

## Dr. Rimsha Riaz, Lecturer

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### Links

Google Scholar <https://scholar.google.com/citations?hl=en&user=QmJ830EAAAAJ>

ORCID <https://orcid.org/my-orcid?orcid=0000-0002-1050-9084>

### Research Profile

Dr. Rimsha Riaz is a plant biotechnologist specializing in plant genetic engineering, vector development for plant transformation and computational biology. Her research integrates chloroplast and nuclear transformation techniques to engineer transgenic plants, with a focus on gene expression analysis and translational applications in crop resilience and animal health. Leveraging interdisciplinary approaches, she aims to develop innovative plant-based biotechnological solutions to address global agricultural and biomedical challenges.

### Education

October 2016 – December 2021	<b>Ph.D., University of Agriculture Faisalabad, Pakistan</b> Dissertation: “Engineering antigenic proteins of Foot and Mouth Disease Virus (FMDV) Serotype O to express in <i>Trifolium alexandrinum</i> L.” <b>Grade/CGPA: 3.74/4</b>
September 2014 – September 2016	<b>M.Phil., University of Agriculture Faisalabad, Pakistan</b> Dissertation: “Computational and molecular characterization of rice DNA sequence encoding plastidic 16S ribosomal RNA” <b>Grade/CGPA: 4/4</b>
September 2010 – June 2014	<b>B.Sc. (Hons) Agriculture (Major: Agri Biotechnology), University of Agriculture Faisalabad, Pakistan</b> <b>Grade/CGPA: 3.73/4</b>
September 2007 – June 2010	<b>F.Sc. (Pre-Medical), BISE, Faisalabad</b> <b>Grade/Marks: 923/1100</b>
April 2005 – August 2007	<b>Matriculation (Science), BISE, Faisalabad</b> <b>Grade/Marks: 744/850</b>

### Professional Experience

October 2024 – Present	<b>Lecturer, University of Agriculture Faisalabad, Pakistan</b> <ul style="list-style-type: none"><li>Teaching graduate and undergraduate courses</li><li>Assisting and mentoring graduate students in academic and research activities</li></ul>
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## **Curriculum Vitae**

**January 2023 – October 2024**

### **Assistant Manager Research Management, The University of Faisalabad, Pakistan**

- Successfully executed 2<sup>nd</sup> International Conference on Advanced STEAM Education: Emerging trends and applications, 2024, including abstract book compilation, documentation and securing funding grant
- Provided strategic guidance to faculty on research project development, funding acquisition and publication strategies
- Coordinated conferences and workshops, ensuring proper documentation
- Organized research incentive programs to recognize and promote faculty achievements

**January – December 2022**

### **Research Assistant, University of Agriculture Faisalabad, Pakistan**

- Collaborated on multiple research projects
- Analyzed transgenic plants expressing FMDV antigens and pioneered chloroplast-based herbicide resistance testing
- Assisted in laboratory and growth room management, maintaining optimal research conditions
- Assisted and mentored undergraduate and graduate students

**August 2018 – January 2019**

### **Teaching Assistant, University of Agriculture Faisalabad, Pakistan**

- Led practical laboratory sessions for undergraduate and graduate students
- Evaluated assignments and research papers, delivering constructive feedback
- Assisted with administrative tasks related to course management
- Mentored graduate students in thesis writing, experimental design and data

## **Certificate Courses**

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|--------------------------|------|
| ▪ Scientific Writing     | 2021 |
| ▪ SPSS and Meta-Analysis | 2021 |

## **Awards and Scholarships**

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- **Higher Education Commission (HEC) Merit Scholarship**  
Awarded for PhD studies at University of Agriculture Faisalabad, Pakistan

## Curriculum Vitae

- **Silver Medal (M.Phil. Biotechnology)**  
Awarded for academic excellence as the program topper at University of Agriculture Faisalabad, Pakistan
- **University Merit Scholarship**  
Competitive scholarship for outstanding academic performance at University of Agriculture Faisalabad, Pakistan

