

# Curriculum Vitae

## Dr. Muhammad Shahzad

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### EDUCATION

- Ph.D. (2018-2024)**      **Molecular Biology**  
National Centre of Excellence in Molecular Biology, University of the Punjab Lahore  
Thesis title: *Forensic evaluation of STRs, mitochondrial DNA and methylation markers for trace evidence analysis*
- Fellowship (2019-2020)**      **Ph.D Fellowship**  
Department of immunology, Genetic & Pathology, Biomedical Centre, Uppsala University Sweden
- M.Phil. (2015-2017)**      **Molecular Biology & Forensic Science**  
Centre for Applied Molecular Biology, University of the Punjab Lahore, Pakistan  
Thesis title: *Genetic Variations of 30 Indels in Punjabi Population of Pakistan*
- M.Sc. (2004-2007)**      **Applied Chemistry**  
Chemistry Department, University of Engineering and Technology Lahore  
Dissertation title: *Comparative determination of Lead and Nickel in the blood sample of healthy and cancerous patients.*

### PROFESSIONAL EXPERIENCE

- Research Officer:**      April 2008 to September 2024  
Centre for Applied Molecular Biology  
University of the Punjab Lahore, Pakistan
- Assistant Professor:**      September 2024 to date at  
Centre for Applied Molecular Biology  
University of the Punjab Lahore, Pakistan

### PUBLICATIONS

- 1 **Shahzad, M.**, De Maeyer, H., Salih, G. A., Nilsson, M., Haratourian, A., Shafique, M., ... & Allen, M. (2024). Evaluation of Storage Conditions and the Effect on DNA from Forensic Evidence Objects Retrieved from Lake Water. *Genes*, 15(3), 279.
- 2 Bashir, S., Shafique, **M.**, **Shahzad**, M., Anjum, M. S., & Shahid, A. A. (2022). Exploring phenotypic Diversity of Human Iris Features and Skin Color in Punjabi and Khyber Pakhtunkhwa Population of Pakistan. *Pakistan Journal of Zoology*, 56(2), 551.
- 3 Shafique, M., Sajid, N., Aziz, Y., Afzal, **M.**, **Shahzad**, M., Shehzadi, A., ... & Shahid, A. A. (2022). Genetic data of 22 autosomal STR loci in Khyber-Pakhtunkhwa, Balochistan and Gilgit Baltistan population of Pakistan using PowerPlex® fusion system. *Legal Medicine*, 59, 102129.

- 4 Sajid a, Shafique M, **Shahzad M**, Ali Shahid A, 2021: Fingerprint Patterns and Ridge Density Variations In Pakistani Population: A Comparative Study. *Anthropologie (brno)* 59, 1: 1-.
- 5 Perveen, R., Shahid, A. A., Shafique, M., **Shahzad, M.**, & Akram, M. (2019). Kashmiris phylogenetic depictions through uniparental and biparental genetic markers. *International journal of legal medicine*, 1-2.
- 6 **Shahzad, M.**, Hussain, M., Shafique, M., Perveen, R., & Sheikh, N. (2019). Population genetic data of 30 insertion–deletion markers in Punjabi population of Pakistan. *International journal of legal medicine*, 1-2.
- 7 Batool, Z., Perveen, R., Sheikh, N., Khan, A. A., Ilyas, M., **Shahzad, M.**, & Kaleem, S. (2018). Genetic analysis of 15 autosomal STRs in Yousafzai population of Pakistan. *International journal of legal medicine*, 132(6), 1635-1636.
- 8 Khan, A. A., Perveen, R., Sheikh, N., Abbasi, B. H. A., Batool, Z., **Shahzad, M.**, & Kaleem, S. (2018). Genetic polymorphism of 15 autosomal short tandem repeats in Baloch population of Pakistan. *International journal of legal medicine*, 1-2.
- 9 Perveen, R., Shahid, A. A., Shafique, M., **Shahzad, M.**, & Husnain, T. (2017). Genetic variations of 15 autosomal and 17 Y-STR markers in Sindhi population of Pakistan. *International Journal of Legal Medicine*, 1-2.
- 10 Shafique, M., Shahzad, M. S., Rahman, Z., Shan, M. A., Perveen, R., **Shahzad, M.** & Husnain, T. (2016). Development of new PCR multiplex system by the simultaneous detection of 10 miniSTRs, SE33, Penta E, Penta D, and four Y-STRs. *International journal of legal medicine*, 130(6), 1409-1419.
- 11 Javed, Z., Ullah, M., Ashfaq, H. A., Shah, A. H., **Shahzad, M.**, Bilal, M., ... & Sadia, H. (2016). Role of MicroRNA in Endometrial Carcinoma. *Advancements in Life Sciences*, 4(1), 08-13.
- 12 **Shahzad, M.**, Shafique, M., Hussain, M., Shan, M. A., Perveen, R., Rehman, Z., & Idrees, M. (2016). Successful DNA Profiling for Identification of burnt Families from their bones using AmpFℓSTR Identifiler® Plus Kit. *Advancements in Life Sciences*, 3(2), 59-62.
- 13 Shan, M. A., Hussain, M., Shafique, M., **Shahzad, M.**, Perveen, R., & Idrees, M. (2016). Genetic distribution of 15 autosomal STR markers in the Punjabi population of Pakistan. *International journal of legal medicine*, 130(6), 1487-1488.
- 14 Shafique, M., Hussain, M., Shan, M. A., **Shahzad, M.**, Hussain, S., Hussain, N., & Iqbal, M. (2015). Genetic diversity of 15 autosomal STR loci in the population of Southern Punjab Pakistan. *Forensic Science International: Genetics*, 19, e1-e2.
- 15 Shan, M. A., Tahira, F., Shafique, M., Hussain, M., Perveen, R., **Shahzad, M.**, ... & Iqbal, M. (2015). Estimation of different biochemical intensities in drinking water from eastern region of Lahore city. *Advancements in Life Sciences*, 2(3), 131-134.

### **M.PHIL STUDENTS SUPERVISION**

I have supervised 15 M.Phil level students in the field of forensic Science and pharmacogenetics.

### **TEACHING EXPERIENCE**

- 1 FORENSIC SEROLOGY AND DNA ANALYSIS (MBFS-513)
- 2 FRONTIERS IN FORENSIC SCIENCE (MBFS-503)
- 3 FORENSIC CHEMISTRY AND TOXICOLOGY (MBFS-511)
- 4 PHARMACOGENETICS AND PHARMACOGENOMICS (MBFS-714)
- 5 MOLECULAR BIOLOGY TECHNIQUES (MBFS-514)

### **SKILL HIGHLIGHTS**

- Serology of Forensic Evidence Material
- DNA profiling (DNA extraction, quantification, amplification and Capillary electrophoresis).
- GeneMapper ID Software analysis for Human Identification
- Pyrosequencing
- Low copy Number DNA analysis
- DNA methylation analysis
- Clean Room working Practice for trace evidence analysis

### **AWARDS AND HONOUR**

- Indigenous faculty development Scholarship by Higher Education Commission Pakistan (Four Years).

### **EXPERT WITNESS IN COURT OF LAW**

- Civil Court Ferozwala Sheikhpura On 31.10.2013 In Case Fir 39/10
- District And Session Court Sheikhpura On 26.09.2012 In Case Fir 1499/10 Police Station Sadar Sheikhpura
- Anti-Terrorism, District And Session Court Multan On 19.04.2012 In Case Fir No. 570/11