#### DR. RENUKA AGRAWAL

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Current Designation: Assistant Professor, Department of Botany, Miranda House, University of

**Total Teaching Experience:** 13 Years

# **Academic Qualifications:**

- **Ph.D.**, Department of Botany, University of Delhi.
- M.Phil., Department of Botany, University of Delhi.
- **B.Ed.**, Central Institute of Education, University of Delhi.
- M.Sc., Miranda House, University of Delhi.
- B.Sc. (Hons.) Botany, Miranda House, University of Delhi.

# Field of Specialization under the Subject/Discipline:

- Molecular Cytogenetics
- Molecular Biology

## Fellowships/Scholarships/Distinctions

- Visiting Researcher (fellowship), Tottori University, Japan. 2008-2009
- Awarded Senior Research Fellowship (CSIR)
- Awarded Junior Research Fellowship (CSIR)
- Qualified **NET-JRF** (CSIR-UGC)
- Ranked among the Top 20% NET-JRF awardees in LIFE SCIENCES in the Joint CSIR-UGC test
- Qualified ICMR-JRF
- Awarded **Merit Scholarship** during B.Ed.
- Secured **First Rank** in M.Phil. course work.

#### **List of Publications:**

- 1. **Agrawal R**, Maheshwari A. Impact of Covid-19 Vaccination on Menstrual Health in Indian Females. Int J Pharm Sci Rev Res. 2023. 79(2), 212-217. ISSN 0976 044X.
- 2. **Agrawal R\***, Maheshwari A., Bajaj M., Gantayat N., Matta B. A Study on Spread & Symptoms of COVID-19 in India. Int J All Res Edu Sci Met. 2023. 11(4), 405-409. ISSN: 2455-6211
- 3. **Agrawal R**, Maheshwari A. (2022), "Role of fungi in biofuel production chain" in Myconanotechnology: Green Chemistry for Sustainable Development, Chapter 15, pg 352-371. ISSN (Online): 2452-0780, ISSN (Print): 2452-0772, ISBN (Print): 978-981-5051-37-7, Published by Bentham Science Publishers Pte. Ltd. Singapore.
- 4. Singh A. K., Bhardwaj J. K., Olival A., Kumar Y., Poddar A., Maheshwari A., **Agrawal R.**, Latha N., Thomas H., Rodriguese J., Singh B. K., Rathi B. (2016). Design, Synthesis and

- Biological Evaluation of Arylpiperazine Based Novel Phthalimides: Active Inducers of Testicular Germ Cell Apoptosis. J Chem Sci. 128 (8), 1245-1263. (IF-2.15)
- Agrawal R. and Maheshwari A., Eds, VR Rajpal et al. (2016), Genetic Improvement in the Genus Eleusine in Gene Pool Diversity and Crop Improvement Vol 1, Chapter 13, pg 393-413. Springer International Publishing Switzerland. ISBN: 978-3-319-27094-4
- 6. **Agrawal R**, Agrawal N, Tandon R and Raina S.N. (2014). Chloroplast genes as genetic markers for inferring patterns of change, maternal ancestry and phylogenetic relationships among Eleusine species". AoB PLANTS 6: plt056; doi:10.1093/aobpla/plt056. (IF 3.14)
- 7. **Agrawal R.**, Tsujimoto H., Tandon R., Rao S., and Raina S.N. (2013) "Species-genomic relationships among the tribasic diploid and polyploid *Carthamus* taxa based on physical mapping of active and inactive 18S-5.8S-26S and 5S ribosomal RNA gene families, and the two tandemly repeated DNA sequences". Gene 521: 136-144. (IF 3.9)
- 8. Dar T.H., **Agrawal R.**, Mir B.A., Dar G. H. (2013). Polyploidy: a tool that plants use to survive climate changes. Journal of Experimental Biology and Agricultural Sciences1: 13-15. (IS 0.42)
- 9. Mahmoudi A., Parida A., Chaudhary M., **Agrawal R**, Raina S.N. (2012). "Chromosome variation and evolution in Narbon vetch, *Vicia narbonensis* L." Phytomorphology 62: 49-56. (IF 0.154)

# **Sequence Submission to NCBI Database**

• Agrawal R, <u>Submitted 16 DNA sequences</u> (2013) to GenBank, accession numbers from KF357730-KF357745.

