

Name : Dr. MANINDER
Designation : Assistant Professor
Specialization : Cytogenetics, Taxonomy of angiosperms
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Education:

M.Sc. Botany (2007, Kurukshetra University, Kurukshetra),
M.Phil. Botany (2008, Kurukshetra University, Kurukshetra),
National Eligibility Test (NET)- December, 2011
Ph.D. (22nd December, 2017 Punjabi University, Patiala)

Title of Ph. D Thesis: Evaluation of cytomorphological diversity in the dicots of Solang Valley (Himachal Pradesh).

Professional Experience:

- Department of Botany, Multani Mal Modi College, Patiala, India (22.10.2018-till date).
- Department of Botany & Environmental Science, SGGSW University, Fatehgarh Sahib, India (11.08.2017-31.05.2018).
- Department of Botany, Arya Kanya Mahavidyalya (Shahabad), Kurukshetra, India (01-11-2007 to 15-03-2009).

Teaching Interests:

- Taxonomy of Angiosperms
- Plant Systematics
- Plant Biotechnology
- Economic Botany
- Anatomy of Angiosperms

List of Papers Published:

1. Vijay Kumar Singhal, **Maninder Kaur**, Himshikha, Puneet Kumar and Raghbir Chand Gupta, "High pollen sterility and 2n Pollen Grains in an asynaptic 4x cytotype (2n=48) of *Solanum nigrum* L." *Cytologia* (2012) **77 (3)**: 333-342.
<http://ugcdskpdf.unipune.ac.in/Journal/uploads/BL/BL100184-A-7.pdf>
2. Vijay Kumar Singhal, Dalvir Kaur, **Maninder Kaur**, Himshikha, Pawan Kumar Rana, Punnet Kumar and Raghbir Chand Gupta "Multiple associations due to structural heterozygosity in the wild plants of *Achillea millefolium* L. from Northwest Himalayas (India)". *Cytologia* (2014) **79 (2)**: 151-159.
https://www.istage.jst.go.jp/article/cytologia/79/2/79_151/_article
3. **Maninder Kaur** and Vijay Kumar Singhal "First report of cytomixis and meiotic abnormalities in *Nepeta govaniensis* from Solang Valley, Kullu District, Himachal Pradesh". *Cytologia* (2014) **79 (2)**: 227-233.
https://www.istage.jst.go.jp/article/cytologia/79/2/79_227/_article/-char/en
4. **Maninder Kaur** and Vijay Kumar Singhal "Cytomorphological diversity in some members of family Asteraceae from the ecologically disturbed habitats of Solang valley, Kullu District, Himachal Pradesh". *Cytologia* (2015) **80 (2)**: 203-222.
https://www.istage.jst.go.jp/article/cytologia/80/2/80_203/_article
5. Rohit Kumar, Pawan Kumar Rana, Himshikha, Dalvir Kaur, **Maninder Kaur**, Vijay Kumar Singhal, Raghbir Chand Gupta and Puneet Kumar "Structural heterozygosity and cytomixis driven pollen sterility in *Anemone rivularis* Buch.-Ham. ex DC. from Western Himalayas (India)". *Caryologia* (2015). **68 (3)**: 246-253.
<https://www.tandfonline.com/doi/full/10.1080/00087114.2015.1032615>
6. **Maninder Kaur**, and Vijay Kumar Singhal "Male meiotic study in a newly detected triploid cytotype of *Tussilago farfara* L. (Asteraceae)". *Cytologia* (2016) **80 (4)**: 441-445.
https://www.istage.jst.go.jp/article/cytologia/80/4/80_441/_article
7. **Maninder Kaur**, Himshikha and Vijay Kumar Singhal "Occurrence of syncytes: A possible mechanism owing to the origin of polyploid cytotypes in *Achillea millefolium* L. within

