San Diego, CA, USA.
70. Akiyama Y, **Goel S**, Conner JA, Hanna WW, Yamada-Akiyama H, Ozias-Akins P (2012) The evolution of the apospory-specific genomic region (ASGR) - carrier chromosome in *Pennisetum*. Breeding Science 14 Ex. issue 1, P.258. in Utsunomiya, Japan (Poster)
71. Mipeshwaree Devi Asem, **Shailendra Goel** and Arvind K. Misra. 2011. Generation of silver stained TE-AFLP markers and assessment of primer combinations in tea for efficient fingerprinting analysis. International Conference on New Horizons in Biotechnology (NHBT-2011), NIIST, Trivandrum, November 21-24.
72. S. Bali, S. N. Raina, V. Bhat, **S. Goel**, R. K. Aggarwal. 2011. Isolation of microsatellites from tea (*Camellia sinensis* L.) kuntze using enrichment protocol. 11th ADNAT conference, CCMB, Hyderabad, India
73. Kamal Das, T. H. Dar, S. Bali, G. Joshi, R. Tandon and **S. Goel**. 2011. Isolation of sex specific DNA marker by Representational Difference Analysis (RDA). National conference on seabuckthorn, NCBST, IARI, Delhi, India
74. Tanvir H. Dar, **S. Goel**, S.N. Raina 2011. Genomic changes in synthetic autotetraploid in *Phlox drummondii* Hook. 11th ADNAT conference, CCMB, Hyderabad, India

75. Ozias-Akins P., J.A. Conner, **S. Goel**, Y. Akiyama , M.M. Cordonnier-Pratt , C. Liang , L. H. Pratt, W. W. Hanna 2005. Physical and functional characteristics of the genomic region associated with apomixis in *Pennisetum*. Plant and Animal Genome XIII Conference, San Diego, California, USA.
76. Raina S.N., **S. Goel**. 2004. Qualitative and Quantitative Monitoring of Gene expression patterns among micro propagated plants of tea Clones by differential screening of randomly amplified cDNAs using RAPD Primers. World Congress on In Vitro Biology (Society for in vitro biology). San Francisco, California, USA
77. Conner J.A., **S. Goel**, G. Gunawan, M.M. Cordonnier-Pratt, C. Liang, W. Haiming, L Pratt, J.E. Mullet, W.W. Hanna and P. Ozias-Akins 2004. Aligning physical and functional maps of a genomic region spanning the apomixis locus by exploiting model cereal genomics. Plant Biology conference, Orlando, Florida, USA
78. **Goel S.**, J.A. Conner, Y. Akiyama, W.W. Hanna, and P. Ozias-Akins. 2004. Integrating genetic and physical maps: an approach to define the size of apospory specific genomic region in *Pennisitum* and *Cenchrus*. Plant and Animal Genome XII Conference, San Diego, California, USA.
79. Ozias-Akins P., **S. Goel**, A. Yukio, G. Gualtieri, J.A. Conner, J.E. Mullet, W.W. Hanna. 2003. Characterization of the genomic region transmitting apomixis in *Pennisetum* and *Cenchrus*. Plant and Animal Genome XI Conference, San Diego, California, USA.
80. Ozias-Akins P., W.W. Hanna, Z. Chen, J.A. Conner, **S. Goel**, Y. Akiyama. 2002. Molecular cytogenetic characterization of Apomictic Introgression lines of Millet. ASA-CSSA-SSSA Annual Meetings.
81. **Goel S.**, J.A. Conner, Y. Akiyama, W.W. Hanna, and Ozias-Akins P 2002. Physical localization of the apospory specific genomic region in *Pennisetum squamulatum* and *Cenchrus ciliaris*. (Poster) Plant and Animal Genome X Conference, San Diego, California, USA.
82. Ozias-Akins P., J.A. Conner, **S. Goel**, Z. Chen, Y. Akiyama and W.W. Hanna.2002. Architecture of the apomixes locus in *Pennisitum/Cenchrus*. (Abstract) Plant and Animal Genome X Conference, San Diego, California, USA.
83. Ozias-Akins P., D. Roche, J.A. Conner, Z. Chen, **S. Goel** and W.W. Hanna 2001. (Abstract) Comparative physical mapping of the apospory locus in two grass species. International Apomixes Conference, Italy.
84. Ozias-Akins P, D. Roche, J.A. Conner, Z. Chen, **S. Goel** and W.W. Hanna 2001. Apomixes in *Pennisetum*. (Abstract) Plant and Animal Genome IX Conference, San Diego, California, USA.
85. **Goel S** and S.N. Raina 1999. Nucleotide sequences of 18S-25S spacer regions: A valuable source of evidence of molecular evolution. (Abstract) (Lead lecture) National Seminar on Plant Genetic Diversity: Evaluation and Conservation, Chandigarh, India.