# Abstract Published/Poster Presentation in Symposium/ Conference

- 1. Matta B., Gantayat N., Maheshwari A., Agrawal R\* (2021). "Review on origin and transmission of SARS-CoV2". PP84 (Awarded Best Poster). Presented at 6th Annual International Conference of Indian Network for Soil Contamination Research (INSCR) on Microbes in Sustainable Development in association with ANDC, DDUC, Gargi College, KMC, Ramjas College, SV College, University of Delhi (DU), PG Department of Zoology, Magadh University, CMP Degree College, Allahabad University, Phixgen Pvt. Ltd. Gurugram, November 15-18 at Department of zoology, University of Delhi.
- 2. Singh K., Dubey G, Gupta P., Karn A., Maheshwari A., Agrawal R\* (2021). "Usage and effectiveness of common herbs for the management of covid-19: an online cross-sectional survey based study". PP85 (Awarded Best Poster), Presented at 6th Annual International Conference of Indian Network for Soil Contamination Research (INSCR) on Microbes in Sustainable Development in association with ANDC, DDUC, Gargi College, KMC, Ramjas College, SV College, University of Delhi (DU), PG Department of Zoology, Magadh University, CMP Degree College, Allahabad University, Phixgen Pvt. Ltd. Gurugram, November 15-18 at Department of zoology, University of Delhi.
- 3. Shakya R. and Agrawal R., 2015 (Poster Presentation) "Adapting to climate change: Natural Resource Management", 02-03 March, 2015 in DST-SERB supported National conference on "Climate Change: Impacts, Adaptation, Mitigation Scenario and Future Challenges in Indian Perspective" at Deen Dayal Upadhyaya College, University of Delhi, Delhi-110015.
- **4.** Raina S.N., Sehgal D. and **Agrawal R.** "Solving issues with regard to the ancestry and genome diagnostics: A case study of the genus *Carthamus*", 2009 (Oral presentation) at National symposium on "Recent global developments in the management of plant genetic resources" December 17-18, 2009 at National Bureau of Plant Genetic Resources, Delhi.

#### **Oral Presentation**

- 1. <u>Gantayat N.</u>, Maheshwari A., **Agrawal R\*** (2022). "Spread of Covid-19 in India". Presented at Online Interdisciplinary International Seminar series on 'Science and Society' from 22 February 2022 to 25 February 2022 organized by Miranda House, University of Delhi under the aegis of IQAC, MH, sponsored by CSIR, ICSSR.
- 2. Agrawal R. "Genetically Modified Crops" in a symposium on recent advances in biochemistry and molecular biology, February 10, 2001, organized by Department of Botany, University of Delhi, New Delhi

# **Research Projects:**

# DSKC summer projects:

- **1.** "Role of Phytochemicals and Vitamins in fertility" under the aegis of D.S. Kothari Central Inter-Disciplinary Research facility, Miranda House during June-July 2022.
- **2.** "Hidden Pandemic: Post Covid Complications" " under the aegis of D.S. Kothari Central Inter-Disciplinary Research facility, Miranda House during June-July 2021.
- **3.** "A Comprehensive Review Cum Survey on SARS-CoV-2, Its Origin, Evolution and Spread" under the aegis of D.S. Kothari Central Inter-Disciplinary Research facility, Miranda House during June-July 2021.
- **4.** "Effectiveness of Herbal and Allopathy Based Therapeutics Used Against COVID-19: A Review Cum Online Cross-Sectional Survey" " under the aegis of D.S. Kothari Central Inter-Disciplinary Research facility, Miranda House during June-July 2021.
- **5.** "Covid -19 Vaccines: A Comparative and Systematic Review" " under the aegis of D.S. Kothari Central Inter-Disciplinary Research facility, Miranda House during June-July 2021.
- **6.** "SARS-Cov2: A Survey based Study" under the aegis of D.S. Kothari Central Inter-Disciplinary Research facility, Miranda House during June-July 2020.

### DBT Star College Scheme

7. "Cytotoxic effect of antibiotics on plant root meristem cells" under DBT Star College Project during 2019-2020.

# Administrative/ other Responsibilities:

- 1. Staff advisor, Tricod (Life Sciences Society), Miranda House, May 2023- till date.
- 2. Member, Extended admission committee for B.Sc. Life Sciences, May 2023- till date.
- 3. Member, Jigyasa (Quiz Society), Miranda House, May 2023- till date.
- 4. Coordinator-NAAC, Department of Botany, June 2021- July 2023.
- **5.** Member, Garden Committee, Miranda House, 2015 till date.
- **6.** Staff advisor/Convener, Botanical Society "Antheia", Miranda House, July 2011 to July 2015; July 2019-July 2021.
- 7. Departmental Coordinator for Baseline Test conducted by Miranda House 2011-12, 2013-14, 2016-17.

