

PERSONAL INFORMATION

Muhammad Shehroz



📍 House 211, Street 09, Sector B, Green Acres Town, KPK, 44000 Mardan (Pakistan)

📞 +923319123034

✉️ muhammadshehroz95@yahoo.com ✉️ muhammadshehroz@kum.edu.pk

Sex Male | Date of birth 20/03/1995 | Nationality Pakistani

WORK EXPERIENCE

13/03/2022-present

Lecturer Bioinformatics

Kohsar University Murree

My responsibility as a Lecturer includes, delivering lectures to both undergrad and postgraduate students. Helping research students execute their research projects, conduct original research in bioinformatics, publish research papers, and seek funding for research projects.

01/05/2022-01/10/2023

Research Associate

Kohsar University Murree

My responsibility as Research Associate at the Department of Microbiology KUM, included designing and conducting experiments, analyzing data, and collaborating with team members. The role involves maintaining accurate records, adhering to safety protocols, and contributing to research publications.

13/03/2022-present

Deputy Provost

Kohsar University Murree

My responsibility as Deputy Provost includes Academic Planning and Development, Faculty Recruitment and Development, Budgeting and Financial Management, Student Affairs, Research and Innovation.

13/01/2020-03/2022

Instructor Biotechnology

Virtual University of Pakistan

My responsibility as an instructor included laboratory practicals demonstration to students, lecture recording, student's thesis, and exam evaluation

01/9/2018-01/9/2019

Research Assistant

National University of Sciences & Technology ASAB (HEC)

I was employed as Research Assistant at Integrative Biology and Genomics lab in HEC funded project title: "Pangenome analysis of multidrug resistance *S.aureus* strains to get insight into mechanism of pathogenicity"

EDUCATION AND TRAINING

09/2017-08/2019

MS Industrial Biotechnology (CGPA 3.35)

National University of Sciences and Technology, Islamabad (Pakistan)

General

Research Methodology

Majors

Industrial Biotechnology, Food Microbiology, Principles of Molecular Biology, Neuropharmacology, Bioprocess Engineering, Genomics, Immunology and Vaccine Development, RNA Biology

2013-2017

BS Biochemistry (CGPA 3.05)

Abdul Wali Khan University Mardan Pakistan

General

Communication and interpersonal skills, Research Methodology

Majors

Bioinformatics, Immunology, Biotechnology, Cell Biology, General Genetics, Molecular Evolution, Metabolism, Enzymology, Protein Chemistry, Physical Techniques in Biochemistry, Biostatistics, Microbiology, Animal and Plant Physiology, Organic Chemistry