Invited Lecture

1. M. Sharma, P. Mohapatra, Dinesh H. Singh, R. Shukla, A. Jagannath, M. Agarwal, A. Kumar, **S. Goel**. 2021. Understanding the role of conserved and novel miRNA in regulation of apomixis in *Pennisetum glaucum* (L.) R. Br. 42nd Annual meeting of plant tissue culture association (india) and International symposium on advances in plant biotechnology and genome editing-2021 (apbge-2021). (Invited Keynote lecture)

2. M. Sharma, P. Mohapatra, Dinesh H. Singh, R. Shukla, A. Jagannath, M. Agarwal, A. Kumar, **S. Goel**. Exploring the role of miRNA in the Expression and regulation of apomixis in *Pennisetum*. VII Rajasthan Science Congress, Udaipur October 2019 (Invited Keynote Lecture)
3. **Goel S.** P. Mohapatra, M. Sharma, D. Singh, M. Agarwal, A. Jagannath, A. Kumar. Investigating the role of miRNAs in regulation of Apomixis in *Pennisetum glaucum* L. ICTPA, IIT Guwahati, India. Feb 14-16, 2019. (Invited Lecture)
4. **Goel S.** Genetic and genomic approaches for improvement of Safflower (*Carthamus tinctorius* L.), an under-utilized promising oilseed crop of India. 2nd National Seminar on Current Trends In Life Sciences, Amity Institute of Biotechnology, Amity University Madhya Pradesh, Gwalior 27 February 2019. (Invited Talk)
5. **Goel S.**, R. Tandon, Y. Mangla, K. Das and S.N. Raina: DNA based gender markers for sustainable utilization of Seabuckthorn (*Hippophae rhamnoides* L. ssp *turkestanica*), a promising future crop. National conference on Emerging Environmental Challenges and Sustainable Development. Organised by "Society for Environment and Development". 21-23 March 2018 (Plenary Lecture)
6. **Goel. S.** Recent advances in sequencing and genomics. Faculty Development Program on Research Methodology and Pedagogy in Universities. 6-12 June, 2018 Amity Institute of Biotechnology, Amity University Madhya Pradesh, Gwalior (Key Note Lecture)
7. **Goel S**, Priyanka Mohapatra, Sapinder Bali and Dinesh Singh. Deciphering the control of apomixis in *Pennisetum*. XXIII International Grassland Congress November 20-24, 2015, Delhi NCR, India. (Key Note Speaker).
8. **Goel S.**, Ram Krishna, A. Kumar, A. Jagannath, M. Agarwal Designer biodiesel in *Jatropha curcas*. October 12-13, 2014. *Jatropha Updates*, Organiser: teri, India Habitat Centre, Delhi, India.
9. **Goel S.** and I. Siddiqi. Apomixis: Current Status and Future Prospects. International Dialogue on Designer Rice for Future: Perception and Prospects. July 9-10, 2012, organiser: Society for advancement of rice research. ICRISAT, Patancheru, AP, India.

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

Nil

Patents

Nil

Conference Organization/ Presentations (in the last three years)

List against each head (If applicable)

Chaired sessions

Co-chaired a session at Annual meeting of plant tissue culture association (india) and International symposium on advances in plant biotechnology and genome editing-2021

1. Organization of a Conference : nil
2. Participation as Paper/Poster Presenter : 7

Research Projects (Major Grants/Research Collaboration)