**8.** Member, Extended admission committee for B.Sc. (H) Botany 2011-12, 2014-15.

# Other Responsibilities

- 9. Member, Discipline committee, annual college festival 2011- 2022.
- **10.** Mentor, mentor-mentee program 2016-till date.
- 11. Performed role as Judge in various Programs and Cultural activities of Department.
- **12.** Educational visit to India international Centre for Exhibition on "Indian women Scientist", March 13, 2019.
- 13. Educational visit to Sulabh International, New Delhi, September, 2016.
- **14.** Educational trip and excursion to Yamuna Biodiversity Park, October, 2015.
- **15.** Educational trip and botanical excursion to Bharatpur Sanctuary, October, 2012.

# **Membership Of Professional Bodies:**

Life member of Delhi University Botanical Society (DUBS).

# Conferences/Workshops/Webinars Organised

## Coordinator for the Workshops

- 1. 'RuBisCo: From Sequence to Protein Expression' A workshop for B.Sc. (H) Botany III year students from March 20-21, 2017 the DBT Star College Project and DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, New Delhi.
- 'From Symptom to Identification: Diagnosing Viral Disease in Plants' A workshop for B.Sc.
   (H) Botany III year students from March 31- April 1, 2016 under the DBT Star College Project and DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, New Delhi.
- 3. "Molecular Cloning Techniques" A workshop for B.Sc. (H) Botany students from 30 January 2013 1 February 2013 under the DBT Star College Project and DS Kothari Centre for Research and Innovation in Science Education, Miranda house, University of Delhi, New Delhi.
- 4. "PCR and Blotting Techniques" A workshop for B.Sc. (H) Botany students from 27-29 February, 2012 under the DBT Star College Project and DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, New Delhi.

### Member organizing committee

- 1. Dr. Renuka Agrawal was a member of organizing committee of the workshop on Composting Techniques held on 20 th October 2022 at Miranda House, University of Delhi, conducted by MH- Vatika, the Garden Committee and Department of Botany under the aegis of IQAC Miranda House, in collaboration with Biomass Utilization Unit, Indian Agricultural Research Institute (IARI) Pusa, New Delhi.
- 2. The webinar Discover Your Calling..., under the lecture series Career Counselling: Way Forward, organized by The Internal Quality Assurance Cell (IQAC), Miranda House, in collaboration with Antheia, the Botanical Society of Miranda House, University of Delhi, 19 July 2021.

- **3.** The Webinar "Tinkering with Plant Genomes" by Prof. Akhilesh Tyagi, organised by Department of Botany, Miranda House, on 06 July 2020 on Google Meet platform.
- **4.** Member organising committee for the workshop on "Air Pollution Mitigation: Species to Communities" organised by Department of Botany, Miranda House under the aegis of DBT Star College Scheme on 17 February 2020.
- **5.** The workshop on "Herbarium Techniques" organised by Department of Botany, Miranda House under the aegis of DBT Star College Scheme on 20 January 2020.
- **6.** The workshop on "Evolving Face of Microscopy: Magnifying Lens to Nanoscope" organised by Department of Botany, Miranda House under the aegis of DBT Star College Scheme in collaboration with Department of Botany, University of Delhi from 11-12 December 2019.
- 7. The Inspire Internship Programme, December 15-20, 2013, jointly organized by Department of Science and Technology, Government of India and DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, New Delhi.
- **8.** The Flag Off Ceremony of Vigyan Jyot, 99th Indian Science Congress Association, organized at Miranda House, University of Delhi, Delhi, 16 December 2011.

