

Dr. Muhammad Abaid Ullah

Assistant Professor

Department of Microbiology & Molecular Genetics (MMG), BZU, Multan-Pakistan

HEC Approved Supervisor

Date of Birth: 13/05/1984

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ACADEMIC/PROFESSIONAL PARTICULARS

(a) Field of Specialization:	
Major Field of Specialization	Fine Field Specialization
Bio Sciences	Microbiology / Botany

Degree	Major	Year	University	Dissertation /Project Title
Post doctorate		2018	CUI, Islamabad-Pakistan	Use of <i>Rhizobium</i> spp to enhance the nutritional value and yield of lentil genetic resources
PhD	Biosciences	2015	CUI, Islamabad-Pakistan	Improvement of wheat (<i>Triticum aestivum</i> L.) nutrients through zinc (Zn) mobilizing plant growth promoting rhizobacteria (PGPR).
M. Phil	Cell and Molecular Biology	2009	QAU, Islamabad-Pakistan	Genetic studies of quantitative traits in wheat germplasm under stripe rust stress in NWFP, Pakistan
BS (4years)	Botany	2007	BZU, Multan-Pakistan	Zinc phytotoxicity in three varieties of wheat

(b) Academic Positions Held			
Department, College, University	Rank	Country	Period
QAU, Islamabad	Research Associate	Pakistan	04/2007-08/2008
Austrian Institute of Technology (AIT), Vienna-Austria	Visiting Researcher	Austria	11/2012-04/2013
COMSATS University Islamabad, Islamabad	Research Associate	Pakistan	04/2015-09/2015
BZU, Multan	Assistant Professor (IPFP)	Pakistan	09/2015-12/2016
COMSATS University Islamabad, Islamabad	Senior Scientific Officer (OG-II)	Pakistan	04/2017-12/2017
COMSATS University, Islamabad	Post Doctorate Fellow	Pakistan	07/2018-06/2019
Cholistan University of Veterinary & Animal Sciences (CUVAS)	Visiting Lecturer	Pakistan	02/2020-6/2020
Khawja Fareed University of Engineering & Information Technology, Rahim Yar Khan	Assistant Professor (contract, adhoc, visiting)	Pakistan	7/2020- 6/2022
BZU, Multan	Assistant Professor, TTS	Pakistan	7/2022- Date

© Academic Honors and Awards		
Name of the Award	Awarding Institution	Year
Research Productivity Award 2025	Vice Chancellor, BZU, Multan-Pakistan	2025
Research Productivity Award 2022	Vice Chancellor, KFUEIT, Rahim Yar Khan-Pakistan	2022
Best Reviewer of the year award	PLOS ONE (Journal)	2021
Won Excellent Science Popularization Ambassador of 2018 National Science and Technology Week-Shanghai Science Festival	Shanghai, China	2018
Research Productivity Award 2015	Rector, CUI, Islamabad-Pakistan	2015
Won 1st Prize in 2 nd Annual Biosciences Poster Exhibition and Competition (BIOPEC)	COMSATS University Islamabad- Pakistan	2011
Won 2nd Prize awarded by President of AJK in International Science Conference on "Utilization of Modern Agriculture Technology in Changing Environmental Perspectives"	University of AJK (Rawala kot campus)	2010
Won 2nd Prize in 1 st Annual Biosciences Poster Exhibition and Competition (BIOPEC)	COMSATS University Islamabad- Pakistan	2010

(d) Membership of Professional Bodies		
Name of Professional Body	Membership Grade	Joining Date
Scaling Up Nutrition Academia and Research (SUNAAR) Network Pakistan	Membership	01/2018
Nature Methods	Membership	06/2016
American Society of Microbiology (ASM)	Membership	01/2018
Microbiology Society	Membership	01/2017
Botanical Society of Pakistan (BSP)	Membership	04/2008
International Network for Government Network Advice (INGSA)	Membership	09/2019

(E) Extra Curricular activities
<ul style="list-style-type: none"> ▪ Won runner up prize in football team at QAU, Islamabad.
<ul style="list-style-type: none"> ▪ Got 8th position in road race at QAU, Islamabad.
<ul style="list-style-type: none"> ▪ Won 1st prize of Drama society at COMSATS University Islamabad, Islamabad
<ul style="list-style-type: none"> ▪ Won 1st prize in sac race at BZU, Multan