- Indian Himalayas". *Cytologia* (2017) **82 (4)**: 375-384.
https://www.jstage.jst.go.jp/article/cytologia/82/4/82_MS1925/article
8. Vijay Kumar Singhal, Rohit Kumar, Himshikha, Puneet Kumar, Dalvir Kaur, **Maninder Kaur**, Pawan Kumar Rana, and Raghbir Chand Gupta "A profile of male meiosis, chromosomal variation and chromosomal status in species of *Impatiens* from North-West Himalayas in India". *Caryologia* (2017) **70 (3)**: 258-269.
<https://www.tandfonline.com/doi/full/10.1080/00087114.2017.1344084>
 9. **Maninder Kaur** and Vijay Kumar Singhal "First ever record of cytomixis and associated meiotic irregularities resulting into reduced pollen fertility (%age) in *Clematis buchananiana* DC". *IJSER* (2017) **8(7)**: 364-379. <https://www.ijser.org/researchpaper/First-ever-record-of-cytomixis-and-associated-meiotic-irregularities-resulting-into-reduced-pollen-fertility-age-in-Clematis-buchananiana-DC.pdf>
 10. **Maninder Kaur**, Vijay Kumar Singhal, and Jaswant Singh "Use of some ethnomedicinal herbs by the natives of Solang valley, Kullu District, Himachal Pradesh". *Int. J. Pharm. Pharmaceut. Sci.* (2017) vol. 9 (9): 222-227.
 DOI <https://doi.org/10.22159/ijpps.2017v9i9.20664>
 11. Vijay Kumar Singhal, Younas Rasheed Tantray, **Maninder Kaur**, Pawan Kumar Rana and Raghbir Chand Gupta "Intraspecific polyploidy (2x, 4x) in *Primula denticulata* Sm from Northwest Himalayas in India". *Cytologia* (2018) **83 (1)**: 31-35.
<https://pdfs.semanticscholar.org/3189/f78c53d63de0e8d885479a1bfb5cf4e7881e.pdf>
 12. Younas Rasheed Tantray, Vijay Kumar Singhal, **Maninder Kaur** and Raghbir Chand Gupta "Cytomorphological comparison in natural intraspecific cytotypes (2x, 4x) in *Brachyactis pubescens* from North West Himalayas". *Cytologia* (2018) **83 (3)**: 245-249.
https://www.jstage.jst.go.jp/article/cytologia/83/3/83_D-18-00003/article-char/en
 13. Younas Rasheed Tantray, Vijay Kumar Singhal, **Maninder Kaur** and Raghbir Chand Gupta "Male meiosis and chromosomal status in the genus *Lactuca* L. from Western Himalayas (India)". *Cytologia* (2018) **83(3)**: 311-316.
https://www.jstage.jst.go.jp/article/cytologia/83/3/83_D-18-00003/article-char/en

14. **Maninder**, Vijay Kumar Singhal “Irregular meiotic behaviour resulted into abnormal sporad formation and low pollen fertility in two accessions of *Caltha palustris*”. Jour. Emerging Tech. Innov. Res. (2018) **5 (8)**: 300-305. <http://www.jetir.org/papers/JETIR1808792.pdf>
15. **Maninder**, Vijay Kumar Singhal “Cytomixis and associated meiotic abnormalities resulted into abnormal sporads and low pollen fertility in *Ranunculus laetus*”. Jour. Emerging Tech. Innov. Res. (2018) **5: (8)** 306-311. <http://www.jetir.org/papers/JETIR1808793.pdf>
16. **Maninder**, Vijay Kumar Singhal “First ever record of meiotic chromosome count, cytomixis and associated meiotic irregularities in *Silene gallica* L.” Jour. Emerging Tech. Innov. Res. (2018) **5 (8)**: 327-330. ISSN NO. 2349-5162.
<http://www.jetir.org/papers/JETIR1808797.pdf>
17. **Maninder Kaur**, Vijay Kumar Singhal, Younas Rasheed Tantray and Raghbir Chand Gupta “Occurrence of meiotic abnormalities and a new report of tetraploid cytotype (4x) of *Artemisia nilagarica* (C.B. Clarke) Pamp. from Kullu district in Northwest Himalayas” *Taiwania* 2019 **64(1)**: 74-79. <https://taiwania.ntu.edu.tw/abstract.php?type=abstract&id=1597>

