

# Muhammad Shahzad

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## EDUCATION

- Ph.D.** Molecular Biology  
National Centre of Excellence in Molecular  
Biology, University of the Punjab Lahore
- Ph.D.**  
**Fellowship** Department of immunology, Genetic & Pathology  
Uppsala University Sweden
- M.Phil.** Molecular Biology & Forensic Science  
University of the Punjab Lahore, Pakistan  
Thesis title: 'Genetic Variations of 30 Indels in Punjabi Population of  
Pakistan'
- M.Sc.** Applied Chemistry  
University of Engineering and Technology Lahore Pakistan  
Dissertation title: 'Comparative determination of Lead and Nickel in the  
blood sample of healthy and cancerous patients.'
- B.Sc.** Botany, Zoology and Chemistry,  
Islamia College Civil Lines, University of the Punjab Lahore, Pakistan

## PROFESSIONAL EXPERIENCE

### **Research Officer: April 2008 to date**

Centre for Applied Molecular Biology University of the Punjab Lahore, Pakistan

I was involved in the DNA profiling process from the examination of the exhibits, isolation of DNA, results interpretation of DNA profiles/results, reporting and providing expert opinion in court of law. I was also trained in specialized laboratory techniques which target the retrieval of DNA from more challenging and compromised samples. I also take part in the research and development of new multiplex and population genetics studies. I have current focus on introduction of epigenetic approaches in forensic genetic and pharmacogenetic analysis.

**December 2019 to December 2020:** Ph.D Research fellowship at Uppsala University  
Sweden

## **PUBLICATIONS**

- 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-.
- 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.
- **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.
- 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.
- 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.
- 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.
- 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.
- 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.
- **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 AmpF $\mathcal{L}$ STR Identifiler $\mathcal{R}$  Plus Kit. *Advancements in Life Sciences*, 3(2), 59-62.
- 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.
- 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.

- 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.

### **SKILL HIGHLIGHTS**

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

### **AWARDS AND HONOUR**

- Higher Education Commission Pakistan Scholarship for Ph.D studies in Pakistan and abroad
- Publication incentive awards from University of the Punjab for the years 2015 to 2019