

# CURRICULUM VITAE

## Dr. Latif Ahmad Peer

### Associate Professor

Department of Botany  
University of Kashmir  
Hazratbal, Srinagar – 190006 Jammu & Kashmir, India

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## PROFESSIONAL SUMMARY

Distinguished academic and researcher with over 18 years of dedicated service in plant sciences. Expertise in plant stress physiology, climate-smart agriculture, reproductive biology, and Himalayan ethnobotany. A committed mentor, prolific publisher in high-impact international journals, and an active contributor to university administration and academic community service.

## ACADEMIC APPOINTMENTS

### University of Kashmir, Department of Botany, Srinagar

- **Associate Professor** | August 17, 2022 – Present
- **Assistant Professor (Stage III)** | February 15, 2018 – February 15, 2021
- **Assistant Professor (Stage II)** | February 15, 2013 – February 15, 2018
- **Assistant Professor (Stage I)** | February 15, 2007 – February 15, 2013

*Responsibilities:* Research, Postgraduate Teaching, Student Supervision, Academic Administration.

### Contractual Lecturer Positions

- Govt. Degree College Sopore | 2005 – 2007
- Govt. Degree College Baramulla | 2005-2006
- Govt. College for Women, Baramulla | 2004 – 2005

*Responsibilities:* Undergraduate Teaching.

## EDUCATION

- **Ph.D. in Botany** (2022) University of Kashmir, Srinagar. Thesis: "*Morphogenetic assessment in Zea mays L. with reference to climate smart agriculture.*"
- **M.Sc. in Botany** (2003) | University of Kashmir, Srinagar | 71.75%
- **B.Sc. (Biology & Chemistry)** (2001) | Degree College Sopore, Baramulla
- **Senior Secondary (12th)** (1998) | JKBOSE | (Physics, Chemistry, Biology)
- **Secondary (10th)** (1996) | JKBOSE

## RESEARCH PUBLICATIONS

### Peer-Reviewed Journal Articles (Published)

1. **Peer, L.A.\***, Fayaz, S., Rather, M.A., Lone, A.A., Dar, Z.A., Mir, B.A. (2025). Integrative Strategies for Enhancing Drought Tolerance in Common Beans: Physiological, Biochemical, and Genetic Perspectives. *Journal of Plant Growth Regulation*. <https://doi.org/10.1007/s00344-025-11867-5>. **(IF: 4.4)**
2. **Peer, L.A.\***, Mir, B.A. (2025). Genetic and Molecular Mechanisms of Plant Reproduction in Response to Climate Change. *Botanical Reviews*, 91, 331–385. <https://doi.org/10.1007/s12229-025-09318-7>. **(IF: 3.0)**
3. Chauhan, S., Chatterjee, D., **Peer, L.A.\***, Mir, B.A., Babbar, S. (2025). Salicylic Acid-Triggered Flowering in *Lemna gibba*: Evidence of a Stress-Mediated Pathway via NO and ROS. *Journal of Plant Biochemistry and Biotechnology*. <https://doi.org/10.1007/s13562-025-01004-4>. **(IF: 1.5)**
4. Chauhan, S., Chatterjee, D., **Peer, L.A.\***, Mir, B.A., Babbar, S. (2025). Nitric Oxide and Cyanide Enhance Flowering in *Lemna gibba* through a Stress-Mediated Pathway under Inductive Conditions. *Journal of Plant Growth Regulation*, 44, 6166–6181. <https://doi.org/10.1007/s00344-025-11820-6>. **(IF: 4.4)**
5. Chauhan, S., Chatterjee, D., **Peer, L.A.\***, Mir, B.A., Babbar, S. (2025). Carbon monoxide promotes flowering in *Lemna gibba* via a nitric oxide-dependent oxidative stress pathway. *Planta*, 262, 47. <https://doi.org/10.1007/s00425-025-04775-1>. **(IF: 3.8)**
6. Mansoor, A., Mir, B.A., Bano, M., **Peer, L.A.\*** (2025). Ethnobotanical exploration of medicinal plants in Veshew range of Himalayan region of Kulgam, Jammu & Kashmir, India: diversity, utilization, and health significance. *Ethnobotany Research and Applications*, 31, 1–21.
7. Kalra, C., **Peer, L.A.\***, Zehra, D., Mir, B.A., Babbar, S.B. (2025). Nitric Oxide Enhances In-Vitro Caulogenesis in *Linum usitatissimum* by Facilitating Iron Mobilization. *Plant Cell, Tissue and Organ Culture*, 162, 17. <https://doi.org/10.1007/s11240-025-03138-8>. **(IF: 2.4)**
8. **Peer, L.A.\***, Mir, B.A. (2025). Molecular Mechanisms and Genetic Regulation of Self-Incompatibility in Flowering Plants: Implications for Crop Improvement and Evolutionary Biology. *Plant Molecular Biology*, 115(4), 76. <http://dx.doi.org/10.1007/s11103-025-01610-9>. **(IF: 3.8)**