(f) Major Courses Taught
Course Name
Fundamentals of Microbiology
Microbial Taxonomy
Bacteriology & Virology
Epidemiology, Public health & Bioethics
Soil Microbiology
Food and Dairy Microbiology
Plant Systematic, Anatomy & Development
Diversity of Plants I
Diversity of Plants II
Cell Biology, Genetics & Evolution
Economic Botany
Research Methodology
Plant Microbiology

(g) Research Students Supervised/Trained

	Master Students	Undergraduate Students
Number of Trainees	17	12

(h) Publications/Citations Data

Type of Publication:	International
Total Number of Publications:	25
Articles in International Refereed Journals:	18
Conference Papers:	03
Book Chapters:	04 (01)
Research Grant	06
Number of Citations:	598
Citation Source:	Google Scholar

(i) Research Grants

Awarding Body	Role	Title of Project	Name of Institution	Duration	Grant Amount
SRGP, HEC-Islamabad	PI	Isolation, screening and characterization of multifarious plant growth promoting bacteria (PGPB) for nutrients mobilization from the native fields of southern Punjab	IP & AB, BZU, Multan	2016-2017 (Completed)	RS: 0.5 million
CUI, Research Grant	PI	Evaluation of biotin and exopolysaccharides (EPS) producing ability of PGPR/ <i>Rhizobium</i> potentially linked with colonization/nodulation	CUI, Islamabad	2017-2019 (Completed)	RS: 0.3 million
NRPU, HEC-Islamabad	CO-PI PI (Dr. Nazneen Bangash)	Isolation and identification of cellulolytic bacteria from termites' gut (<i>Cryptotermes</i> sp.)	CUI, Islamabad	2020-2024 (Completed)	RS: 3.5 million
ALP-PARC, Islamabad	Member	Use of <i>Rhizobium</i> spp to enhance the nutritional value and yield of lentil genetic resources	CUI, Islamabad	2018-2021 (Completed)	RS. 12.8 million
NRPU-HEC	PI (CO-PI Dr. Nazneen Bangash)	Biofortification of wheat crop to eliminate zinc deficiency using zinc solubilizing bacteria (ZSB) isolated from the native fields of Rahim Yar Khan	HEC	2022-2025 In progress	RS. 2.7 million

(j) Participation in Regional & International Conferences

- Participation in National training workshop on "Advanced Technologies in Gene Expression Analysis" (23-9-2013)

- Participation in International summer school "Food security in times of climate change" (2-11-2013)
- Participation in training workshop "Advances in collection of microorganisms and cell cultures" (3-11-2014)
- Participation in one-day seminar on "Science communication and journalism" (8-4-2014)
- Participation in Pak China Business forum 2011, 2012 and 2014.
- Oral presentation at international conference ("International Conference on Emerging Trends in Life Sciences for Sustainable Development) at FCC, Lahore (8-10-2014)
- Attended COMSTECH-PAEC-PNRA-IAEA Joint international workshop on "Application of nuclear radiation in the fields of agriculture, medicine, and Nano-destructive testing and nuclear regulatory practices" April 18-23, 2016.
- Attended "3-day workshop on modern trends in microscopy" organized by IUVSTA and NINVAST. May 24-26, 2016
- Attended "Capacity building sessions with the biosafety regulators" organized by Pakistan Biotechnology Information Center (PABIC) at Serena Hotel, Islamabad. August 11-12, 2016.
- Presented the research work at 13th Biennial Conference on "Recent Advances & challenges in Molecular Biology, Biochemistry & Biotechnology "hosted by CADR CIIT-Abbottabad. 26-28 August, 2016
- Attended COMSTECH-Technology Times Joint International Workshop On "Science Communication Portfolio: A Guide To Creating Communication Materials That Complement Science" January 10-11, 2017
- Attended the conference titled "7th International Conference on Environmentally Sustainable Development held on August 26-28, 2017 at CIIT Abbottabad
- Attended National Symposium on bio-fertilizers held on January 17, 2018, at NARC, Islamabad
- Presented the research work 17th Congress of Soil Science held at Faisalabad from 13-15 March, 2018 organized by Soil Society of Pakistan.

