

BIO-DATA

1. Name : DR. ARNEET GREWAL
2. Designation : ASSISTANT PROFESSOR
3. Department : BOTANY
4. Date of Birth : 04.02.1976
5. Address for Correspondence : Department of Botany,
Punjabi University,
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- 6 Areas of Specialisation : Cytogenetics

7. Academic Qualifications:

S. No.	Degree Held	Year	Board/Univ./ Inst.	% of marks	Div.	Subjects Taken
1.	Matric	1991	I.C.S.E	81.3	1 st	
2.	B.Sc.	1996	Govt. Mohindra College, Patiala.	63.25	1 st	Botany, Zoology, Chemistry
3.	M. Sc.	1998	P.U. Patiala	69.75	1 st	Botany
4.	Ph.D.	2004	P.U. Patiala			Botany

8. Membership of Professional Bodies/Organisations:

Life Member, Punjab Academy of Science, Patiala
Life Member, The Biotech Research Society, India

9. Medals/Awards/Honours/Received:

1. Merit Scholarship from Punjabi university, Patiala 1997-98
2. A. C. Joshi Award, Botanical Society, Department of Botany, Punjabi University, Patiala 1997-98
3. Hooker Memorial Award, Botanical Society, Department of Botany, Punjabi University, Patiala 1997-98

10. Scholarships:

Senior Research Fellow (C.S.I.R., New Delhi) 2003-05

11. Details of Experience:

S. No.	Name of the Inst./Employer	Position Held	Duration	Major Job Responsibilities and Nature of Experience
1.	Department of Botany, Punjabi University, Patiala	Assistant Professor	4 July, 2007- Till date	Teaching and Research.

12. Published Work (Please specify numbers only):

- a. Research Publications i) National = 08
ii) International = 15
b. Conference/Seminar Presentation: 18

13. R & D Projects: Completed One Project

**“To study the chromium uptake potentialities of various plants for phytoremediation”
CSIR, New Delhi**

14. M. Phil/ Ph.D. Students guided/under guidance (Details):

	Name of Student	Title of Thesis	Year of Award
Ph. D.			
1.	Ms. Ramneet Kaur	Morphogenetic and Phytochemical Evaluation of Genus <i>Abutilon</i> Mill. from North-West India.	2017
2.	Ms. Navdeep Kaur	Bioprospecting Genetic Diversity in some Endangered Plants of Punjab and their Conservation . (Co-guide)	2017
3.	Ms. Puga Garg	Evaluation of Cytomorphological, Phytochemical and Genetic Diversity of <i>Ageratum</i> Species from North-West India.	2019
Students registered in Ph.D.			
1.	Ms. Satinder Kaur	Morphogenetic Diversity and Phytochemical Evaluation of Genus <i>Sida</i> from North Indian Plains.	
2.	Ms. Poonam Rani	Morphogenetic Diversity of Monocots Excluding Sedges and Grasses from North-West India.	
3.	Ms. Farhana Majid	Morphogenetic Diversity of <i>Lamiaceae</i> from North-West India.	
4.	Ms. Hardeesh Kaur	Morphogenetic Diversity of <i>Cactaceae</i> from North-West India.	
5.	Mr. Gursimran Singh	Studies on Cytomorphological and Biochemical Diversity in Family <i>Crassulaceae</i> J. St.-Hil. from North-West India.	
M. Phil.			
1.	Ms. Satinder Kaur	Evaluation of Cytomorphological Diversity, Antioxidant and Antimicrobial Activity in Species of <i>Sida</i> from Punjab.	2014
2.	Ms. Farhana Majid	Cytomorphological Studies in some Members of <i>Lamiaceae</i> from North-West Himalaya.	2018

15. M. Sc. Students guided (Details):

M. Sc. Students (Five Year Integrated course)

1. Mr. Harpreet Sharma Gametophytic chromosome counts in some wild plants. 2017
2. Ms. Jaspreet Kaur Gametophytic chromosome counts in some wild plants. 2018

