

## RESUME

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### Qualifications

S.No	Degree	University	Year
1.	Ph.D (Biotechnology)	GJUS&T, Hisar	2005
2.	M.Sc (Biotechnology)	CCSHAU, Hisar	1998

### Experience : Teaching and Research more than 19 years

- Senior Research Fellow from June- 1998to Jan 2002 in CCSHAU Hisar
- Research Associate from Feb 2002 to Nov 2005 in CCSHAU Hisar

Assistant Professor, in UIET, Kurukshetra University, Kurukshetra Haryana, Since July 2006 till date

### Research Guidance

1. Ph.D : Completed 5
2. M.Tech: Completed 17

### Publications:

1. Bharat Singh, Raman Yadav, Harvinder Singh and **Anita Punia** Studies on Effect of PCR-RAPD Conditions for Molecular marker analysis in Asparagus (Satawari)and AloeVera, medicinalplant. 4(12): 6570-6574,2010. Australian Journal of Basic and Applied Science.
2. **Anita Punia**, Pooja Arora, Rakesh Yadav, and Ashok Chaudhury Optimization and Inference of PCR conditions for Genetic Variability studies of commercially important Cluster bean varieties by RAPD analysis. 17 ( 2): 27-32. 2009 Asia Pacific J. Mol. Bio and Biotechnology.
3. **Anita Punia**, Pooja Arora, Rakesh Yadav, and Ashok Chaudhury Molecular and Morphophysiological Characterization of superior Cluster bean (Cyamopsis tetragonoloba) varieties. 12(3): 143-148. 2009 Journal of Crop Science and Biotechnology.
4. Anita R sehrawat, S. Uppal and **Anita Punia**.Effect of plant growth regulators on relative growth rate, multiple shoot formation and alkaloid accumulation in catharanthus roseus (L) G. Don. 62(1):

61-64.2002 Indian Journal of Genetic and Plant breeding. Impact: 7 NAAS : 6.6

5. Dinesh Banal, Pragya hasin , **Anita Grewal**.Antimicrobial activities of different extracts of *Tinospora cordifolia* on streptococcus mutans and staphylococcus aureus. 6(5):815-817. April 2011 International Journal of Applied Engineering Research.

6. Sharma M, Rathi M, Gaur N, **Grewal A** and Malik DK. Decolorization of the chlorophenol red (dye) by isolate *Aspergillus* strain from textile industrialwaste soil. 4(3)353-3552013. Asian journal of experimental biological Science.

7 Anuja Rangi, Sunita Khatak and **Anita Punia**. Studies on Sequence Homology in Promoter Region for Abiotic Stress Responsive Genes in Arabidopsis Thaliana. 8 (6): 632-636,2012 World Journal of Agricultural Sciences

8.Suman Rani, Amandeep, Rakesh Kumar, **Anita Grewal**. Agro- morphological and RAPD marker based characterization of genetic diversity in different genotypes of *withania somnifera* L. 3(4), Oct 1-16. 2013 International Journal of Bio-Technology and Research Impact: 2.65

10. **Anita Grewal**, Archit Sharma, Sunita Khatak, Surinder K Pahuja.2013 DNA extraction optimization in Sorghum for marker analysis. 2(6): 5046-51.2013 World Journal of Pharmacy and Pharmaceutical Sciences Impact :2.7

11. Dinesh Bansal , Pragya Bhasin , O.P. Yadav , **Anita Punia**. Assessment of genetic diversity in *Lepidium Sativum* a medicinal herb used in folklore remedies in India using using RAPD. 10: 39-45. 2012. Journal Genetic Engineering and Biotechnology

12 .Suman, Dinesh Bansal , Pragya Bhasin , O.P. Yadav , **Anita Punia** An assessment of genetic fidelity in *Lepidium sativum* regenerants using RAPD markers. 20(1) 341-347. Journal Ecology Environment and conservation 2014NAAS 5.6

