

Swati Verma

Assistant Professor

Specialization: Plant Molecular Biology

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Ongoing Projects:

- 'Transcriptome and metabolome profiling to reveal the key components of bioactive metabolite synthesis in the underutilized herb *Dicliptera bupleuroides*' funded by 'DST-ANRF, Govt. of India' with a budget of 56 lac (Principal Investigator)

Important Research Publications

- Verma S, Dubey N, Mishra V, Kumar S, Sharma R, Sharma S, Sarkar A K, Thakur A K (2025) Functional genomics of salt and drought stress tolerance in the temperate crop apple (*Malus domestica*). *Journal of Plant Growth Regulation* 43: 3941-3957
- Verma S, Dubey N, Dhugga K S, Gill K S, Randhawa G S (2025) Cluster bean: From garnering, industrial importance to molecular research interventions for the improvement of commercially viable traits. *South African Journal of Botany* 178: 307-317
- Verma S, Dhugga K S, Gill K S, Randhawa G S (2024) Downregulation of galactomannan galactosyltransferase in *Cyamopsis tetragonoloba*. *Plant Cell Tissue and Organ Culture* 159: 223-231
- Chaudhary A, Thakur R, Roy T, Yadav K, Verma S, Singh K (2024) Chronological events unfolding the vegetative and floral phenology of apical bud in *Crocus sativus*. *Protoplasma* 262: 313-330
- Verma S, Dubey N, Singh KH, Parmar N, Singh L, Sharma D, Rana D, Thakur K, Vaidya D and Thakur AK (2023) Utilization of crop wild relatives for biotic and abiotic stress management in Indian mustard [*Brassica juncea* (L.) Czern. Coss.]. *Frontiers in Plant Science* doi: 10.3389/fpls.2023.1277922. PMID: 37954999; PMCID: PMC10634535
- Verma S, Narwal P, Kumari P, Kisku A V, Gahlot P, Mittal N, Negi N P, Kumar D (2022) Calcium signaling in coordinating plant development, circadian oscillations and environmental stress responses in plants. *Environmental and Experimental Botany* 201: doi.org/10.1016/j.envexpbot. 2022.104935
- Verma S, Pareek S, Negi N, Kumar D (2022) Auxin response factors in plant adaptation to drought and salinity stress. *Physiologia Plantarum* 174(3): e13714
- Verma S, Gautam V, Sarkar AK (2019) Improved laser capture microdissection (LCM-based method for isolation of RNA including miRNA and expression analysis in woody apple bud meristem. *Planta* 249(6): 2015-2020
- Kumar A, Gautam V, Kumar P, Mukherjee S, Verma S, Sarkar AK (2019) Identification and co- evolution pattern of stem cell regulator miR394s and their targets among diverse plant species. *BMC Evolutionary Biology*. 19: 1471-2148
- Singh A, Gautam V, Singh S, Sarkar Das S, Verma S, Mishra V, Mukherjee S, Sarkar AK (2018) Plant small RNAs: advancements in the understanding of biogenesis and role in plant development. *Planta*. 248: 545-558

Awards & Recognitions

- Department of Science and Technology '(DST)-AWSAR Award' (2019) for Best Research Story as National-Post Doctoral Fellow at NIPGR, New Delhi
- Department of Science and Technology (DST), Govt. of India-Science and Engineering Research Board (SERB), 'National-Post Doctoral Fellowship' (N-PDF) during May 2017-2019 (Principal Investigator of Research Project with an funding of INR 22,00000/-)
- 'Young Women Scientist Award' at 'International Conference on Current Innovations and Technological Advances in Agriculture and Allied Sciences (CITAAS-2024)' sponsored by Indian Council of Agricultural Research (ICAR) organized at 'Guru Kashi University, Bathinda, Punjab' from August 29 to 31, 2024
- 'Top Cited Author' '*Physiologia Plantarum*' (Wiley Online Library) during 2022-2024, conferred by 'Scandivian Society for Plant Physiology' Scandivia, Europe
- 'Robert Fraley Inspiring Women in Education and Research' award in 'Agricultural Biotechnology' in 'International Symposium on Public Service through Education'.
- 'Dr. Harbhajan Singh Memorial Award'-2014 for Best Research Paper by Indian Society of Vegetable Sciences, India
- Department of Science and Technology '(DST) Govt. of India, 'Foreign Travel Grant' (Feb, 2014)
- Department of Biotechnology '(DBT) Govt. of India, 'Foreign Travel Grant' 2014
- Council for Science and Industrial Research '(CSIR)-JRF', June 2009.
- CSIR-National Eligibility Test (NET) December, 2009
- 'Best Poster Presentation' in National Symposium on Biodiversity and Food Security organized by Indian Institute of Pulses Research (IIPR) Kanpur, India from December 10-11, 2011
- 'Best Oral Presentation', 'National Conference on 'Indigenous Knowledge System for Sustainable Future: A Roadmap to Viksit Bharat-2047' organized by 'Dr. Y. S. Parmar University of Horticulture & Forestry Nauni, Solan at 'College of Horticulture & Forestry Thunag', from February 13-14, 2025
- 'Best Oral Presentation', 'International Conference on Current Innovations and Technological Advances in Agriculture and Allied Sciences (CITAAS-2024)' organized by 'Indian Council of Agricultural Research (ICAR)' at 'Guru Kashi University, Talwandi Sabo, Bathinda, Punjab' from August 29 to 31, 2024.
- Chairperson, Young Scientist Session III, 'National Symposium on Molecular Intricacies of Plant Associated Microorganisms (MIPAM)' organized by 'Indian Institute of Technology (IIT) Mandi' from March 7 to 8, 2025.
- Chairperson Technical Session & Keynote Speaker 'International Conference on Advances in Science and Technology (ICAST-2025)' organized by 'G B Pant Institute of Engineering and Technology (GBPIET) Pauri Garhwal' from June 23 to 25, 2025.
- Chairperson Technical session, 'International Conference-RTAAS-2024' organized by 'Shri Guru Ram Rai University Dehradun' from November 13-14, 2024
- Keynote Speaker, at '13th International Conference on Agriculture, Horticulture, Forestry & Allied Sciences for Sustainable Himalayan Ecosystem (ICAHFAS-2026)' organized by ICFRE-Himalayan Forest Research Institute (HFRI) Shimla from March 18, 2026 to March 20, 2026