## **Resource person/Mentor:**

- Resource Person for the Bridge Course on Basic Laboratory Techniques for B.Sc. (Honours)
   Botany II Year and B.Sc. Life Sciences II Year students, 25 March-09 April 2022, D.S.
   Kothari Centre for Research and Innovation in Science Education; Department of Botany,
   Miranda House, University of Delhi, Delhi.
- 2. Resource Person for the Bridge Course on Basic Laboratory Techniques for B.Sc. (Honours) Botany I Year and B.Sc. Life Sciences I Year students, 24 February-05 March 2022, D.S. Kothari Centre for Research and Innovation in Science Education; Department of Botany, Miranda House, University of Delhi, Delhi.
- **3.** Resource person in Bridge course on basic laboratory techniques/skills for B.Sc Life Sciences I year students from August 08-09, 2019, organized by DS Kothari Centre for Research and Innovation in Science Education and Department of Botany, Miranda House, University of Delhi, New Delhi.
- **4.** Resource person in Bridge course on basic laboratory techniques/skills for B.Sc (H) I year students from August 01-02, 2019, organized by DS Kothari Centre for Research and Innovation in Science Education and Department of Botany, Miranda House, University of Delhi, New Delhi.
- **5.** Resource person in Bridge course on basic laboratory techniques/skills for B.Sc Life Sciences I year students from September 06-07, 2018, organized by DS Kothari Centre for Research and Innovation in Science Education and Department of Botany, Miranda House, University of Delhi, New Delhi.
- **6.** Resource person in Bridge course on basic laboratory techniques/skills for B.Sc (H) I year students from August 27-29, 2018, organized by DS Kothari Centre for Research and Innovation in Science Education and Department of Botany, Miranda House, University of Delhi, New Delhi.
- 7. Resource person for the workshop on "Laboratory techniques and instrumentation for

- laboratory staff' on 31 January and 7 February, 2018 organized by IQAC, Miranda House, University of Delhi, New Delhi.
- **8.** Mentor in the Inspire Internship Programme, December 18-22, 2017, jointly organized by Department of Science and Technology, Government of India and DS Kothari Centre for Research and Innovation in Science Education, Miranda house, University of Delhi, New Delhi.
- 9. Resource person for the workshop 'RuBisCo: From Sequence to Protein Expression' A workshop for B.Sc. (H) Botany III year students from March 20-21, 2017 the DBT Star College Project and DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, New Delhi.
- 10. Resource person in Bridge course on basic laboratory techniques/skills for B.Sc Life Sciences I year students from September 07-08, 2016, organized by DS Kothari Centre for Research and Innovation in Science Education and Department of Botany, Miranda House, University of Delhi, New Delhi.
- 11.Resource person in Bridge course on basic laboratory techniques/skills for B.Sc (H) I year students from September 05-06, 2016, organized by DS Kothari Centre for Research and Innovation in Science Education and Department of Botany, Miranda House, University of Delhi, New Delhi.
- 12. Resource person in Bridge course on basic laboratory techniques/skills for B.Sc Life Sciences I year students from October 26-30, 2015, organized by DS Kothari Centre for Research and Innovation in Science Education and Department of Botany, Miranda House, University of Delhi, New Delhi.
- 13. Resource person in Bridge course on basic laboratory techniques/skills for B.Sc (H) I year students from October 12-16, 2015, organized by DS Kothari Centre for Research and Innovation in Science Education and Department of Botany, Miranda House, University of Delhi, New Delhi.
- **14.**Mentor in the Inspire Internship Programme, December 15-20, 2013, jointly organized by Department of Science and Technology, Government of India and DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, New Delhi.
- **15.**Mentor in the Inspire Internship Programme, July 16-20, 2012, jointly organized by Department of Science and Technology, Government of India and DS Kothari Centre for Research and Innovation in Science Education, Miranda house, University of Delhi, New Delhi.
- 16. Resource person in the workshop for Senior Secondary School Teachers on Building Concepts in Science with Hands -on Activities, May 25-27, 2011, organized by DS Kothari Centre for Research and Innovation in Science Education, Miranda house, University of Delhi, New Delhi.

### **Educational Resource Material Developed:**

# Workshop manuals

- 1. Prepared workshop manual on "Molecular Cloning Techniques" A workshop for B.Sc. (H) Botany students from 30 January 2013 1 February 2013 under the DBT Star College Project and DS Kothari Centre for Research and Innovation in Science Education, Miranda house, University of Delhi, New Delhi.
- 2. Prepared workshop manual on "PCR and Blotting Techniques" A workshop for B.Sc. (H)

Botany students from 27-29 February, 2012 under the DBT Star College Project and DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, New Delhi.

- **3.** Prepared workshop manual on "Microscopy: Techniques and Applications -A workshop for Teachers" from 27-28 Sept. 2011 under the DBT Star College Project and DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, New Delhi.
- 4. Contributed two exercises to workshop manual for the workshop for Senior Secondary School Teachers on Building Concepts in Science with Hands -on Activities, May 25-27, 2011, organized by DS Kothari Centre for Research and Innovation in Science Education, Miranda house, University of Delhi, New Delhi.