Publications

1. M.Adnan Shereen, Aftab A, Hashir K, Sadia M Satti, Abeer K, Nadia B, **Muhammad Shehroz.**, (2023) Plant Extract Preparation and Green Synthesis of Silver Nanoparticles Using Swertia Chirata: Characterization and Antimicrobial Activity Against Selected Human Pathogens. [Heliyon](#).
2. Shah, Mohibullah; Jaan, Samavia; **Shehroz, Muhammad**; Sarfraz, Asifa; Asad, Khamna., (2023) Deciphering the Immunogenicity of Monkeypox Proteins for Designing the Potential mRNA [Vaccine ACS Omega](#)
3. Shah, M., Anwar, A., Qasim, A., Jaan, S., Sarfraz, A., ALI, E., Nishan, U., **Shehroz, M.**, Zaman, A. and Ojha, S.C., (2023) Proteome Level Analysis of Drug-Resistant *Prevotella melaninogenica* for the Identification of Novel Therapeutic Candidates. [Frontiers in Microbiology](#), 14, p.1271798.
4. Shah, M., Qasim, A., Jaan, S., Habib, S., **Shehroz, M.**, Nishan, U., ... & Ojha, S. C. (2023) Computer-Aided Genomic Data Analysis of Drug-Resistant *Neisseria gonorrhoeae* for the Identification of Alternative Therapeutic Targets. [Frontiers in Cellular and Infection Microbiology](#), 13, 273
5. Shahid, F., Zaheer, T., Ashraf, S.T **Shehroz, M.**, et al. Chimeric vaccine designs against *Acinetobacter baumannii* using pan genome and reverse vaccinology approaches (2021). [Sci Rep 11](#)
6. Aslam, M., **Shehroz, M.** ali.fawad. (2021). Chlamydia trachomatis core genome data mining for promising novel drug targets and chimeric vaccine candidates identification. [Computers in Biology and Medicine](#).
7. Tanveer, F., **Shehroz, M.**, Ali, M., Xie, Y., Abbasi, R., Shinwari, Z. K., & Yasmin, A. (2021). Genome sequence analysis and bioactivity profiling of marine-derived actinobacteria, *Brevibacterium luteolum*, and *Cellulosimicrobium funkei*. [Archives of Microbiology](#), 1-10
8. **Shehroz, M.**, Zaheer, T., & Hussain, T. (2020). Computer-aided drug design against spikeglycoprotein of SARS-CoV-2 to aid COVID-19 treatment. [Heliyon](#), e05278
9. Rahman, N., Ali, F., Basharat, Z., **Shehroz, M.**, Khan, M. K., Jeandet, P., ... & Khan, H. (2020). Vaccine design from the ensemble of surface glycoprotein epitopes of SARS-CoV-2: An immunoinformatics approach. [Vaccines](#), 8(3), 423.
10. Tahreem Zaheer, Maaz Waseem, Walifa Waqar, Hamza Arshad Dar, Kanwal Naz, **Muhammad Shehroz**, Zaara Ishaq, Nimat Ullah, Tahir Ahmad, Syeda Marriam Bakhtiar, Syed Aun Muhammad, Amjad Ali, "AntiCOVID-19 multi-epitope vaccine designs employing global viral genome sequences"(peerj)
11. Aslam, M., **Shehroz, M.**, Hizbullah, Shah, M., Khan, M. A., Afridi, S. G., & Khan, A. (2020). Potential druggable proteins and chimeric vaccine construct prioritization against *Brucella melitensis* from species core genome data. [Genomics](#). <https://doi.org/10.1016/j.ygeno.2019.10.009>
12. Chhotaray, C., Wang, S., Tan, Y., Ali, A., **Shehroz, M.**, Fang, C., Liu, Y., Lu, Z., Cai, X., Adnan Hameed, H. M., Islam, M. M., Surineni, G., Tan, S., Liu, J., & Zhang, T. (2020). Comparative analysis of whole-genome and methylome profiles of a smooth and a rough *Mycobacterium abscessus* clinical strain. [G3: Genes, Genomes, Genetics](#). <https://doi.org/10.1534/g3.119.400737>
13. Dar, H. A., Zaheer, T., **Shehroz, M.**, Ullah, N., Naz, K., Muhammad, S. A., Zhang, T., & Ali, A. (2019). Immunoinformatics-aided design and evaluation of a potential multi-epitope vaccine against *klebsiella pneumoniae*. [Vaccines](#). <https://doi.org/10.3390/vaccines7030088>
14. Ullah, N., Raza, T., Dar, H. A., **Shehroz, M.**, Zaheer, T., Naz, K., & Ali, A. (2019). Whole-genome sequencing of a new sequence type (ST5352) strain of community-acquired methicillin-resistant *Staphylococcus aureus* from a hospital in Pakistan. [Journal of global antimicrobial resistance](#), 19, 161- 163.
15. **Shehroz, M.**, Aslam, M., Khan, M. A., Aiman, S., Afridi, S. G., & Khan, A. (2019). The in silico characterization of a salicylic acid analogue coding gene clusters in selected *pseudomonas fluorescens* strains. [Iranian Journal of Biotechnology](#). <https://doi.org/10.30498/ijb.2019.95299>
16. Aiman, S., **Shehroz, M.**, Munir, M., Gul, S., Shah, M., & Khan, A. (2018). Species-Wide Genome Mining of *Pseudomonas putida* for Potential Secondary Metabolites and Drug-Like Natural Products Characterization. [Journal of Proteomics & Bioinformatics](#). <https://doi.org/10.4172/jpb.1000460>
17. Aslam, M., **Shehroz, M.**, Gul, S., Shah, M., & Khan, A. (2017). In-silico Identification of Drug-Like Compounds for Targeting HIV-1N and Human Host LEDGF / p 75 Interaction. [JSM Bioinformatics, Genomics and Proteomics](#)