3.	Ms. Sukhpreet Kaur	Morphogenetic and biochemical studies on <i>Abutilon indicum</i> .	2019
4.	Ms. Jyotpreet Kaur	Morphogenetic and biochemical studies on <i>Boerhaavia chinensis</i> and <i>Boerhaavia diffusa</i> .	2019
5.	Ms. Vaishali Gandhi	Cytological and morphological studies on <i>Tridax procumbens</i> .	2020
6.	Ms. Navjot Kaur	Morphological and cytological studies on some members of <i>Solanaceae</i> .	2021
7.	Ms. Bipanpreet Kaur	Cytological studies on <i>Sonchus</i> species from Punjab.	2021
8.	Ms. Gurleen Kaur	Indian <i>Abutilon</i> species: A review.	2022
9.	Ms. Isha	A Review of plants of Medicinal Garden, Botany Department, Punjabi University, Patiala.	2022
10.	Ms. Diksha Gupta	A review on taxonomy, cytogenetic studies and medicinal importance of Indian species of <i>Salvia L.</i>	2023
11.	Mr. Raghav	A review of taxonomy, cytogenetic studies and medicinal importance of Indian <i>Sida L.</i> species.	2023
12.	Ms. Sidiqdeep Kaur	A review on taxonomy, cytogenetic and medicinal importance of Indian species of <i>Ocimum L.</i>	2023

M.Sc. Students (Two Year course):

1.	Mr. Harpreet Singh	Cytomorphological studies in some wild plants of Punjabi University, Patiala.	2015
2.	Ms. Mandeep Kaur	Morphological, genetic, biochemical and bioactivity studies on <i>Ipomea carica (L.)</i> Sweet.	2016
3.	Ms. Pratyasha Nayak	Evaluation of genotoxic potential of soils using <i>Allium</i> assay.	2017

16. List of Papers/Courses taught at P.G. and U.G. Level

S. No.	Paper	Class
1.	Physical and Cell basis of Life	FYIP I
2.	Genetic Material, Expression, Regulation and Development	FYIP I
3.	Introduction to Plant Taxonomy	FYIP III
4.	Molecular Genetics	FYIC IV
5.	Phytogeography and Applied Ecology	FYIC V
6.	Cell Biology	M.Sc. I
7.	Molecular Biology	M.Sc. I
8.	Cytogenetics	M.Sc. I and FYIP III
9.	Plant Conservation and Sustainable Development	M. Sc. I
10.	Plant Ecology	M. Sc. II

17. Technical Proficiency:

<p>I. Cytological Analysis: Meiotic as well as Karyotypic.</p> <p>II. Environmental toxicology: Monitoring eco-genotoxins using Plant based assays.</p> <p>III. Mutagenicity assays: Allium assay, Ames assay, REC assay, MNC assay.</p> <p>IV. Bioactivity assays: Antioxidant assay, antimicrobial assay.</p> <p>V. Plant biochemical analysis: Detection, Isolation and characterization of phytochemicals.</p> <p>VI. Molecular biology techniques: DNA extraction, purification, amplification and sequence interpretation.</p>
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18. List of Papers Published:

1. M.I.S. Saggoo and **Arneet Grewal**. 2003. Safety evaluation of leafy vegetables grown over chromium amended soil. *Environmental Informatics Archives* **1**: 591-596.
2. M.I.S. Saggoo and **Arneet Grewal**. 2006. Genotoxic potential and nutritive quality of spinach harvested from chromium rich soil. *Pollution Research* **25(4)**: 793-797.
3. M.I.S. Saggoo, Kirandeep Kaur and **Arneet Gill**. 2007. Assessment of genotoxic potential of soil samples from Talwandi Sabo block, Punjab using *Allium* assay. *Journal, Punjab Academy of Sciences* **4(1&2)**: 42-46.
4. M.I.S. Saggoo, **Arneet Gill** and Nivedita. 2009. *In vivo* accumulation of cadmium by some food crops. *Journal, Punjab Academy of Sciences* **5-6 (1 & 2)**: 82- 87.
5. **Arneet Gill** and M.I.S. Saggoo. 2009. Mutagenic potential and food quality of *Amaranthus* raised over chromium amended soil. *Indian journal of Environmental Sciences* **13(2)**: 121-127.
6. M.I.S. Saggoo and **Arneet Gill**. 2009. Biological diversity within members of Indian Acanthaceae. In: *Germplasm Diversity and Evaluation- Angiosperms*. N.S. Atri, R.C. Gupta, M.I.S. Saggoo and V.K. Singhal (Eds.), Bishen Singh Mahendra Pal Singh Publishers, Dehra Dun, U.K. (India).
7. **Arneet Gill** and M.I.S. Saggoo. 2010. Mutagenic potential and nutritive quality of turnip plants raised over chromium amended soils. *International Journal of Botany* **6(2)**: 127-131.
8. M.I.S. Saggoo, **Arneet Gill** and Kirandeep Kaur. 2010. Excessive arsenic content in the soil may be injurious to health: a genotoxic study from Jajjal, Punjab. *Bionature* **30(1)**: 1-6.
9. M.I.S. Saggoo, **Arneet Gill** and Shilpa Walia. 2011. Cytomixis during microsporogenesis in some populations of *Croton bonplandianum* of North India. *Cytologia* **76(1)**: 67- 72.