## For Bridge Courses

- 1. Contributed an exercise on Use of pipettes and micropipettes. In: Lab Manual of the Bridge Course on Basic Laboratory Techniques for B.Sc. (Honours) Botany I Year Students, 05-06 August 2019; for B.Sc. Life Science I Year students, 08-09 August 2019, Department of Botany & D.S. Kothari Central Inter-disciplinary Research Facility, Miranda House, University of Delhi, Delhi, pp.32-34.
- 2. Contributed an exercise on Use of pipettes and micropipettes. In: Lab Manual of the Bridge Course on Basic Laboratory Techniques for B.Sc. (Honours) Botany I Year Students, 27-29 August 2018; for B.Sc. Life Science I Year students, 06-07 September 2018, D.S. Kothari Centre for Research and Innovation in Science Education & Department of Botany, Miranda House, University of Delhi, Delhi, pp.33-35.
- **3.** Contributed an exercise on Use of pipettes and micropipettes. In: Lab Manual of the Bridge Course on Basic Laboratory Techniques for B.Sc. (Honours) Botany I Year Students, 05-06 September 2017; for B.Sc. Life Science I Year students, 07-08 September 2017, D.S. Kothari Centre for Research and Innovation in Science Education & Department of Botany, Miranda House, University of Delhi, Delhi, pp.33-35.
- **4.** Contributed an exercise on Use of pipettes and micropipettes. In: Lab Manual of the Bridge Course on Basic Laboratory Techniques for B.Sc. (Honours) Botany I Year Students, 05-06 September 2016; for B.Sc. Life Science I Year students, 07-08 September 2016, D.S. Kothari Centre for Research and Innovation in Science Education & Department of Botany, Miranda House, University of Delhi, Delhi, pp. 29-31.
- **5.** Contributed an exercise on Use of pipettes and micropipettes. In: Lab Manual of the Bridge Course on Basic Laboratory Techniques for B.Sc. (Honours) Botany I Year Students, 12-16 October 2015; for B.Sc. Life Science I Year students, 26-30 October 2015, D.S. Kothari Centre for Research and Innovation in Science Education & Department of Botany, Miranda House, University of Delhi, Delhi.

For the INSPIRE Internship Programme, an initiative of the Department of Science and Technology, Government of India, held at Miranda House

- 1. Contributed an exercise on DNA: Close Encounters to workshop manual for the Inspire Internship Programme, December 18-22, 2017, jointly organized by Department of Science and Technology, Government of India and DS Kothari Centre for Research and Innovation in Science Education, Miranda house, University of Delhi, New Delhi.
- 2. Contributed an exercise on DNA: Close Encounters to workshop manual for the Inspire Internship Programme, December 15-20, 2013, jointly organized by Department of Science and Technology, Government of India and DS Kothari Centre for Research and Innovation in Science Education, Miranda house, University of Delhi, New Delhi.

**3.** Contributed an exercise on DNA: Close Encounters to workshop manual for the Inspire Internship Programme, July 16-20, 2012, jointly organized by Department of Science and Technology, Government of India and DS Kothari Centre for Research and Innovation in Science Education, Miranda house, University of Delhi, New Delhi.

### FDPs:

- 1. One week (Online) Interdisciplinary Faculty Development Programme on Environment Sustainability & Climate Change organised by Department of Botany, Miranda House in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi from 04-08 April 2022.
- 2. "Online Workshop (equivalent to Faculty Development Program) on Intellectual Property Right" organized by IQAC, Deen Dayal Upadhyaya College, University of Delhi, under the aegis of DBT Star College Scheme and MoE-Institution Innovation Council DDU Chapter from 09 to 13 February 2021.
- **3.** One-week online Faculty Development Programme on "E-content Generation and Managing Online Teaching" organized by Sri Aurobindo College (E), University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre (under PMMMNMTT), Hansraj College, University of Delhi from 11<sup>th</sup> December -17<sup>th</sup> December, 2020.
- **4.** National One Week Online Faculty Training Program "Pedagogical Training for Effective Online Teaching & Learning" organized by Deen Dayal Upadhyaya College, University of Delhi in association with K.T.H.M. College, Nashik, Maharashtra, from 03-10 August 2020.