List of Conferences Attended:

- Participated in 10th National conference on recent advances in chemical and environmental sciences (Races-2019) and presented a poster entitled “ **A cytomorphological account on some members of family Asteraceae from geographically isolated and ecologically distrurbed habitats of Solang Valley, Kullu District, Himachal Pradesh**” April 11-12, 2019.
- Participated in National conference on Research in Plant Sciences for Sustainable development and presented a seminar entitled on “**Evaluation of cytomorphological diversity in family Astercaceae from Solang Valley, Kullu District (Himachal Pradesh)**” March 16-17, 2018.
- Participated in 9th National conference on recent advances in chemical, biological, and environmental sciences (Races-2018) and presented a poster entitled “**First ever record of meiotic irregularities resulting into reduced pollen fertility in *Clematis buchananiana***” February 9-10, 2018.

- Participated in National Botanical conference and presented a poster entitled **“Abnormal spindle activity and chromatin stickiness induced pollen sterility in *Artemisia nilagirica* from Northwest Himalayas”** September 15-17, 2017.
- Participated in National conference on basic and applied researches in plants and microbes and presented a poster entitled **“Multiple associations of chromosomes due to structural heterozygosity in the wild accessions of *Achillea millefolium* L. from Solang Valley, Kullu District, Himachal Pradesh.”** November 03-05, 2016.
- Participated in 18th Punjab Science Congress (2015) and presented a poster entitled **“First Ever Report of Triploid Meiotic Chromosome Counts in a Well Known Medicinal Herb *Tussilago farfara* L.”** February 07-09, 2015.
- Attended National Symposium on “Emerging Trends In Botanical Sciences (2014) and presented a poster entitled **“First Ever Report of an Octoploid Cytotype (2n=64) in *Taraxacum officinale*”** organized by Department of Botany, Punjabi University, Patiala from February 17-18, 2014.
- Participated in 17th Punjab Science Congress and presented a poster entitled **“First Report of Cytomixis and Meiotic Abnormalities in *Nepeta govani* From Solang Valley, Kullu District, Himachal Pradesh”** from 15-17th February, 2014.
- Attended National conference on “Exploring Basic and Applied Sciences for Next Generation Frontiers” (EBAS-2014) and presented a poster entitled **“Use of Exploration of Ethnobotanical and Morphogenetical Diversity in the Flowering Plants of Solang Valley”** from 14-15 November.
- Attended National level conference on “Exploring Basic and Applied Sciences for Next Generation Frontiers” (EBAS-2014) and presented a poster entitled **“Cell Fusion Mediated Occurrence of Tetraploid and Hexaploid Syncytes in the Diploid Population of *Achillea millefolium* L. from 14-15 November”**
- Participated National Symposium on Plant Cytogenetics: New Approaches (2012) and presented a poster on the topic **“Unreduced and Sterile Pollen Grains in an Asynaptic 4x Cytotype (2n=48) Of *Solanum nigrum* L.”** organized by Department of Botany, Punjabi University, Patiala from 23-24 February, 2012.
- Participated in UGC sponsored regional seminar on **“Environmental Imbalances- Causes and Cure”** on 8th December, 2007).

Wokshops and Training courses:

- Completed workshop on “**Basic Molecular Biology Techniques**”, held at Sophisticated Instrumentation Centre (SIC), (Under DBT-IPLS Project), Punjabi University, Patiala-147002 from 11-14th August 2014.
- Attended faculty development program on emerging Issues and challenges in Higher Education at Multani Mal Modi College, Patiala (17-22nd July, 2019).

E resources developed

www.manudhot.wordpress.com

Awards and scholarships:

- ✓ Achieved Haryana State Merit Scholarship at Post Graduation level.
- ✓ Achieved Maulana Azad National Fellowship For Minorities 2011-12 for persuation of Ph.D. degree.

(Dr. Maninder)