13. Neetu Singh, Rajesh Kumar, Sunita Khatak, Deepak Kumar and **Anita Grewal**. Morphological, Physiological and Biochemical Characterization of Bacteria Isolated from Pine apple Juice. 4(4), 651-653. 2013 Asian J. Exptl. Biol

14. Kanika , Sunita Khatak, Santosh Dhillon, O.P. Yadav, **Anita Grewal**.Genetic Variability Analysis Using ISSR Markers in *Withania Somnifera* L. from Different Regions. 19: 22-32. 2013 Journal of Herbs, Spices & Medicinal Plants Impact 0.44

15. Ravisha Archit, **Anita Grewal** Optimisation of DNA extraction for molecular marker studies in Rose an ornamental plant. 2(4): 14-16. 2013 Indian Journal of Research. Impact : 0.32

- 16.. Kumar S, Saini J, Kashyap D, Batra B, **Grewal A**, Malik DK and Kumar R Green synthesis of plant-mediated silver nanoparticles using *mangifera indica* and *syzygium cumini* leaf extract. 4(8): 3189-3191. 2013. International Journal of Pharmaceutical Sci and Research Impact: 2.4
17. Dinesh Banal, Pragya hasin , **Anita Grewal** Antimicrobial activities of *Lepidium sativum*: Medicinal plant used in folklore remedies in India. 5(3): 1643-1645. 2012 Journal of pharmacy Research. Impact :2.6
18. Dinesh Banal, Pragya hasin , **Anita Grewal**.Antimicrobial, Phytochemical and Antioxidant assay of Bauhenia Variegata extracts against some pathogenic microbes. 7 (4) :212-216. Nov 2012 Research Journal of Biotechnology Impact : 0.3
19. Dinesh Banal, Pragya hasin , **Anita Grewal** In Vitro Antioxidant Activity and Phytochemical Analysis of seed extracts of *Lepidium sativum*- a medicinal herb. 2 (6), 410- 415. 2011 J Biosci Tech
- 20.. Dinesh Bansal, Pragya Bhasin, Anita R Sehrawat and **Anita Punia** Evaluation of antimicrobial activity and phytochemical screening of extracts of Tinospora cordifolia against some pathogenic microbes. 5(1): 127-129. 2012 Journal of Pharmacy Research.Impact factor : 2.6
- 21.J.V Singh, Ashok Chaudhary, **Anita Punia** Standardisation of DNA isolation protocol in Guar (Cyamopsis tetragonoloba) for molecular marker analysis. 30(1):59.2004 Forage Research. NAAS : 4.4
22. Sehrawat A, Kumar R, Sehrawat K and **Anita Punia**. In vitro culture and multiplication of Rauwolfia serpentina A threatened medicinal plant. 22(1): 68-71. 2001 Journal of Crop Research. NAAS: 4.6
23. J.V Singh, Subhash Chander, P.P Gupta,Ashok Chaudhary, **Anita Punia** Studies on Variability, Heritability and genetic advance in Clusterbean (Cyamopsis tetragonoloba). 17(2): 177-178. 2001 Annals of Biology. NAAS : 3.8
24. **Anita Punia**, , R.K Jain, V.K Chaudhary, Anita R Sehrawat.Micropropagation in sugarcane (Saccharum officinarum). 30(3-4): 41-44.2001 Current Research.
- 25 **Anita Punia**, , R.K Jain, V.K Chaudhary, Anita R Sehrawat.Efficient and cost effective micropropagation of two early maturing varieties of sugarcane. (L)611-618.2000 Indian Sugar. (L):
26. Gulati, M. Singh B. Sareen and **Anita Punia**.Estimation of germination loss in four pulses from infestation by Suidasia nesbitti. 14(1&2): 112-115.1999R. Journal of Acarology.
27. Amandeep Kaur, Rakesh Kumar Suman Rani and **Anita Grewal** Genetic diversity analysis of Lepidium sativum using Inter simple sequence repeat (ISSR) markers (2015) 26(1):107–114DOI 10.1007/s11676-014-0545-.2014 Journal of Forestry Research. Impact: 0.7