# Workshops/Conferences/Symposium attended

# Workshops/Training Program attended:

- 1. Online training on "GIS Mapping for Disaster Mitigation and Risk Reduction" from 9 May-11 May 2023 organized by National Institute of Disaster Management, MHA, GOI in collaboration with Miranda House, University of Delhi.
- 2. Workshop on "Implementation of NEP 2020: Implications for Undergraduate Colleges" by Dr. Leena Gahane, Deputy Adviser, NAAC, held on Friday, 23 September 2022 organized under the aegis IQAC, Miranda House, University of Delhi.
- 3. Five weeks National Workshop on "Statistical Analysis of Biological Data" with A+ grade, organized by Department of Botany, Zakir Husain Delhi College, University of Delhi from January 17-February 21, 2022.
- 4. Online Capacity Building Workshop to understand the process of Collecting, Collating, Managing and Uploading the NAAC SSR data, Dr. Abha Deb Habib, Department of Physics, Miranda House, University of Delhi, 21 January 2022.
- 5. Online workshop on 'CRISPR-Mediated Plant Genome Editing' organized under the aegis of DBT Star College Scheme by Department of Botany, Shivaji College along with Global Plant Council, in collaboration with ICAR-National Rice Research Institute, Cuttack and Shree Guru Gobind Singh Tricentenary (SGT) University, Gurugram from September 27 to October 1, 2021.
- 6. Virtual Workshop on NAAC Accreditation: a Changed Perspective, Internal Quality Assurance Cell (IQAC) initiative in association with IQAC Cluster India, Miranda House, University of Delhi, 01 to 03 July 2021.
- 7. Online Webinar cum Workshop on "Development and Use of Molecular Markers for Crop Improvement" organized by Department of Zoology, Kirori Mal College, University of Delhi, under the aegis of IQAC and DBT Star College Scheme and hosted by Genomics-assisted Breeding Laboratory, National Institute of Plant Genome Research (NIPGR), New Delhi on 26 November 2020.
- 8. National Virtual Workshop on "Create Your Own Garden" from 05 to 07 November 2020

- organized by Garden Committee, Gargi College, University of Delhi.
- 9. International Online Workshop-cum-Webinar entitled "VISUAL NOTE-TAKING" held on 8th October 2020 organized by the Chemistry Department in collaboration with Internal Quality Assurance Cell, Zakir Husain Delhi College, University of Delhi.
- 10.Participated in a workshop "DNA Barcoding and Metagenomics" organized by Kirori Mal College, University of Delhi, from 19-20 September, 2019.
- 11.Participated in a workshop on "Catalyzing a Cultural Shift in Youth Entrepreneurship" held on November 9, 2017 at Miranda House organized by DSKC Miranda House, Delhi, in Collaboration with BIRAC, DBT.
- 12. Participated in a Faculty Development Workshop on "Ecology: Modern Perspectives" held on December 12-13, 2016 at Hansraj College, University of Delhi, Delhi-110007, organized by IQAC & Department of Botany, Hansraj College funded by DBT.
- 13. Participated in a workshop "Training the trainers: IPR workshop" held on August 10-11, 2016 at Ramjas College organized by MHRD IPR Chair & CIC-CSEC in collaboration with Ramjas College, University of Delhi.
- 14.Participated in a workshop "Training the trainers: IPR workshop" held on January 15, 2016 at Miranda House organized by Miranda House in collaboration with MHRD IPR Chair, University of Delhi.
- 15. Participated in a "Workshop on '*Drosophila*: an excellent model to study biology' from 20-21 September 2013, organized by *Drosophila* Stock Centre, Department of Zoology, University of Delhi, New Delhi.
- 16.Participated in a workshop on "Computational Biology-A workshop for Science Teachers" from 9-11 Jan. 2012 organized by DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, New Delhi.
- 17. Participated in a workshop on "Fundamentals of Bioinformatics" from September 26-30, 2011 organised by the Ramjas College, University of Delhi, New Delhi.
- 18.Participated in a National workshop on Evolutionary Perspectives in Modern Biology Teaching and Research, May 9-10, 2011, organized by Institute of Life Long Learning and Acharya Narendra Dev College, University of Delhi, New Delhi

# Conference/Symposium attended:

- Online Interdisciplinary International Conference on 'Science and Society' from 22 February 2022 to 25 February 2022 organized by Miranda House, University of Delhi under the aegis of IQAC, MH, sponsored by CSIR, ICSSR.
- 2. Virtual National conference on "Realms of Plant Diversity: Explorations with Novel Perspective", organized by Department of Botany under the aegis of Blossom, The Botanical Society, Maitreyi College, University of Delhi, on 24 August 2021.
- 3. Online International Conference Genetics and Genomics Technologies for Crop Improvement organized jointly by Department of Botany, Hansraj College & International Maize and Wheat 10 Improvement Center (CIMMYT), Mexico in collaboration with Mahatma Hansraj Faculty Development Centre (MHRFDC), Hansraj College, University of Delhi, 1-3 August, 2021.
- 4. One day International Symposium on Breast Cancer Awareness: Be Aware, Be Safe on 24 October 2020 jointly organized by National Service Scheme, Unnat Bharat Abhiyan cell, Synapse (The zoological society), Miranda House in association with Dr. B. R. Ambedekar Centre for Biomedical Research, University of Delhi.
- Ist National Conference on Application of Mathematical Tools in Social Sciences and Sciences (Online) held on October 17-18 2020 organized by Zakir Husain Delhi College, University of Delhi.

