CURRICULUM VITAE

Mohammad Ali
Associate Professor (Tenured)
Department of Biotechnology, Genetics, Forensic and Microbiology,
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Education

- **Ph.D. (Biotechnology):** Quaid-i-Azam University Islamabad, Pakistan (2015)
- **M.Phil. (Biotechnology):** Quaid-i-Azam University Islamabad, Pakistan (2010)
- **B.S. (Biotechnology):** University of Malakand, Pakistan (2007)

Experience/Training

- **Associate Professor,** Department of Biotechnology, Genetics, Forensic and Microbiology, University of Swat, Pakistan. (2025—Present).
- **Assistant Professor,** Department of Biotechnology, Genetics, Forensic and Microbiology, University of Swat, Pakistan. (2015—2025).
- **Visiting researcher (OPS, UF)**, Mid-Florida Research and Education Center (MREC) University of Florida, USA. Financially supported by University of Florida (2014).
- **Visiting PhD Scholar (HEC Fellowship)**, MREC, University of Florida, USA. Financially supported by Higher Education Commission of Pakistan (2013- 2014).

Research Interests/Areas of Research

Plant Biotechnology, Nanobiotechnology, Plant Pathology, Plant-based Biologics, Natural Product Research

Funded Research Project

Principal Investigator of the HEC-NRPU Project No. 15558 "*Establishment of fed-batch culture system by using temporary immersion bioreactors for improved production of steviol glycosides in adventitious root cultures of Stevia rebaudiana*" funded by Higher Education Commission of Pakistan. (Funding: Rs. 3.3 million; Project Completed, 2025).

Publications impact

Google Scholar: **Mohammad Ali - Google Scholar**

Featured Publications (First Authored)

1. **Ali M**, Khan J, Ahmad N, Khan H, Iqbal A, Rizwan M, Ali M, Abbasi BH (2021) COVID-19 vaccination gives hope to eradicate Polio. ***Nature medicine.*** 27, 1660–1661.

2. **Ali M**, Abbasi BH, Ahmad N, Fazal H, Khan J, Ali SS (2020) Over-the-counter medicines in Pakistan: Misuse and Overuse. ***The Lancet.*** 395 (10218): 116.

3. **Ali M**, Ahmad N, Khan H, Ali S, Akbar F, Hussain Z (2019) Polio vaccination controversy in Pakistan. ***The Lancet.*** 394 (10202): 915-916.

4. **Ali M,** Abbasi BH, Ahmad N, Khan H, Ali GS (2017) Strategies to enhance biologically active-secondary metabolites in Artemisia- Current trends. ***Critical Reviews in Biotechnology.*** 37(7):833-851.

5. **Ali M**, Abbasi BH, Ahmad N, Ali SS, Ali S, Ali GS (2016) Sucrose-enhanced biosynthesis of medicinally important secondary metabolites in cell suspension cultures of *Artemisia absinthium* L. ***Bioprocess and Biosystems Engineering*.** 39(12):1945-1954.

6. **Ali M**, Kim B, Belfield K, Norman D, Brennan M, Ali GS (2016) Green synthesis and characterization of silver nanoparticles using *Artemisia absinthium* aqueous extract- A comprehensive study. ***Materials Science and Engineering C*.** 58: 359-365.

7. **Ali M**, Kim B, Belfield K, Norman D, Brennan M, Ali GS (2015) Inhibition of *Phytophthora parasitica* and *P. capsici* by silver nanoparticles synthesized using aqueous extract of *Artemisia absinthium.* ***Phytopathology*.** 105 (9): 1183-1190.

8. **Ali M**, Abbasi BH, Ali GS (2015) Elicitation of antioxidant secondary metabolites with jasmonates and gibberellic acid in cell suspension cultures of *Artemisia absinthium* L. ***Plant Cell, Tissue and Organ Culture*.** 120 (3): 1099-1106.

9. **Ali M**, Abbasi BH (2014) Light-induced fluctuations in biomass accumulation, secondary metabolites production and antioxidant activity in cell suspension cultures of *Artemisia absinthium* L. ***Journal of Photochemistry and Photobiology B: Biology*.** 140:223-227.

10. **Ali M**, Abbasi BH (2014) Thidiazuron-Induced changes in biomass parameters, total phenolic content, and antioxidant activity in callus cultures of *Artemisia absinthium* L. ***Applied Biochemistry and Biotechnology*.** 172(5):2363-2376.

11. **Ali M**, Abbasi BH, Haq IU (2013) Production of commercially important secondary metabolites and antioxidant activity in cell suspension cultures of *Artemisia absinthium* L. ***Industrial Crops and Products.*** 49: 400–406.

Published work cited in ScienceDaily/Science News

'Silver bullet' kills phytophthora, a fungus that affects more than 400 plants and trees.
Date: May 5, 2015
Source: University of Florida Institute of Food and Agricultural Sciences
Summary: Silver nanoparticles produced with an extract of wormwood can stop several strains of the fungus phytophthora dead in its tracks.
(https://www.sciencedaily.com/releases/2015/05/150505102103.htm)

Editorial/Reviewer contributions

Reviewed articles for Scientific Journals

- Bioresource Technology (Elsevier)
- Plant Cell, Tissue and Organ Culture (Springer Nature)
- Plant Nano Biology (Elsevier)
- Pharmacological Research - Natural Products (Elsevier)
- Plant Cell, Tissue, and Organ Culture (Springer)
- Scientific Reports (Springer Nature)
- Discover Agriculture (Springer Nature)
- Ornamental Plant Research (Maximum Academic Press)
- Microbial Cell Factories (Springer Nature)
- Nanotechnology for Environmental Engineering (Springer)
- BMC Plant Biology (Springer Nature)
- Archives of Microbiology (Springer Nature)
- Cogent Food & Agriculture (Taylor & Francis)
- Frontiers in Plant Science (Frontiers)
- Journal of Soil Science and Plant Nutrition (Springer)
- BioNanoScience (Springer)
- Journal of Herbal Medicine (Elsevier)