28. Shalini Goyat, **Anita Grewal**. Marker assisted sex differentiation in dioecious plants. 2015 9(8), 531-549 Journal of Pharmacy Research. Impact: 2.4
29. A. Kumar, Ashraf S, Goud T S, Sirinivisulu P, Chaudhury R, Saini S, **Grewal A**, Singh S V Comparative integrity of riverine buffalos (*Bubalus bubalis*) under tropical climatic conditions. Indian J of Dairy Sci. 67(6) 1-6. 2014 NAAS: 4.8 Impact: 0.3
30. Rashmi Arora, Anita Grewal Biogenic Synthesis, Characterization of Silver Nanoparticles from *Candelula Officinalis* Extract and Evaluation of their Antimicrobial Activity 7(2), 47-51, 2015 Journal of Nanobiomedicine Engineering
31. Kumar, Ashraf S, Goud T S, Sirinivisulu P, Chaudhury R, Saini S, **Grewal Anita**, Singh Expression profiling of major heat shock protein genes during different seasons in cattle (*Bos indicus*) and buffalo (*Bubalus bubalis*) under tropical climatic condition 51 (2015) 55–64 <http://dx.doi.org/10.1016/j.jtherbio.2015.03.006> Journal of Thermal Biology Impact: 1.5
32. Amandeep Kaur, Om Prakesh Gupta, Nand Lal Meena, **Anita Grewal**, Pradeep Sharma. Comparative Temporal Expression Analysis of Micro RNAs and Their Target Genes in Contrasting Wheat Genotypes During Osmotic Stress 2016 DOI 10.1007/s12010-016-2236-z Appl Biochem & Biotechnol Impact: 1.6
33. Divya Dhaka, Divya Bhatia, Anita Grewal, and Deepak Kumar Malik Molecular characterization of bacteria isolated from rhizospheric and non-rhizospheric soil of *Saraca asoca* 2017, 11(6), 762-766 Journal of Pharmacy Research. Impact factor : 2.6
34. Pragya Bhasin, Dinesh Bansal, Sehrawat A and **Anita Grewal** Rapid Micropropagation of *Lepidium sativum* L-A medicinal Herb for folklore remedies 9(7), 480-483, 2015 Journal of Pharmacy Research. Impact factor : 2.6
35. Ankur saini, Ritika, **Anita Grewal** Comparing inhibiting activity of HIV =1 Protease between Indinavir and its modifications using computational approaches 2016, vol4(3) 1-4 Indian Journal of Bioinformatics & Biotechnology
36. Shalini Goyat, **Anita Grewal**, Devendra Singh, R.S. Katiyar, S.K. Tewari, R.C Nainwal, K. Hima Bindu Evaluation of Genetic Diversity of Piper betle cultivars using ISSR markers. 2016, Volume 4, Issue 1, 571- 579 International Journal of Advanced Research
37. Pooja Devi, Gurvinder Kaur, Anupma Thakur, Navneet Kaur, **Anita Grewal**, Praveen Kumar Waste derivitized blue luminescent carbon quantum dots for selenite sensing in water. 170 (2017) 49–55 Talanta Impact factor : 3.5
38. Rakesh Kumar , Mamutha M, Kaur. A, Venkatesh K. **Anita Grewal** Kumar R, Tiwari V Development of an efficient and reproducible regeneration system in wheat.

2017,Doi10.1007/s12298-017- Physiology & Molecular Biology of Plants 463-6 Impact factor : 0.8

39. Shalini Goyat, **Anita Grewal**, Devendra Singh, R.S. Katiyar, S.K. Tewari, R.C Nainwal, K. Hima Bindu Amplified Fragment Length Polymorphism (AFLP) Based Genetic Diversity Studies in Betel Vine (*Piper betle* L.) East African Agricultural and Forestry Jodoi.org/10.1080/00128325.2017.1364479Vol 82 (2-4)pg 118=129