1. Project Coordinator in DST-PURSE grant on “Genetic and Genomic approaches for improvement of the oilseed crop, *Carthamus tinctorius* (Safflower)”. (Completed September 2013)
2. PI in DRDO funded project “Towards the Biodiesel in *Jatropha curcas*” (completed on June 2011)
3. PI in DBT funded project “Profiling of small RNAs unique to Apomictic addition lines in *Pennisetum glaucum* through Subtractive small RNA library” (Completed on Feb 2014)
4. Co-PI DBT funded project “Molecular markers and descriptor development in Tea” (Completed Mar 2009)
5. PI in DBT funded project “Isolation of sex linked genes and gender specific markers in *Hippophae rhamnoids*” (Completed on Dec 2012)
6. PI in UGC funded project “Improvement of *Jatropha curcas* biodiesel stability through transgenic approach” (Completed)
7. PI in DBT funded project “Whole genome and transcriptome changes as a consequence of allo and auto polyploidy in *Vigna L.*”(Completed)
8. PI in DBT funded project “Whole genome and transcriptome changes as a consequence of allo and auto polyploidy in *Vigna L.*: Phase II” (Ongoing)
9. Co-PI in DBT funded project “Exploration of genome-wide polymorphism, imprintomes and methylomes to unfold the genetic, epigenetic and evolutionary mysteries of basal angiosperms with emphasis on *Nymphaea L.*” (Ongoing)
- 10.PI in SERB-DST funded project “Development of SNP markers and association mapping for agronomic traits on a core collection of the oilseed crop, *Carthamus tinctorius* (Safflower).” (Ongoing)
- 11.PI in DBT funded project “A biotechnological approach to elucidate adaptation mechanism, migration pattern and reproductive biology of indicator temperate alpine plants in Himalayas in response to changing climate.” (Ongoing)
- 12.Co-PI in DBT funded project “ Exploiting genetic diversity for for improvement of safflower through genomics assisted discovery of QTLs/Genes associated with Agronomic traits” (Ongoing)

Awards and Distinctions

1. University Grant Commission (India) National Research Fellowship holder 1993-1998
2. GATE (conducted by India Institute of Technology or IIT, India) Qualified (12th National Rank) 1993
3. Visiting Research Fellowship, Kihara Institute for Biological Research, Yokohama City University, Japan

Association With Professional Bodies

1. *Editing*
2. *Reviewing*

**Projects: DBT (Department of Biotechnology), Govt of India.
DST (Department of Science), Govt of India.
BARD - Binational Agricultural Research and Development Fund
US-Israel**

Journals: Plant Molecular Biology Reports (International society of plant molecular biologist/ ISPMB)

Journal of Horticulture and Forestry (Academic Journals)

Plant Cell Reports (Springer)

Iranian Journal of Biotechnology

Indian Journal of Biotechnology

BMC Genetics

BMC Genomics

BMC Research Note

Euphytica

Comparative Cytogenetics

Journal of Biotechnology

Plant Molecular Biology Reports

The Plant Genome

PLOS One

Annals of Botany

Journal of Genetics

Physiology and Molecular Biology of Plants

Heredity

3. *Advisory*

- **Advisory board member of Amity Journal of Advanced Research in Biotechnology and Nanobiotechnology.**

4. *Committees and Boards*

- **VC Nominee DRC (Departmental Research Council), Department of Microbiology, University of Delhi. (2015-2018)**
- **Member, BOS (Board of studies), NIPGR (National Institute for Plant Genome Research), Delhi (Since 2018)**
- **Member, National Tea Research Foundation (NTRF), Tea Board, Calcutta (2017-2019)**
- **Member, BOS (Board of studies), Jamia Millia Islamia, Delhi. (Since 2018)**
- **Member, Board of Studies, Department of Biotechnology, Delhi Technical University. (Since 2019)**
- **Member, Academic Council, JNU (Since 2019)**
- **Member, BOS, Sikkim University. (Since 2020)**
- **Co-coordinator IQAC, University of Delhi (Since 2020)**
- **Member, Committee to develop ICT policy and guidelines. (Since 2021)**

5. *Memberships*

<ul style="list-style-type: none"> • Life Member, International Society of Plant Morphologists, Department of Botany, University of Delhi, Delhi – 110007. • Life Member, ADNAT (Association for the promotion of DNA finger printing and associated DNA technologies), Hyderabad. • Life Member, Society for Translational Research • Elected Member, The Linnean Society of London <p>6. <i>Office Bearer</i></p> <ul style="list-style-type: none"> • Executive council Member, ADNAT (association for the promotion of DNA fingerprinting and other DNA technologies) • Academic editor on PLOS ONE
Other Activities
<p>Two summer trainees for 2012-2013 One trainee for 2013-2014 One trainee for 2015-2016 One Trainee for 2016-2017 Two Summer Trainees 2018 One summer trainee for 2019 One Summer trainee for 2020</p>

Signature of Faculty Member

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.