Book Chapters

1. Naz, K., Ullah, N., Zaheer, T., **Shehroz, M.**, Naz, A., & Ali, A. (2020). Pan-genomics of model bacteria and their outcomes. In Pan-genomics: Applications, Challenges, and Future Prospects. <https://doi.org/10.1016/b978-0-12-817076-2.00009-3>
2. Subtractive Genomics Approaches: Towards Anti-Bacterial Drug Discovery F Shahid, **M Shehroz**, T Zaheer, A Ali - Front. Anti-Infect. Drug Discov, 2020.

Certifications

1. Python for Genomic Data Science- Johns Hopkins University

Conferences

1. Capacity Building Training Workshop series funded by the United States Government under project US-Pakistan University Partnership Grants Program(USEFP) **2023**
2. Pakistan-U.S. Alumni Network (PUAN) five-day workshop for Exchange Alumni on "Promoting Critical Thinking through STEM-Science, Technology, Engineering and Math" **2023**
3. Focal person NTC NCRC Preliminary Meeting of Software Engg Tech at KUM **2022**
4. NATIONAL SUMMER SCHOOL BIOMOLECULAR SCIENCES: Advances in Bioinformatics **2022**
5. Walk for Science: A joint venture between Kohsar University Murree and the Pakistan Science Foundation **2022**
6. US-Pakistan University Partnerships Grant Program (UPGP) **2022**
7. National Conference on Disability Issues **2022**
8. WPSA Poultry Technology Conference **2022**
9. Conference on Biotechnology and Prevailing Pandemic" hosted by the Department of Biotechnology, Virtual University of Pakistan **2021**
10. International Online Conference on Future Trends in E-Learning & Collaborative Working" (Lahore, Pakistan- **2020**)
11. International Symposium on "Mental Health and Stress Management"
12. International Webinar on Applied Mathematics and Modelling
13. International Symposium on World Camel Day, "Camel as the Animal of Future"
14. (Lahore, Pakistan- **2020**)
15. International Online Conference on Digitalization and Cyber Security **2020**
16. International E-Conference on Biotechnology, Bioinformatics, and Biomedicine **2020**
17. COVID-19: Pandemic scenario and health challenges **2020**
18. 1st International Conference: Medicinal Chemistry and Drug Discovery as a poster presenter. (Islamabad, Pakistan- **2018**)

Referee 1: Supervisor

Dr. Amjad Ali, Ph.D.

Associate Professor
Atta-ur-Rahman School of Applied Biosciences (ASAB),
National University of Sciences and Technology (NUST),
H-12 Islamabad, Pakistan 44000
Office: +92 51 90856138 Cell: +92 333 9191903
E-mail: amjad.ali@asab.nust.edu.pk

Referee 2: Supervisor

Dr. Asifullah Khan, Postdoc.

Associate Professor
Department of Biochemistry,
Abdul Wali Khan University Mardan (Awkum)
Cell: +92 333 9278471
E-mail: asif@awkum.edu.pk

Referee 3: Mentor

Dr. Mohibullah Shah Ph.D.

Assistant Professor
Department of Biochemistry,
Bahauddin Zakariya University Multan, Pakistan
Cell: +92 3139712930
E-mail: mohib@bzu.edu.pk

Referee 3: Mentor

Dr. Sami Ullah

Dr.rer.nat (Remote Sensing of Forestry, Germany)
Assistant Professor
Head of the Forestry and Range Management
Kohsar University Murree, Pakistan
E-mail: drsamiullah@kum.edu.pk