

Iqbal Ahmad Alvi (Ph.D)

Lecturer

Department of Microbiology

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EDUCATION and TRAINING

Post doctoral Research Fellow IDRC funded Research Project “ Antibiotic Alternative for Pakistani Poultry”

Ph.D. Microbiology and Molecular Genetics, University of the Punjab, Pakistan 2020.

Thesis title: *In vitro* and *in vivo* study of phages active against multidrug resistant bacteria.

M.Phil., Microbiology, Hazara University, Mansehra 2013.

Thesis title: Frequency and distribution of Methicillin Resistant *Staphylococcus aureus* (MRSA) in District Mansehra.

B.Sc (Hons), Microbiology, Hazara University, Mansehra 2007.

Report title: Immune response against *Treponema pallidum* in Syphilis.

RESEARCH and PROFESSIONAL EXPERIENCE

University of the Punjab, Institute of Microbiology and Molecular Genetics, Post Doctoral Research Associate, April 2022-March 2023

University of the Punjab, Department of Microbiology and Molecular Genetics, *Ph.D Scholar*, October 2014 to August 2018

Hazara University, Mansehra, Department of Microbiology, *Lecturer*, April 2008 to date.

BIOSKETCH

I am serving as a Lecturer in the Department of Microbiology at Hazara University, Mansehra, currently working as post-doctoral research associate in an IDRC funded project, " Development and Commercialization of Antibiotic Alternatives for Pakistan Poultry Production". My research focuses on human and animal health with emphasis on bacteriophage therapy against multiple drug resistant bacteria. Previously I have worked on Methicillin Resistant *Staphylococcus aureus* (MRSA), MDR *Pseudomonas aeruginosa*, antibacterial efficacy of different medicinal plants and Bacteriophage therapy of *P. aeruginosa*. I have a good command on screening bacteria, Isolation of bacteriophages from different environment, characterization of bacteriophages, genetic characterization of bacteriophages, cloning and protein expression, in-Vivo application of bacteriophages as therapeutic and genome editing using CRISPR-Cas system.

SELECTED PUBLICATIONS

- **Alvi, I. A.**, Asif, M., & ur Rehman, S. (2021). A Single dose of a virulent bacteriophage vB PaeP-SaPL, rescues bacteremic mice infected with multi drug resistant *Pseudomonas aeruginosa*. *Virus Research*, 198250.
- Asif, M., Naseem, H., **Alvi, I. A.**, Basit, A., & Rehman, S. U. (2021). Characterization of a lytic EBP bacteriophage with large size genome against *Enterobacter cloacae*. *Apmis* <https://doi.org/10.1111/apm.13138>.
- **Alvi, I. A.**, Asif, M., Tabassum, R., Aslam, R., Abbas, Z., & Rehman, S. U. (2020). RLP, a bacteriophage of the family Podoviridae, rescues mice from bacteremia caused by multi-drug-resistant *Pseudomonas aeruginosa*. *Archives of Virology*, 1289-1297.
- Asif, M., **Alvi, I. A.**, Tabassum, R., & Rehman, S. U. (2020). TAC1, an unclassified bacteriophage of the family Myoviridae infecting *Acinetobacter baumannii* with a large burst size and a short latent period. *Archives of Virology*, 165(2), 419-424.
- **Alvi, I. A.**, Asif, M., Tabassum, R., Abbas, Z., & ur Rehman, S. (2018). Storage of Bacteriophages at 4 C Leads to no Loss in Their Titer after One Year. *Pakistan Journal of Zoology*, 50(6).
- Asif, M., **Alvi, I. A.**, & Rehman, S. U. (2018). Insight into *Acinetobacter baumannii*: pathogenesis, global resistance, mechanisms of resistance, treatment options, and alternative modalities. *Infection and Drug Resistance*, 11, 1249.
- Shafique, M., **Alvi, I. A.**, Abbas, Z., & ur Rehman, S. (2017). Assessment of biofilm removal capacity of a broad host range bacteriophage JHP against *Pseudomonas aeruginosa*. *Apmis*, 125(6), 579-584.
- Tabassum, R., Shafique, M., Khawaja, K. A., **Alvi, I. A.**, Rehman, Y., Sheik, C. S., & Abbas, Z. (2018). Complete genome analysis of a Siphoviridae phage TSK1 showing biofilm removal potential against *Klebsiella pneumoniae*. *Scientific reports*, 8(1), 1-11.
- Ahmad, J., Ahmad, F., Zareen, Z., Khalid, H., Akram, M. B., Khan, **Alvi, I. A.**, & Javed, S. (2021). Demographics and Critical Analysis of Smear-Positive Tuberculosis in District Abbottabad, Pakistan: Implementations for Future Challenges. *Pak-Euro Journal of Medical and Life Sciences*, 4(4), 319-326.
- Tabassum, R., Basit, A., **Alvi, I. A.**, & Asif, M. (2022). TSP, a virulent Podovirus, can control the growth of *Staphylococcus aureus* for 12 h. *Scientific reports*, 12(1), 1-12.

Workshops and Conferences

Organized 2 days conference on Current Approaches in Microbiology at Hazara University, Mansehra Venue Nathia Gali on 27-28 June 2013

Organized 1 day pre-conference workshop on phage propagation and isolation at Abbottabad University of Science and Technology, Abbottabad on 19 December 2016

Organized 2 days conference on Recent Trends in Microbiology at Abbottabad University of Science and Technology, Abbottabad Dec, 2016

Organized 2 Day Hands on Training Workshop on Advances in Phage Therapy at MMG, University of the Punjab 27-28 March 2017.

Organized 2 Day Hands on Training Workshop on Advances in Phage Therapy at Department of Microbiology, Hazara University, Mansehra on 4-5 April 2017