- 6. Online conference on "Environmental Pollutants and Cancer" on 20-21 May 2020, organized by School of Life Sciences, Central University of Himachal Pradesh, H.P.
- 7. Attended conclave on "Biodiversity for Everyone's Life" organized by Miranda House, University of Delhi, New Delhi on August, 31, 2018.
- 8. Attended Symposium on "Art of Grant Writing" held on January 5-6, 2017, at Miranda House, University of Delhi-110007, organized under DBT Star College Scheme & DSKC Miranda House.
- 9. National Symposium on "Environmental Contamination and Public Health", August 24, 2015, organized by Zakir Husain Delhi College, University of Delhi, Delhi-110002.
- 10. Participated in a "Symposium on Proteiomics", 16 March, 2015, organized by Department of Biochemistry, Sri Venkateswara College, University of Delhi, Delhi-110021.
- 11.30th All India Cell Biology Conference & Symposium on "Molecules to Compartments: Cross-Talks & Networks", February 2-4, 2007, Department of Zoology, University of Delhi, Delhi-110007.

#### **Seminars/Webinars Attended:**

- 1. Participated one day online workshop on Planning and Writing Grant Proposal under DBT Star College Scheme organized by Sri Tikaram Kanya Mahavidyalaya, Aligarh in collaboration with Banaras Hindu University, Varanasi, 17 February 2022.
- 2. Participated in international e-Symposium on 'Intellectual Property Rights in Education and Research' organized by Department of Zoology in association with the Department of Chemistry and Department of Commerce, Deen Dayal Upadhaya College under the aegis of Synapses, Science Foundation, Covalence and Community, 16 February 2022
- 3. IP Awareness/Training program under National Intellectual Property Awareness Mission, Government of India, organized by Miranda House, University of Delhi on 08 February 2022.
- 4. Career Counselling, organized by the Internal Quality Assurance Cell (IQAC), Miranda House, in collaboration with Antheia, the Botanical Society of Miranda House, University of Delhi, Resource Person: Dr. Jaishree Subramaniam, Marie Sklodowska Curie Fellow, Aarhus University, Denmark, 05 February 2022.
- 5. IP Awareness/Training program under National Intellectual Property Awareness Mission, Government of India, organized by Zakir Hussain Delhi College, University of Delhi on 12February 2022.
- 6. Webinar on "Environmental Conservation: The Contemporary Realities" by Mr. Kunal Satyarthi, Joint Secretary (Advisor), National Disaster Management Authority, Ministry of Home Affairs, Govt. of India, organized by Antheia, the Botanical Society, Miranda House, 19 January 2022.
- 7. Webinar on Rice Grain: A Staple Food for All by Dr. Pinky Agarwal, Staff Scientist IV, National Institute of Plant Genome Research, New Delhi, organized by Antheia, the Botanical Society, Miranda House, 29 October 2021.
- 8. International Seminar On "Ecosystem Restoration" held on June 5th 2021, Organized by Geo-Crusaders: The Environmental Society, P.G.D.A.V. College & Department of Environmental Studies, P.G.D.A.V. College, University of Delhi.
- 9. International Dialogue on Ecological Restoration held on June 5th 2021, organized by hosing organizations Dept. of EVS, ML Sukhadia University, Udaipur & Agrawal Kanya Mahavidyalaya, Gangapur City, Rajasthan along with 40 partner associates (Under the aegis of International Consortium).
- 10. National Webinar on "Cybercrimes: Prevention and Mitigation in the Digital Era" organized under by Short Term Courses Committee, Maitreyi College, University of Delhi on 22 October 2020.