40. Rakesh Kumar , Mamutha M, Kaur.A, Venkatesh K. **Anita Grewal** Kumar R, Tiwari V Synergistic Effect of Cefotaxime and Timentin to suppress the agrobacterium over growth in wheat (*triticum aestivum* l.) transformation Sc. 2017,Vol. 19, No. (4) : 184-190 Asian Jr. of Microbiol. Biotech. Env. NAAS: 4.9 Impact factor:0.11

41. Rakesh Kumar , Mamutha M, Kaur.A, Venkatesh K. **Anita Grewal** Kumar R, Tiwari V Comparative analysis of DNA methylation changes in two contrasting wheat genotypes under water deficit. 2018. Volume 62, [Issue 3](#), pp 471–478 Biologia Plantarum Impact factor : 1.5

42. Vikas Dutt, Vikram Saini Prachi Gupta, Nirmaljeet Kaur, **Anita Grewal**, Sanjeev Gupta, Anita Dua S allyl Cyseine inhibits TNF induced skeletal muscle wasting through supressing proteolysis & expression of inflammatory molecules. 2018:1862,895-906 BBA, General subjects, Impact factor : 4.7

43. Shalini Goyat, **Anita Grewal**, Devendra Singh, R.S. Katiyar, S.K. Tewari, R.C Nainwal, K. Hima Bindu Sex-linked AFLP marker identification in dioecious Betelvine (*Piper betle* L.) 2019,94:4, 422-427, DOI: 10.1080/14620316. The Journal of Horticultural Science and Biotechnology 2018.1538707 Impact factor:0.7

44. Vikas Dutt, Vikram Saini Prachi Gupta, Nirmaljeet Kaur, **Anita Grewal**, Sanjeev Gupta, Anita Dua Efficient & modified protocol for zymography to detect muscle specific calpain activity. 2017,10,96-103 Biocatalysis & Agricultural Biotechnology Impact factor:1.8

45. A Kumar, Ashraf S, Goud R.K goud, **Anita Grewal**,S.V. Singh,BR Yadav, R.C Upadhayay Assessment of adaptability of Zebu cattle (*Bos indicus*) breeds in two different climatic conditions :using cytogenetic techniques on genome integrity. DOI 10.1007/s00484-015-1080-0 International

46. Ravisha Raina and **Anita Grewal**.Analysis of genetic diversity among different Rose genotypes using morphological and molecular markers (ISSR) 2021 8(5), 14-23 International Journal of Current Research in Biosciences and Plant Bioloy

47. Neha Sarova, S . Ahwalat, a. Grewal, R.Sharma, R .Arora Differential Promoter methylation of DAZL gene in bulls with varying seminal parameters 2018 Aug; 53(4):914-920 Reproduction in Domestic Animals Impact Factor :2.0

48. Sunita Khatak, Sumita Saini, **Anita Punia**, Kmal, Baspreet. Invitro micropropagation and assessment of genetic fidelity analysis in *Catharanthus roseus*. 2016. Vol2 (4), 322-334. International journal of Innovative research in science & Engineering.

49. J V Singh, Subhash chander **and Anita Punia** Studies on characters association in clusterbean *Cymopsis tetragonoloba* (L.) taub 2002, 4 (1) : 71-74 National . J. Plant . Improvement

50. Baljeet Singh Saharan, **Anita Grewal**, Pardeep Kumar Biotechnological Production of Polyhydroxyalkanoates: Chinese Journal of Biology Impact Factor: 0.07

A Review on Trends and Latest Developments Volume 2014, Article ID 802984, 18 pages

<http://dx.doi.org/10.1155/2014/802984>

51. Swati Jasst and **Anita Grewal**. Green synthesis of silver nanoparticles, characterization and evaluation of their photocatalytic dye degradation activity 4 (2021) 100195  
<https://doi.org/10.1016/j.crgsc.2021.100195> Current Research in Green and Sustainable Chemistry

