Dr. Rashmi Kapoor Mehrotra

Contact : +919535344665, +919899101335
E-Mail : kapoorashmi@gmail.com

OBJECTIVE

To obtain a position as a Botany Assistant Professor in a University, where I can utilize my knowledge and expertise to educate students and contribute to the advancement of the field. With passion for teaching and scientific research, I am committed to fostering academic growth and excellence while expanding knowledge in the field.

HIGHLIGHTS

- Currently associated with Miranda House College, University of Delhi as Assistant Professor on Guest Basis in Department of Botany.
- Served as Assistant Professor (Guest Faculty) in the Department of Botany at Deshbandhu College, University of Delhi.
- Associated with Botany Department at Jamia Hamdard, providing informal academic guidance and mentoring to M.Sc. Botany students.
- Taught Environmental Science to students of Bachelor of Occupational Therapy at Jamia Hamdard.
- Proficient in various plant tissue culture techniques, including micropropagation and media preparation.
- Skilled in contamination control systems, production, and varietal improvement programs.
- Experienced in conducting bioassays, laboratory bench studies, scientific report writing, and research lab operations and equipment maintenance.
- Mentored and supervised research trainees during their MSc research coursework.
- Excellent organizational and interpersonal skills with a strong commitment to learning and adopting new technologies.

EDUCATION

- **Ph.D. Botany**, Jamia Hamdard, New Delhi (2014)
- **B.Ed.,** Guru Gobind Singh Indraprastha University, Delhi (2008) – 74%
- **M.Sc. Botany**, Jamia Hamdard, New Delhi (2007) – 76.25%
- **B.Sc. (General)**, Sri Venkateshwara College, Delhi University, Delhi (2005) – 63%

RESEARCH EXPERIENCE

Ph.D. Botany (Plant Tissue Culture) **Nov' 2007 - July'2014**
"Tissue culture, Somatic Embryogenesis and Biochemical Studies in *Allium sativum* L."

Research Highlights:

- *In vitro* cultures of garlic established and morphogenic changes during different stages of development studied
- Biochemical changes in protein, amino acids, sugar content and activity of antioxidant enzymes (CAT, APX, SOD, GR) during different development stages in garlic cultures studied
- Production of bioactive compound (alliin) in response to various abiotic stresses studied using HPTLC
- Alliin production enhanced successfully and garlic varieties with higher medicinal and nutritive value developed
- Also served on research on antidiabetic potential of garlic leaf extract on alloxan-induced diabetic rats
- Mentored 3 research trainees for their MSc research coursework on garlic tissue culture

Research trainee - M.Sc. Botany (Plant Tissue Culture) **July'2006 - Jan'07**

"Role of Plant Growth Regulators on *In Vitro* Callusing, Somatic Embryogenesis and Regeneration in *Allium sativum* L."

PROFESSIONAL EXPERIENCE

- **Assistant Professor on Guest Basis (Guest Lecturer)** at Deshbandhu College, Delhi University (Jan'2025 – May'2025) - Instructed B.Sc. (Hons.) Botany students in **Economic Botany**, **Skill Enhancement Course on Nursery, Gardening, and Landscaping**, practical sessions for **General Elective Course on Ethnobotany**, core courses on **Mycology** and **Plant Anatomy**, and **Value Added Course** on **Ayurveda and Nutrition**
- **Freelancer** – Content Development, Bengaluru (Sept'2015 - April'2020)
- **Visiting Faculty for Environmental Studies,** Jamia Hamdard University (Aug' 2009 - Dec' 2009) - Delivered lectures and facilitated discussions on environmental studies for Bachelor of Occupational Therapy (BOT) students.

IT SKILLS

- Project Management and Team Collaboration
- MS Office (Word, Excel, PowerPoint), Adobe NitroPro
- Work Management Platforms: Asana

PUBLICATIONS

1. **Kapoor, R.**, Mahmooduzzafar, Mujib, A., Nasim, S.A. (2012). Selenium treatment alters biochemical activity in various tissues and organs of *Allium sativum* L. under *in vitro* conditions. ***In vitro* Cellular and Developmental Biology - Plant**, 48: 411-416.