- 11.International Webinar on "World Food Programme (WFP) A journey to the Nobel Peace Prize 2020" organized by Deen Dayal Upadhyaya College, University of Delhi, under the aegis of IQAC and DBT Star College Scheme on 20 October 2020.
- 12. National Webinar on "Wasteland Management Through Aromatic Plant Cultivation" organized by Eco Club-PRAKRITI, Maitreyi College, University of Delhi on 16 October 2020.
- 13. National webinar on "Restoring Biodiversity for Environment Sustainability & Seasonality of Gardens" organized by Kalindi College, University of Delhi, on 15 October 2020.
- 14. National Webinar on The Soil Story for Earth's Sake on 13 October 2020 organized by Hansraj College, University of Delhi.
- 15. Webinar on "National Education Policy & Open Digital Education" organized by Institute of Lifelong Learning, University of Delhi, from 12 to 13 October 2020.
- 16. Webinar on Journey of a Biologist: Exploring The Extreme on 9 October 2020 organized by Department of Botany, Deshbandhu College, University of Delhi.
- 17. National Webinar on "Developing a potent vaccine against the SARS-CoV2: Feasibility & Challenges" organized by Maitreyi College, University of Delhi, under the aegis of Science Setu on 07 October 2020.
- 18. National Webinar on "Cyber Hygiene for Virtual Teaching Platforms" organized by Department of Botany, Maitreyi College, University of Delhi, under the aegis of Internal Quality Assurance Cell (IQAC), on 03 October 2020.
- 19. Webinar on National Education Policy-2020 on 29 September 2020 organized by National Service Scheme and Unnat Bharat Abhiyan Society of Shaheed Rajguru College of Applied Sciences for Women, University of Delhi.
- 20. National Webinar on Let's Build Wellness-Than Treating Disease on 26 September 2020 organized by Srishti Chetna (Zoological Society), Hansraj College, University of Delhi.
- 21. National Webinar on "The Splendour of Orchids" held on September 25, 2020, organized by Department of Botany, Maitreyi College, University of Delhi.
- 22.International Webinar on Elderly Health and Health System Responses in the Recent Pandemic on 22 September 2020 organized by National Institute of Health and family Welfare, New Delhi.
- 23. National Webinar on "Global Ozone Day" held on 16 September 2020, organized by Atma Ram Sanatan Dharma College, University of Delhi.
- 24.Online National Webinar on "Clean Yamuna: A Gateway Towards Cancer Prevention" held on 14 September 2020, organized by Shaheed Rajguru College of Applied Sciences for Women, University of Delhi
- 25. National Webinar on "Intellectual Property Rights" held on 29 August 2020, organized by Sri Venkateshwara College, University of Delhi.
- 26. "Floriculture & Terrace Gardening" organized by Mahatma Gandhi Institute for Combating Climate Change, Delhi, on 07 August 2020.
- 27. Webinar on "Immunology of Covid-19" held on 5 August 2020, Organized by Department of Zoology, Gargi College, University of Delhi.
- **28**.International Webinar on Recent Trends in Systematic Biology on 28 July 2020 organized by Government Post Graduate College, Chamoli, Uttarakhand.
- 29. International Webinar series on 'Vector Borne Diseases: Current Scenario' on 30 June-1 July 2020, organised by Department of Zoology, Maitrey College, University of Delhi.
- 30. National Webinar on "Legume Diversity in India" on 30 June 2020, Organised by: Society for Ecological Research and Natural Resources Management (SERNRM).

- 31. Webinar on Role of Chromosome In Plant Taxonomy on 15 June 2020, organized by Department of Botany and IQAC, VIVA College of Arts, Science and Commerce, Vasai, Maharashtra.
- 32.International Webinar on COVID-19: TRUTHS AND MYTHS on 9th June 2020 Organized by Internal Quality Assurance Cell, Acharya Narendra Dev College, University of Delhi.
- 33. Two-day International webinar on "Prevalent Crisis Triggered by The Covid19 Pandemic and Its Appraisal" on 18-19th May 2020, jointly organized by Department of Chemistry & Biomedical Science, Bhaskaracharya College of Applied Sciences, University of Delhi.
- 34. Participated in a National Seminar on Current Trends in Plant Sciences, February 15-16, 2007, organized by Delhi University Botanical Society, Department of Botany, University of Delhi, New Delhi.
- 35. Participated in a National Seminar on Relevance of Botany in the conservation and Improvement of Plants, February 8-9, 2006, organized by Delhi University Botanical Society, Department of Botany, University of Delhi, New Delhi.
- 36. Participated in a National Seminar on Genetically Modified Organisms Biosafety Aspects, March 10-11, 2005, organized by Delhi University Botanical Society, Department of Botany, University of Delhi, New Delhi.