9. **Peer, L.A.\***, Wani, A.A., Lone, A.A., Dar, Z.A., Mir, B.A. (2025). Drought Stress Memory in Maize: Understanding and Harnessing the Past for Future Resilience. *Plant Cell Reports*, 44(5), 101. doi: 10.1007/s00299-025-03494-x. **(IF: 4.5)**
10. Fayaz, S., Rather, M.A., Lone, A.A., Dar Z.A., Mir, B.A., **Peer, L.A.\*** (2025). Genetic Variability and Trait-Based Selection in Common Bean (*Phaseolus vulgaris* L.) Germplasm Lines from the Kashmir, India. *Current Agricultural Research Journal*, 13(2). <http://dx.doi.org/10.12944/CARJ.13.2.13>.
11. Fayaz, S., Rather, M.A., Lone, A.A., Dar Z.A., Mir, B.A., **Peer, L.A.\*** (2025). Morphological Characterization and Phenotypic Variability of Common Bean (*Phaseolus vulgaris* L.) Germplasm Lines from Kashmir. *Current Agricultural Research Journal*, 13(1). <http://dx.doi.org/10.12944/CARJ.13.1.22>.
12. Rather, M.A., Lone, A.A., Dar Z.A., Fayaz, S., Mir, B.A., **Peer, L.A.\*** (2024). Comprehensive Morphological Characterization of Cowpea (*Vigna unguiculata* (L.) Walp.) Genotypes for Enhanced Breeding Programs in Jammu and Kashmir. *Current Agricultural Research Journal*, 12(3). <http://dx.doi.org/10.12944/CARJ.12.3.20>.
13. Aaqib, M., **Peer, L.A.\*** (2024). Medicinal plants of the Himalayan Tral region of Kashmir, India: An ethnobotanical study of their diversity, use patterns, and health implications. *Ethnobotany Research and Applications*, 27, 1-19.
14. **Peer, L.A.\***, Bhat, M.Y., Lone, A.A. et al. (2024). Genetic, molecular and physiological crosstalk during drought tolerance in maize (*Zea mays*): pathways to resilient agriculture. *Planta* 260, 81. <https://doi.org/10.1007/s00425-024-04517-9>. **(IF: 3.8)**
15. **Peer, L.A.\*** (2024). Harnessing Phytohormone Dynamics to Fortify Crop Resilience Against Drought: A Comprehensive Review. *Vegetos*. <https://doi.org/10.1007/s42535-024-00901-8>.
16. **Peer, L.A.\*** (2024). Phytochemistry, pharmacological activities, and ethnomedicinal importance of the highly valuable endangered plant, *Podophyllum hexandrum*; a comprehensive review. *International Journal of Biology, Pharmacy and Allied Sciences*, 13(2), 951-964.
17. Mehdi, S., **Peer, L.A.\*** (2023). Comparative study of some important reproductive features in two populations of *Podophyllum hexandrum* Royle, an endangered plant of Kashmir Himalaya. *Advances in BioResearch*, 14(6), 24-29.
18. Khazir, J., Thakur, R.K., Ahmed, S., Babbar, S., Mir, S.A., Shafi, N., Tonfack, L.B., Rajpal, V.R, Maqbool, T, Mir, B.A., **Peer, L.A.\*** (2024). Repurposing of Plant-based antiviral molecules for Covid-19 treatment. *Current Topics in Medicinal Chemistry*, 24(7), 614-633. **(IF: 2.9)**
19. Nisa, M., Wani, A.H., Hassan, S., **Peer, L.A.**, Bhat, M.Y. (2023). Myco-contaminants associated with post-harvest deterioration of dried apricot fruits in Kashmir valley. *J Mycol Pl Pathol*, 53(1), 12-19.
20. Hussain, M., Kr Thakur, R., Khazir, J., Ahmed, S., Khan, M.I., Rahi, P., **Peer, L.A.**, et al. (2023). Traditional Uses, Phytochemistry, Pharmacology, and Toxicology of the Genus *Artemisia* L. (Asteraceae): A High-value Medicinal Plant. *Current Topics in Medicinal Chemistry*, 24(4), 301-342. **(IF: 2.9)**
21. **Peer, L.A.\***, Dar, Z.A., Lone, A.A., Bhat, M.Y. (2023). Abiotic stress tolerance in common beans; a review. *International Journal of Biology, Pharmacy and Allied Sciences*, 12(11), 5289-5303.