10. M.I.S. Saggoo, N. Kaur and **Arneet Gill**. 2014. Variable response of three morphotypes of *Tecomella undulata* (Sm.) Seem towards human pathogenic bacteria. *International Journal of Pharmacy and Pharmaceutical Sciences* **6(9)**: 428- 431.
11. P. Garg, **Arneet Grewal** and Raman K. Verma. 2015. *In vitro* antibacterial activity of *Ageratum conyzoides* L. (Asteraceae). *World Journal of Pharmacy and Pharmaceutical Sciences* **4(7)**: 893- 897.
12. **Arneet Gill** and Ramneet Kaur. 2015. Cytomorphological investigation of some species of *Abutilon* Mill. from Punjab. *Journal of New Biological Reports* **4(3)**: 219-227.
13. Satinder Kaur and **Arneet Gill**. 2016. Cytomorphological diversity of genus *Sida* from Punjab. *Journal of Punjab Academy of Sciences* 41-44.
14. M.I.S. Saggoo, Navdeep Kaur and **Arneet Gill**. 2016. Economically valuable *Tecomella undulata*- an endangered tree of arid zone. 'INSIGHT' an *International Journal of Science* **2**: 8-12.
15. **Arneet Gill**, R.K. Verma and Puja Garg. 2016. Cytomorphological diversity of *Ageratum species* from North-West India. *Annals of Plant Sciences* **5(3)**: 1289-1295.
16. **Arneet Gill** and Ramneet Kaur. 2016. Meiotic studies on *Abutilon indicum* (L.) Sweet from North Indian Plains. *Cytologia* **81(4)**: 379-382.
17. Navdeep Kaur, **Arneet Gill** and M.I.S. Saggoo. 2018. Cytological investigation and genetic diversity studies in the morphotypes of an endangered tree, *Tecomella undulata* from Punjab. *Cytologia* **83(3)**: 283-287.
18. **Arneet Grewal** and Poonam Rani. 2019. Meiotic Studies in *Cyanotis cristata* and *C. vaga* from Several Localities in North-West India. *Cytologia* **84(1)**: 9- 13.
19. **Arneet Grewal** and Safeer Ahmed. 2020. *Lepisorus scolopendrium* from Jammu & Kashmir. *Indian Fern Journal* **37**: 145- 152.
20. **Arneet Grewal** and Ramneet Kaur. 2020. Genetic diversity in species of *Abutilon* Mill. From North- West India. *Cytologia* **85(1)**: 45-48.
21. **Arneet Grewal** and Poonam Rani. 2021. New record of chromosome count and B- chromosome in *Tinantia erecta* (Jacq.) Fenzl collected from different localities of Mussoorie, Uttarakhand (India). *The Nucleus* <https://doi.org/10.1007/s13237-021-00359-y>.
22. **Arneet Grewal** and Poonam Rani. 2022. A New Record of Chromosome Count for *Costus pictus* D. Don. *Cytologia* **87(4)**: 391–395.
23. Karol Marhold, Jaromír Kucera, Hernán Alvarado-Sizzo, Edna Arévalo-Marín, Svetlana Botlová, Charles R. Clement, Puja Garg, **Arneet Grewal**, Seyed Mohsen Hesamzadeh Hejazi, Iva Hodálová, Ramneet Kaur, Puneet Kumar, Giulia Melilli Serbin, Raquel Moura Machado, Monika Majerová, Pavol Mered'a, Diego de Barros Sotero Pinangé, Poonam Rani, Harminder Singh, Sushil Kumar Singh, Katarína Skokanová & Stanislav Spaniel. 2022. IAPT chromosome data 37. *Taxon* **71(6)**: 1349-1352.

19. Book Published-

- **Arneet Gill** and M.I.S. Saggoo. **2012.** *Chromium Bioaccumulation: Consumability Potential of Vegetables.* LAP Lambert Academic Publishing, Germany.