- Participated in 2018 Shanghai Science Festival- National Science Week of China: "Belt and Road" International Science Week" held on May 18-27, 2018
- Participated in workshop titled "Using Scientific Evidence for Maximizing Benefits of CPEC" held on November 5, 2019 at NUST, Islamabad
- Participated in a webinar titled Biotechnology and Prevailing pandemic arranged by Virtual University of Pakistan (26th August, 2020)
- Participated in an online workshop titled Intellectual property for scientists arranged by COMSTECH secretariat (9th September, 2020)
- Participated in an online workshop titled international webinar on cyanide poisoning arranged by UVAS, Lahore
- Participated in a training workshop titled "from zoom fatigue to zoom vroom" arranged by (Faculty Development Academy) FDA at CUI, Islamabad, Pakistan (8th February, 2021)
- Participated in a training workshop titled "Understanding Decision-making: Unraveling the Complexities" arranged by (Faculty Development Academy) FDA at CUI, Islamabad, Pakistan (25th February, 2021)
- Participated in the workshop organized by HEC-BC PI's Research Capacity building program from May 16th- 20th, 2022
- Participated in the International webinar "Biofortification of staple crops to combat mineral malnutrition" held on August 29, 2022.
- Participated in a workshop titled International Training Workshop on Managing Science and Technology Parks (STPs) organized by COMSTECH secretariat (7th-8th September, 2022)
- **Member Organizing Committee** of a conference titled "5th international conference on applied zoology (ICAZ 2022)" AT KFUEIT, Rahim Yar Khan during 17-18 October, 2022.
- **Organized** a one-day seminar titled Journey of Biotechnology in Pakistan - 4 decades of mixed progress delivered by Dr Yusuf Zafar, (T.I), former chairman, PARC (16th November, 2022)
- Delivered a lecture as **invited speaker** in International Conference on "Innovations in Chemistry, Biochemistry, Biotechnology and Bioinformatics" (ICBBB-2022) held at 15-22 December, 2022.

- **Attended** the International Conference/Workshop on Science Communication and Community Engagement organized by COMSTECH, and Ministry of Foreign Affairs in collaboration with Technology Times, Regional Rapport, and Pakistan Biotechnology Information Center (PABIC) during 1 to 3 February, 2023
- Delivered a lecture as **Guest speaker** in 2nd International Conference on “Precision and sustainable agriculture under climate change” held at KFUEIT, Rahim Yar Khan during 22-23 February, 2024.
- Delivered an online lecture as **Invited speaker** in University Alliance of Belt and Road Forum 2024 on the title “Impact of Green Development in Pakistan under Belt and Road initiative: Enhancing Collaboration Mechanisms and Exploring Digital Education Prospects” during October 28th-30th, 2024 organized by Lanzhou University, LZU and Higher & Vocational Educational Institutions of Gansu Province.
- **Member Organizing Committee** of a conference titled 9th International & 18th National Conference of Plant Scientists “Capitalizing Plant Diversity for Ensuring Food Security” on October 28-30, 2024 at the Bahauddin Zakariya University, Multan.
- Participated in the 1st Conference on the Revival of Cotton Sector in Pakistan, February 4, 2025, at Ramada Hotel, Multan.
- Attended a seminar titled Tapping into the Full Potential of the Stratosphere organized by COMSTECH secretariat (23rd June, 2025).
- Attended a Webinar titled Development of an Integrated Quality Management System organized by MiChem Dynamics Training Academy (02-12-2025)

Reviewer of the Journals

- PLOS ONE
- Annals of Microbiology
- Indian Journals of Microbiology
- Evidence-Based Complementary and Alternative Medicine
- Frontiers in Microbiology

Member of Editorial Board

- PLOS ONE
- Zoo Botanica
- International Journal of Molecular Biotechnological Research

SERVICES

- Serving as **member / secretary** admission, **Focal person** for website, **Focal person** for prospectus, **coordinator** for student's scholarships to Department of MMG, BZU, Multan
- Serving as **superintendent** to Qasim Hall, BZU, Multan.
- Served as Departmental DSA in the Department of MMG, BZU, Multan.
- Served as **member** of committee for open house events and sports at COMSATS University, Islamabad
- Served as **coordinator** of committee for admissions at KFUEIT, Raheem Yar Khan
- Served as **president/manager** of Athletics, Hiking and Long jump in the KFUEIT sports committee
- Served as **sports coordinator** in the department of life sciences, KFUEIT, Raheem Yar Khan
- Served as **member** of **external linkage committee** at KFUEIT, RYK
- Served as a **member QEC** at KFUEIT, RYK
- Served as a **coordinator** to ORIC at KFUEIT, RYK
- Served as a **coordinator** to product advisory committee at KFUEIT, RYK