## Publications

- **Riaz, R.,** S. Zahid and M.S. Khan. Designing an Epitope-Based Vaccine against Bovine Viral Diarrhea using Immuno-informatics. *Pakistan Veterinary Journal*. **2024**, 44(2), 465-475.
- **Riaz, R.,** S. Zahid and M.S. Khan. Immunoinformatics approach to design next-generation epitope-based peptide vaccine against Peste des Petits Ruminants Virus (PPRV). *Process Biochemistry*. **2023**, 440-454.
- Khan, M.S., **R. Riaz,** M. Majid, K. Mehmood, G. Mustafa and F.A. Joyia. The tobacco chloroplast ycf4 gene is essential for transcriptional gene regulation and plants photoautotrophic growth. *Frontiers in Plant Science*. **2022**, 13, p.1014236.
- Islam, R., T. Qamash, S.S. Zaidi, S.M. Omar, M. Shoaib, **R. Riaz,** A.U. Khan, S. Naeem and M.J. Khan. Bioactivities of Medicinal Plants Focused on Targeting Infectious Diseases. *Saudi Journal of Medicine and Pharmaceutical Sciences*. **2022**, 8(8), 392-396.
- **Riaz, R.,** M.S. Khan, F.A. Joyia and M.A. Zia. Designing of Multiepitope-based Subunit Vaccine (MESV) against prevalent serotype of Foot and Mouth Disease Virus (FMDV) using immunoinformatics approach. *Pakistan Veterinary Journal*. **2021**, 41(3), 400-408.
- **Riaz R.,** S. Qadeer, F.A. Joyia, G. Mustafa, and M.S. Khan. **2021**. Plant molecular pharming for Livestock and Poultry. In: *Frontiers in Molecular Pharming*. Vol. 1. 347-381.
- Khan, M.S., **R. Riaz** and S. Qadeer. Engineered Biofortification: Sustainable Solution to Malnutrition. *Advances in Biotechnology and Microbiology*. **2020**, 15(2), 555907.
- **Riaz, R.,** S. Qadeer, R. Azeem, I. Ali and M.S. Khan. Tuberculosis and HIV Complex: A New Health Challenge in South Asian Countries. *CPQ Microbiology*. **2018**, 1(6), 01-09.

## Workshops and Trainings

- **Sugarcane varieties identification and production technology**  
Sugarcane Research and Development Board, Pakistan  
(June 19, 2025)
- **Workshop on Molecular Biology in Forensic Science: From Sampling to Data Processing**  
Centre of Agricultural Biochemistry and Biotechnology (CABB), UAF  
(October 01-02, 2024)
- **One-Minute Management: Efficient Leadership in a Flash**  
National Productivity Organization (NPO), Pakistan  
(March 27, 2024)
- **Implementation & Assessment of Outcome Based Education in HEIs**

## Curriculum Vitae

The University of Faisalabad  
(January 30, 2024)

- **Intellectual Property Right & Patent Filing**  
Punjab Higher Education Commission  
(February 1-2, 2024)
- **Outcome Based Learning**  
The University of Faisalabad  
(October 3, 2023)
- **From Lab to Market: Mastering Research Commercialization & Innovation**  
Higher Education Commission  
(August 16-18, 2023)
- **1<sup>st</sup> International Training Workshop on Biotechnology, Bioinformatics and Biochemistry**  
Centre of Agricultural Biochemistry and Biotechnology (CABB), UAF  
(April 2-3, 2019)

## Oral Presentations

**Riaz, R.** and M.S. Khan. Designing Epitope based Subunit Vaccine against Foot and Mouth Disease Virus Serotype O using Immunoinformatics. 3<sup>rd</sup> International Conference on Sustainable Development in Agriculture, Health and Food Security. 2024.  
(The Women University Multan, Pakistan)

## Poster Presentations

**Riaz, R.** S. Qadeer, S. Shehzad, Z. Kiran and A. Naeem. Designing Next-Generation Vaccines Using Antigenic Subunits: Challenges and Opportunities. Celebrating 15 Years of Excellence of HEC Pakistan. 2017.  
(CABB, University of Agriculture, Faisalabad)

## Professional Services and Affiliations

- Reviewer in Pakistan Journal of Biochemistry and Biotechnology (PJBB)
- Member of Multi-Omics

## Professional References

- **Dr. Muhammad Sarwar Khan** (FRSB)  
Professor  
Centre of Agricultural Biochemistry and Biotechnology (CABB)  
University of Agriculture Faisalabad, Pakistan  
Email: [sarwarkhan\\_40@uaf.edu.pk](mailto:sarwarkhan_40@uaf.edu.pk)  
[sarwarkhan\\_40@hotmail.com](mailto:sarwarkhan_40@hotmail.com)
- **Dr. Ghulam Mustafa**

## ***Curriculum Vitae***

Professor

Centre of Agricultural Biochemistry and Biotechnology (CABB)

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[drmustafa8@gmail.com](mailto:drmustafa8@gmail.com)

▪ **Dr. Faiz Ahmad Joyia**

Associate Professor

Centre of Agricultural Biochemistry and Biotechnology (CABB)

University of Agriculture Faisalabad, Pakistan

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[faizahmad1980@gmail.com](mailto:faizahmad1980@gmail.com)