22. Hussain, M., Ahmed, S., Ibrahim, M., Khazir, J., Ahmad, S.S., Thakur, R.K., Bhardwaj, R., Gandhi, S.G., **Peer, L.A.**, et al. (2023). Phenolic content, antioxidant and allelopathic potential of *Artemisia brevifolia* Wall. ex Dc. across the elevations of Western Himalayan region of Ladakh. *South African Journal of Botany*, 157, 508-519. <https://doi.org/10.1016/j.sajb.2023.04.039> (IF: 2.7)
23. **Peer, L.A.\***, Dar, Z.A., Lone, A.A., Bhat, M.Y. (2022). Drought stress-induced impact on morpho-physiological traits in maize landraces of Kashmir. *Agricultural Science Digest*, 43(6), 758-766. doi:10.18805/ag.D-5593.\
24. **Peer, L.A.\***, Dar, Z.A., Lone, A.A., Bhat, M.Y. (2022). Genetic diversity analysis in maize landraces under temperate ecology. *Agricultural Science Digest*, 42(5), 541-547. doi:10.18805/ag.D-5490.
25. **Peer, L.A.\***, Dar, Z.A., Lone, A.A., Bhat, M.Y. (2021). DUS characterization of local maize landraces of Kashmir Valley. *International Journal of Botany Studies*, 6(4), 05-08.
26. **Peer, L.A.\***, Bhat, M.Y., Ahmad, N., Mir, B.A. (2021). Floral induction pathways: decision making and determination in plants to flower- A comprehensive review. *Journal of Applied Biology and Biotechnology*, 9(2), 7-17.
27. Jan, Y., **Peer, L.A.\*** (2021). Papaver somniferum: Phytochemistry, biological activity and toxicology; a review. *International Journal of Botany Studies*, 6(4), 753-757.
28. **Peer, L.A.\***, Dar, Z.A., Lone, A.A., Bhat, M.Y. (2020). Maize characterization: from genotyping to high throughput phenotyping. *Journal of Plant Science Research*, 37(1), 121-131.
29. Ahmad, N., Bhat, M.Y., Wani, A.H., **Peer, L.A.** (2020). Rhizosphere Mycobiome Diversity of Medicinal Plants: A Review. *Journal of Plant Science Research*, 37(1), 175-187.
30. **Peer, L.A.\*** (2020). Phytochemistry, biological activity and medicinal importance of *Urtica dioica*: A Review. *International Journal of Botany Studies*, 5(6), 442-448.
31. **Peer, L.A.\***, Bhat, M.Y., & Wani, A.H. (2021). Salt Stress Induced Plant Physio-biochemical and Molecular Responses: A Review. *Journal of Stress Physiology & Biochemistry*, 17(1), 54-81.
32. **Peer, L.A.\***, Dar, Z.A., Lone, A.A., Bhat, M.Y., & Ahmad, N. (2020). High temperature triggered plant responses from the whole plant to the cellular level. *Plant Physiology Reports*, 25, 611-626. (IF: 1.6)
33. Wani, A.H., Boda, R.H., & **Peer, L.A.** (2010). Potential antioxidant activity of some mushrooms growing in Kashmir Valley. *Mycopath*, 8(2), 71-75.
34. Wani, A.H., Wani, M.A., & **Peer, L.A.** (2010). Effect of plant growth promoting *Bacillus* species on the growth of blue pine seedlings. *Journal of Mycology and Plant Pathology*, 40(4), 564.

### Manuscripts Under Review / Communicated

1. **Peer, L.A.\***. The Epigenetic Set-Point: Metabolic and Redox Gating of Developmental Transitions in Plants. *New Phytologist*. (IF: 8.1)
2. Quyoom, B., **Peer, L.A.\***. The Epigenetic Engine: Transgenerational Plasticity as a Driver of Plant Climate Resilience and Adaptation. *Journal of Ecology*. (IF: 6.3)
3. **Peer, L.A.\***. The Heme-Redox Checkpoint: Integrating Metabolic Status with Stress Signaling via the CO-NO-ROS-H<sub>2</sub>S Network. *Physiologia Plantarum*. (IF: 3.6)