List of Publications

(Published)

1. Abbas, D., Liaqat, U., Ali, H., Fatima, T., Riaz, A., Haq, I.U., Sarwar, Z.M., **Abaid ULLAH, M.**, Ghafar, M.A., Haider, K. and Khalid, M.L., (2026). Management of canola aphids (Hemiptera: Aphididae) using potassium silicate (K₂SiO₃) in integration with *Chrysoperla carnea* Stephens. Journal of Plant Diseases and Protection, 133(1), p.8.
2. HABIB, S.S., ARSHAD, M., LATIF, F., **Abaid ULLAH, M.**, MAJEED, S., MOHANY, M. and FAZIO, F., (2025). Bioaccumulation and Biochemical Response of Cadmium In *Labeo Rohita* Across Varying Sizes. Carpathian Journal of Earth and Environmental Sciences, Vol. 2(20); DOI:10.26471/cjees/2025/020/339
3. Hashmi, M.A.H., **Abaid-Ullah, M.**, Ullah, M., Habib, S.S., Batool, A.I., Naz, S., Zahid, M., Khan, K., Shaheen, B., Saeed, M.Q. and Mohany, M., (2025). Assessment of Trace Elements and Fluoride Contamination in Kabul River: A Comparative Study Across Different Sites. *Fluoride*, 58(10), pp.1-10.

4. Hayat, Z., Shahzad, K., Ali, H., Casini, R., Naveed, K., Hafeez, A., ... & **Abaid-Ullah M**, A. (2022). 16S rRNA gene flow in Enterococcus spp. and SNP analysis: A reliable approach for specie level identification. *Biochemical Systematics and Ecology*, 103, 104445.
5. Kamran, M., Salamat, N., Hussain Khan, R., **Abaid Ullah, M.**, Hameed, M. S., & Pandit, M. K. (2022). Computation of Revan Topological Indices for Phenol-Formaldehyde Resin. *Journal of Mathematics*
6. Saeed A, Ali M, Fazal S, Ahsan J, Khan MA, Hassan A and **Abaid Ullah M**. (2021). Study of ecosystem and pastoralism in Cholistan, Pakistan. *International Journal of Forest Sciences*. 124-132
7. Babar M, Khan RMR and **Abaid Ullah M**. (2021). Nanotechnology and Nanomedicine-mini review. *International Journal of Forest Sciences*. 90-94
8. Ibrahim M, Ahmed S, Munir S, Qamar S, Fatima H, Ameer S, **Abaid Ullah M**, Nawaz H and Nawaz M. (2021). Assessment of effect of antimicrobial compounds isolated from the rhizobacteria of *Calotropis* on the growth of pathogenic bacteria. *Bioscience Research*. 2863-2878
9. M. Afzaal, A. Abdullah, S. Ahmed, M. Ibrahim, J. Khan, S.A. Mirza, A. Aftab, A. Ahmad, M.A. Idrees, **M. Abaid Ullah**. (2021). Evaluation of *Ceiba pentandra* for the removal of residual oil from pome (palm oil mill effluent) by using factorial design bioreactor. *Pakistan Journal of Sciences*. 05
10. Muhammad Umair and **Muhammad Abiad Ullah** (2021) Analysis of *Parthenium hysterophorous*-a review. *International Journal of Forest Sciences*. 1(2):57-62
11. Nisar MF, Yousaf M, Saleem M, Khalid H, Niaz K, Yaqub M, Waqas MY, Ahmed A, **Abaid-Ullah M**, Chen J, Chen C (2021) Development of Iron Sequester Antioxidant Quercetin@ ZnO Nanoparticles with Photoprotective Effects on UVA-Irradiated HaCaT Cells. *Oxidative Medicine and Cellular Longevity*. 26.
12. **Abaid-Ullah M** and Hafeez FY (2019) Biofertilizer/biopesticide potentiality of zinc solubilizing *Pseudomonas aeruginosa* FA-9 and *Enterobacter* sp. FA-11 isolated from the wheat rhizosphere grown in arid zone. 08 April 2019, *Access Microbiology* 1: doi: 10.1099/acmi.ac2019.po0127

