

CURRICULUM VITAE



Name : Dr. MANINDER

Designation : Assistant professor

Specialization: Cytogenetics, Taxonomy of angiosperms

Email: maninderdhot84@gmail.com

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, Puneet 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.jstage.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.jstage.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.jstage.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 farafra* L. (Asteraceae)”. *Cytologia* (2016) **80** (4): 441-445. https://www.jstage.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 one day National webinar on the theme **“Hind di Chadar: Sri Guru TeghBahadur”** held on **August 26, 2020** organized by **Sri Guru TeghBahadur National Integration Chair, Punjabi University, Patiala.**
- Participated in one day National webinar on the theme **‘The Social and Religious Context of the Martyrdom of Sri Guru TeghBahadur Ji’** held on **July 16, 2020** organized by the **Department of NSS, NCC, BSG, Multani Mal Modi College, Patiala.**
- Participated in one day National webinar entitled **“Nanotechnology: A multidisciplinary Technology of 21st Century”** **July 10, 2020** organized by **Department of Physics, S. D. College, Barnala.**
- Participated in one day National webinar entitled **“National Capability Enhancement Conference: Education for Meaningful Life Part-3”** held on **July 2, 2020** organized by **Punjab Commerce and Management Association.**
- Participated in one day National webinar entitled **“Role of host induced gene silencing (HIGS) in crop improvement”** **July 02, 2020** organized by **Department of Botany, Punjabi University, Patiala.**
- Participated in Online quiz on Brain Exerciser entitled **“Phytomedicinal therapy”** held during **22-28th June, 2020** organized by **Department of Botany and Microbiology, St. Aloysius’ College (Autonomous College), Jabalpur (M.P.).**
- Participated in one day National webinar entitled **“Use of E-Resources in Agricultural Libraries”** held on **June 12, 2020** organized by **University of Agricultural Sciences, Dharwad.**
- Participated in three days National webinar series on the theme **‘Contemporary Prospects in Biological Sciences’** held from **June 10-12, 2020** organized by the **Department of Biotechnology, Srinivasan College of Arts & Sciences, Perambalur.**

- Participated in one day National webinar on the theme **‘DNA Fingerprinting and its Applications in Genetic Testing’** held on **June 8, 2020** organized by the **Department of Zoology, V.O. Chidambaram College, Tamilnadu, India.**
- Participated in one day National webinar on **“Awareness about Cancer: Symptoms, Diagnosis, Treatment”** held on **June 6, 2020** organized by **Department of Physiotherapy, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab, India.**
- Participated in one day National webinar entitled **“Role of Science and Technology during Covid-19 pandemic”** held on **June 6, 2020** organized by **Dayanand College, Hisar.**
- Participated in three days National webinar series on the topic **“Webinar series on Biodiversity: Governance, Management and Awareness”** held from **June 5 to June 7, 2020** organized by **School of Inspirational living, India and Conservation Research and Nature Education Society, India.**
- Participated in one day National webinar on **“Relevance of Scientific values in fighting the pandemic Covid-19”** held on **June 5, 2020** organized by **Department of Chemistry, S.S. Khanna Girls Degree College, Prayagraj.**
- Participated in one day **National webinar on World Environment Day, 2020** held on **June 5, 2020** organized by **Department of Botany and Environmental Sciences, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab, India.**
- Participated in one day National webinar on the theme **“Crosstalk between Ethnobotany and Immunology: A fight against Covid 19”** held on **June 5, 2020** organized by the **Department of Botany and Physiology in association with the IQAC, Prabhat Kumar College, Contal, West Bengal, India.**
- Participated in one day National webinar on **“Bioprospecting of Medicinal Plants: Challenges and Opportunities”** held from **June 3, 2020** organized by **Department of Botany, V.O. Chidambaram College, Thoothukudi.**
- Participated in one day national webinar entitled **“New opportunities in medicinal plants sectors for farmers and entrepreneurs”** **May 24, 2020** organized by **Department of Life sciences Mansarovar Global University, Sehore, Madhya Pradesh, India.**

- Published a book chapter entitled “**Cytomixis and other associated meiotic irregularities recorded in Tetraploid Marsh Marigold (*CalthaPalustris*) Accession scored from Kullu District, Himachal Pradesh**” in the *Proceedings of 3rd National Conference on Innovation in Bioscience and Technology (NCIBT-2020)*.
- 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 govaniiana* 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 persuasion of Ph.D. degree.

(Dr. Maninder)