4. Quyoom, B., **Peer, L.A.\***. Synthetic Epigenetic Memory: Engineering Transgenerational Climate Resilience in Crops. *Journal of Plant Growth Regulation*. **(IF: 4.4)**
5. Quyoom, B., Rather, T.B., Mir, B.A., **Peer, L.A.\***. An Integrated Hierarchical Network Model of High-Altitude Adaptation in Artemisia. *Alpine Botany*. **(IF: 3.0)**
6. Quyoom, B., **Peer, L.A.\***. The CRISPR-dCas9 Epigenetic Toolbox: Programming Gene Expression for Climate Resilient Crops. *Planta*. **(IF: 3.8)**
7. Quyoom, B., Rather, T.B., Mir, B.A., **Peer, L.A.\***. The Artemisia Altitudinal Stress Syndrome: A Hierarchical Network for Survival in Extreme Environments. *Plant Cell Reports*. **(IF: 4.5)**
8. Chauhan, S., Chatterjee, D., **Peer, L.A.\***, Mir, B.A., Babbar, S. (2025). Dose-Dependent Effects of Nitric Oxide on Flowering in Arabidopsis thaliana: Correlated Changes in FLC, LFY and CO Expression. *Plant Reproduction*. **(IF: 3.0)**
9. **Peer, L.A.\***, Wani, A.A., Lone, A.A., Dar, Z.A., Mir, B.A. (2025). Explainable Artificial Intelligence for Decoding Drought Tolerance Mechanisms in Crops: A Maize-Centric Framework Bridging Prediction and Biology, A Review. *Discover Plants*.
10. **Peer, L.A.\***, Wani, A.A., Lone, A.A., Dar, Z.A., Mir, B.A. (2025). Integrating Genomic, Microbial, and Agronomic Innovations for Climate-Resilient Maize Systems. *Agricultural Research*. **(IF: 1.1)**
11. Kalra, C., **Peer, L.A.\***, Zehra, D., Mir, B.A., Babbar, S.B. (2025). Nitrate reductase is the dominant enzymatic source of nitric oxide during shoot regeneration in flax (*Linum usitatissimum*). *Nitric Oxide*. **(IF: 3.2)**

## BOOKS & BOOK CHAPTERS

1. **Peer, L.A.\*** (2013). *Instant Notes in Gymnosperms*. Mamta Publications. ISBN 8192371314.
2. **Peer, L.A.\*** (2013). Self-incompatibility Patterns and Signal Transduction. In K. Hakeem, R. Rehman, I. Tahir (Eds.), *Plant Signalling: Understanding the Molecular Crosstalk* (pp.326-343). Springer, New Delhi.
3. Malik, S.M., Bhat, M.Y., Wani, A.H., Nisa, A., **Peer, L.A.** (2023). Mechanism of Actions of Antidiabetic Mushrooms. In Azeem, U., and Hakeem K. (Eds.), *Therapeutic Mushrooms for Diabetes Mellitus, Current Evidences and Future Scope* (pp. 109-134). APP Press, Florida, USA.
4. **Peer, L.A.**, Bhat, M.Y., Lone, A.A., Dar, Z.A., Rather, M.A., & Fayaz, S. Cowpea Wild Relatives for Cowpea Sustainability through Introgression Breeding. In *Legume Crop Wild Relatives* (pp. 115-130). CRC Press.
5. **Peer, L.A.\***, Mir, B.A., Rather, T.B. (2024 – *Accepted*). Gene Editing and Biotechnological Approaches for Improving Salt Tolerance in Crops. Taylor and Francis.

## RESEARCH SUPERVISION

### Doctoral (Ph.D.) Students

- **Awarded:** Muneeb Ahmad Rather (Awarded: 13-07-2025)
- **Thesis Submitted:** Saima Fayaz

- **Currently Supervising (Registered):** Maqsooma Banoo (2023), Shahar Banoo (2024), Rumiya Rashid (2024), Bushra Quyoom (2025).
- **Advisory Committee Member:** Devanshi Mehta (SKUAST-K, Ongoing).

### Master's (M.Sc.) Dissertations Guided

Supervised 25+ M.Sc. students (2019-2024) on topics including Reproductive Biology, Ethnobotany, and Plant Stress Physiology. (Complete list available in original data).

## ACADEMIC LEADERSHIP & ADMINISTRATIVE ROLES

### University of Kashmir, Department of Botany

- Academic Counsellor
- Career Counsellor
- Incharge, Departmental Auditorium
- Incharge, Departmental Computer Lab
- Member, UG and PG Board of Studies
- Member, Committee for Center for Biodiversity and Taxonomy (CBT)
- Member, Departmental Research Committee
- Member, Admission Committee

### Conference/Workshop Organization

- **Organizer,** Regional Young Investigators' Meeting (RYIM-2023), Theme: "Igniting Curiosity & Training Young Minds of J&K for Sustainable Tomorrow," University of Kashmir (Sep 19-20, 2023).
- **Organizer,** Crafting Your Career Workshop (CYC), during RYIM-2023, University of Kashmir (Nov 21, 2023).