13. Nazir, Mian Faisal, Talat Mahmood, Muhammad Kausar Nawaz Shah, Zareen Sarfraz, Wazir Ali, **Muhammad Abaid Ullah** Metlo, and Muhammad Shahid Iqbal. "Inheritance Studies for Morpho-Physiological Traits In Wheat Under Rainfed Condition. *Pakistan Journal of Biotechnology*. 16 (2) 105-113 (2019)
14. Sarwar A, Günter Brader, Erika Corretto, Gajendar Aleti, **Muhammad Abaid Ullah**, Angela Sessitsch and Fauzia Yusuf Hafeez. Qualitative analysis of biosurfactants from *Bacillus* species exhibiting antifungal activity. *PLOS ONE*. 2018
15. Akram Z, Riaz S, Kayani MA, Jahan S, Ahmad MW, **Abaid Ullah M**, Wazir H, Mahjabeen I. Lead induces DNA damage and alteration of ALAD and antioxidant genes mRNA expression in construction site workers. *Archives of environmental & occupational health*. 1-8. 2018
16. **Abaid-Ullah M**, Hassn NM, Jamil M, Brader G, Kausar Shah NM, Sessitsch A and Hafeez FY. Plant Growth Promoting Rhizobacteria: An Alternate Way to Improve Yield and Quality of Wheat (*Triticum aestivum*). *International Journal of Agriculture and Biology* 17, 51-60. 2015
17. Ali Ahmed, Ammarah Hasnain, Saeed Akhtar, Asma Hussain, **Abaid-ullah M**, Ghulam Yasin, Abdul Wahid and Seema Mahmood. Antioxidant enzymes as bio-markers for copper tolerance in safflower (*Carthamus tinctorius* L.). *African Journal of Biotechnology* 9(33): 5441-5444. 2010.
18. Fareeha, **Muhammad Abaid Ullah**, Seema Mahmood. Biochemical response of *Pisum sativum* L. under Cadmium and Mercury regimes. *Journal of Chemical Society of Pakistan* 29: 4. 2007

Conference proceeding Papers

- **Abaid-Ullah M** and Hafeez FY (2019) Biofertilizer/biopesticide potentiality of zinc solubilizing *Pseudomonas aeruginosa* FA-9 and *Enterobacter* sp. FA-11 isolated from the wheat rhizosphere grown in arid zone. 08 April 2019, Access Microbiology 1: doi: 10.1099/acmi.ac2019.po0127
- **Abaid-Ullah M**, Hassan MN, Nawaz MK, Hafeez FY (2011) Biofortification of wheat (*Triticum aestivum* L) through Zn mobilizing PGPR. Proceedings of International Science Conference "Prospects and Challenges to

Sustainable Agriculture". Multiline books publisher Lahore, AJ&K, Pakistan, p 298

Books/Book Chapters

- Ali, H., Jawad, M., Ali, R.S., Shahid, M.R., Manzoor, M., Bodlah, M.A., **Abaid ULLAH, M.**, Rasool, R., Aqeel, M.A., Sarwar, M.Z. and Ghaffar, M., (2026). Advances in Plant Quarantine and Biosecurity. In Integrated Pest Management (pp. 118-126). CRC Press.
- Muhammad Zeeshan Ahmed, Tazeen Rao, Ali Saeed, Zeeshan Mutahir, Shahzeb Hameed, Samrana Inayat, Haseeba Shahzad, Najeeb Ullah, **Muhammad Abaid-Ullah**, Muhammad Ibrahim, Shehla Munir, Asghar Javed, Jallat Khan, Muhammad Khalid, Sarfraz Ahmed Antifungal Drugs: Mechanism of Action and Resistance. 2021. 143-165. Springer, Cham.
- Mahmood A, Eqan M, Pervez S, Javed R, Ullah R, Islam A, Khan A, Baig AA, Kumar G, **Abaid-Ullah M**, Rafiq M. Drugs Resistance in Heart Diseases. In Biochemistry of Drug Resistance. 2021. 295-334. Springer, Cham.
- Fauzia Y. Hafeez, **Muhammad Abaid-Ullah**. PGPR as Zinc mobilizer, a promising approach for Zn improvement of cereals. In: Bacteria in Agro-Biology: Plant productivity. 2013. Springer Publishers.

Other Publications

- **Abaid-Ullah M**, Hassan MN, Nawaz MK and Hafeez FY. (2010) Improvement of wheat (*Triticum aestivum* L) nutrients by zinc mobilizing plant growth promoting rhizobacteria (PGPR). Poster presented at 1st Annual Biosciences Poster Exhibition and Competition (BIOPEC), CIIT-Islamabad. May 20th, 2010