2. **Kapoor, R.**, Nasim, S.A., Mahmooduzzafar, Mujib, A. (2011). Establishment of efficient method for callus culture and shoot regeneration of local Indian garlic (var. Yamuna Safed). **Journal of Ecobiotechnology**, 3(12): 14-17.

3. Nasim, S.A., Dhir, B., **Kapoor, R.**, Samar, F., Mahmooduzzafar, Mujib, A. (2010). Alliin production in various tissues and organs of Allium sativum grown under normal and sulphur-supplemented in vitro conditions. **Plant Cell, Tissue and Organ Culture,** 101: 59-63.

4. Nasim, S.A., Mujib, A., **Kapoor, R.**, Samar, F., Junaid, A., Mahmooduzzafar. (2010). Somatic embryogenesis in *Allium sativum* L. (cv. Yamuna Safed 3): Improving embryo maturation and germination with PGRs and carbohydrates. **Anales De biologia**, 32: 1-7.

5. Nasim, S.A., Dhir, B., **Kapoor, R.**, Samar, F., Mahmooduzzafar, Mujib, A. (2010). Alliin obtained from leaf extract of garlic grown under *in situ* conditions possess higher therapeutic potency for treating diabetic rats. **Pharmaceutical Biology**, 49(4): 416-421.

6. Nasim, S.A., Mujib, A., **Kapoor, R.**, Samar, F., Junaid, A., Mahmooduzzafar. (2009). Improved alliin yield in somatic embryos of *Allium sativum* L. (cv. Yamuna safed) as analyzed by HPTLC. **Acta Biologica Hungarica,** 60 (4): 441-454.

7. Nasim, S.A., Dhir, B., Samar, F., **Kapoor, R.**, Mahmooduzzafar, Mujib, A. (2009). Sulphur treatment alters the therapeutic potency of alliin obtained from garlic leaf extract. **Food and Chemical Toxicology**, 47: 888–892.

8. Nasim, S.A., Junaid, A., **Kapoor, R.**, Khan, S.A. (2010). Secondary metabolites production through biotechnological intervention: A Review. **Emirates Journal of Food and Agriculture**, 22 (3): 147-161.

9. Siddiqui, Z.H., Mujib, A., Samar, F., **Kapoor, R.** (2009). Somatic Embryogenesis and Genetic Improvement of Selected Ornamentals (*Chrysanthemum, Euphorbia, Caladium and Cyclamen)* – A Review. **Floriculture and Ornamental Biotechnology**, 3(1): 1-9.

SEMINARS/CONFERENCES ATTENDED

1. Samar, F., Siddiqui, Z.H., **Kapoor, R.**, Mujib, A. (2009). Cryopreservation of embryogenic cell suspensions: influence of preculture, pretreatment and freezing conditions and subsequent plant regeneration in *Catharanthus roseus* L. (G) Don. National Symp. on "Plant propagation, conservation, modification and characterization", PTCA, April 3-4, 2009, IHBT (CSIR), Palampur. p. 40-41. (Abstr.)

2. **Kapoor, R**., Nasim, S.A., Samar, F., Junaid, A., Mahmooduzzafar, Mujib, A. (2008). Callus culture and shoot regeneration in *Allium sativum* L. cv. Yamuna Safed 3. National Symp. on "Environmental Stress and Bioresource Management", Nov. 20-22, 2008, Hamdard University, New Delhi. p. 29. (Abstr.)

3. **Kapoor, R**. (2008). National Seminar on "Effect of Present Environment on Adolescents: What to do?", Feb. 2, 2008, Amity Institute of Education, New Delhi.

PERSONAL DETAILS

Name:	Rashmi Kapoor Mehrotra
Date of Birth:	13, Nov. 1984
Marital Status:	Married
Nationality:	Indian
Languages Known:	Hindi, English
Passport:	Valid up to 2032
Address:	G-1103, Golf Avenue 1, Sector – 75, Noida, UP - 201304

REFERENCES

Dr. Mahmooduzzafar

Head of Department
Department of Botany
Jamia Hamdard, New Delhi
Phone: +91 9811860787
Email: mahmooduzzafar@gmail.com

Dr. Madhu Rani

Teacher-In Charge
Department of Botany
Deshbandhu College, Delhi University
Phone: +91 6395361936
Email: mrani1@db.du.ac.in