## INVITED LECTURES & TALKS

1. "Climate change and impact on plant reproduction," National Seminar on Climate Change and Natural Disasters, North Campus, University of Kashmir (July 11, 2024).
2. "Integrating AI tools in Academic Writing: Enhancing Research, Efficiency and Creativity," Regional Young Investigators Meeting (RYIM)-Srinagar (Sep 19-21, 2023).
3. "Reproductive Biology," 3-Day Capacity Building Workshop in Botany, SCERT-KD, Bemina, Srinagar (Jan 23-25, 2023).
4. "Climate Smart Agriculture for Sustainable Future," One-Day Seminar on Ecological Restoration, HKM GDC Eidgah, Srinagar (June 5, 2023).
5. "Maize crop landraces, a repository of important genes for sustainable development," National Conference on Recent Advances in AI and Deep Learning, Satellite Campus Kargil, UoK (Oct 3-5, 2019).

## CONFERENCES & PAPERS PRESENTED

1. Peer, L.A., & Bhat, M.Y. (2022). Maize landrace genetic diversity from Kashmir Valley. *Int. Conf. on Sustainable Utilization of Bioresources*, Univ. of Kerala.
2. Peer, L.A. (2022). Simplified selection process of elite genotypes based on maize landrace categorization. *Int. Conf. on Advanced Biology*, Univ. of Kerala.
3. Peer, L.A. (2022). Evaluation and Classification of Drought Tolerant Maize Landraces. *National Seminar (RASTAS, 2022)*, Central Univ. of Kashmir.
4. Peer, L.A. (2022). Drought stress evaluation in maize for climate-smart agriculture. *National Symposium*, SKUAST-K, Srinagar.
5. Peer, L.A. (2020). Drought assessment in maize for climate-smart agriculture. \*Int. Plant Physiology Virtual Conference (IPPVC-2020)\*, SKUAST-J & ISPP.

## PEER REVIEW ACTIVITIES (2024-2025)

- BMC Plant Biology
- Scientific Reports (Nature Portfolio)
- GM Crops & Food
- PLOS ONE
- Vegetos
- Tropical Plant Biology
- Journal of Applied Biology & Biotechnology
- Functional & Integrative Genomics

## TEACHING EXPERIENCE

**Postgraduate Courses Taught (University of Kashmir):** Plant Resource Utilization, Non-Flowering Vascular Plants, Advanced Developmental Biology, Seed Technology, Medicinal Plants and Herbal Resource Management, Basics in Plant Biology, Stress Biology, Economic Botany, Basics in Life Sciences, Sustainable Crop Management, Plant Resource Management.

## PROFESSIONAL DEVELOPMENT & SPECIALIZED TRAINING

### UGC-Sponsored Faculty Development

- **Refresher Course in Science:** UGC-HRDC, University of Kashmir (Dec 2019)
- **Refresher Course in Bio-Sciences:** UGC-HRDC, University of Kashmir (May 2017)
- **Refresher Course:** Academic Staff College, University of Kashmir (Jan 2012)
- **General Orientation Course:** Academic Staff College, University of Kashmir (Feb 2007)

## Advanced Technical Training

- **Proteomics:** Global CE-MS Symposium, Discovery applications of CE-MS, SCIEX, USA (*April 2022*)
- **Plant Taxonomy:** Ministry of Environment (MoEFCC) sponsored workshop on Classical & Modern Methods (*March 2020*)
- **Artificial Intelligence:** Innovations in AI, Machine Learning and Deep Learning, Satellite Campus Kargil (*Oct 2019*)

## Other Workshops & Conferences

- **Workshops:** Attended 20+ short-term courses on MOOCs/E-Content Development, Research Methodology, Plagiarism (Turnitin), and Scientific Writing (Clarivate Analytics).
- **Conferences:** Participated in various national/international seminars including the *13th J&K Science Congress* and *International Plant Physiology Conference*.

## PERSONAL DETAILS

- **Date of Birth:** April 1, 1981
- **Nationality:** Indian
- **Gender:** Male
- **Marital Status:** Married
- **Permanent Address:** Warpora, Sopore, Baramulla, Jammu & Kashmir – 193201

Sd/-Dr. Latif Ahmad Peer