#### **Publication (other than Research Papers)**

1. Chapter: Bacterial and fungal degradation of nitroglycerine Pg : 149-161, 2013 Edited book: Biological Remediation of Explosive residue ; Environmental Sci & Engineering Editor: Shree Nath Singh, Publisher

Springer International Publishing Switzerland DOI: 10.1007/978-3-319-0-01083

2. Chapter: Mothbean diseases Pg: 103-116, 2002 Edited book Mothbean in India Editor : D Kumar & N B Singh Publisher: Scientific publishers India, Jodhpur ISBN: 81-7233-311-0
3. Single cell protein- Alternate protein source pg: 737-762, 2013 Edited book: Microbes in the service of mankind

Editor: Nagpal , Kumar , Singh Publisher: JBC press, New Delhi ISBN: 978-93-81558-85-0

4. Screening of clusterbean germplasm against root rot and bacterial leaf blight. ISBN: 81-7233-310-2 Pg 415-418, 2002 Edited book Advances in Arid legume research Editor: A Henry, D Kumar & N B Singh Publisher: Scientific publishers India, Jodhpur

5. Bioremediation- Environmental clean up operations Pg 614-641 Edited book: Microbes in the service of mankind Editor: Nagpal , Kumar , Singh Publisher: JBC press, New Delhi ISBN: 978-93-81558-85-0
6. Storage of grains Pg 198 Subject Book: CSIR Delhi & CCSHAU Hisar Dr. Manju Singh, Dr Rachna Gulati , Anita Punia, Bhawna Sareen

7. Chapter conference Proceedings; Role of bioinformatics tools in biotechnology-A review.

Pg 101-106, 2011 National Seminar on Internet Applications in research organized by Dept Zoology, MDU, Rohtak.

8. Biotechnological Approaches for production of secondary metabolites-A review, 2012 Seminar on New Perspectives in Aromatic & Medicinal Plants Organised by Med & aromatic plant section CCSHAU, Hisar

**Paper presented in paper in Seminars/Conferences**

1. Association of RAPD, ISSR, PAGE markers for genetic relationship in *Lepidium Sativum* in National workshop On Genomics in Crop Improvement 27-28 Feb, 2014 Centre for Biotech, MDU, Rohtak
2. Molecular marker based genetic fidelity analysis of regenerated plants in International Conference on Biotechnology Emerging Trends 18-20 Sep, 2012 Dept of Biotech, CDLU, Sirsa
3. Antimicrobial prospectives of organic extracts of *T. cordifolia* in National Conference on Biodiversity Challenges & Opportunities 18-19 Feb, 2011 Dept of Botany, MDU, Rohtak
4. Antimicrobial activities of different extracts of *Tinospora* on *Streptococcus* & *Staphylococcus aureus* in National Conference on Converging Technologies beyond 2020, 6-7 APRIL, 2011, UIET KUK
5. Transcript Expression profiling of Annexin multigene family in rice under drought in International conference on Crop Technology Led Agriculture Development and Sustainability of ecosystem in India . 26-27 March, 2015, University College, KUK
6. Applications of Silver nanoparticles synthesized from *Phyllanthus emblica* in Food Technology Emerging trends in Food Technology Emerging trends 24-25 March 2015 Dept of FST, CDLU, Sirsa
7. Alginate coated nodal explants for artificial seed synthesis in endangered plant Brahmi in International Conference on emerging trends in Biotechnology. 6-9, Nov, 2014 JNU, New Delhi
8. Biosynthesis of silver nanoparticles from *Simarouba glauca* in National Conference on Nanoscience and Instrumentation Technology. 4-5 June, 2016, NIT, KKR
9. Biosynthesis Characterization and antimicrobial studies of silver nanoparticles from citrus limon in 14-16 Jan 2016, International Conference on Materials for the Millennium, Deptt. Applied Sci Cochin University of Sci & Technology, Kochi
10. Molecular & Morphophysiological characterization of superior abiotic stress tolerant genotypes in cluster bean in National Seminar on Futuristic Agriculture for sustainable food security 21-23 Feb 2018 ANGRAU, Tirupati

