

## CURRICULUM VITAE

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### DR. MUHAMMAD ADNAN SHAN

Assistant Professor (*HEC Approved PhD Supervisor*)  
Centre for Applied Molecular Biology (CAMB)  
University of the Punjab, Lahore.



Mailing Address:

Centre for Applied Molecular Biology  
87-West Canal Bank Road  
Opposite SUPARCO Office, Samsani Road, Lahore-53700  
Cell: +92-322-4608681  
Email: [adnan.camb@pu.edu.pk](mailto:adnan.camb@pu.edu.pk), [adnan.shan@outlook.com](mailto:adnan.shan@outlook.com)

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### ACADEMIC QUALIFICATION

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| 2021 | <b>P.hD. (Forensic Medicine/Genetics)</b><br>Section of Forensic Genetics, Department of Forensic Medicine<br>University of Copenhagen, Copenhagen, Denmark. |
| 2014 | <b>M. Phil. (Molecular Biology)</b><br>National Centre of Excellence in Molecular Biology<br>University of the Punjab, Lahore, Pakistan.                     |
| 2006 | <b>M. Sc. (Applied Chemistry)</b><br>Department of Chemistry<br>University of Engineering and Technology, Lahore, Pakistan.                                  |
| 2002 | <b>B.Sc. (Zoology, Botany &amp; Chemistry)</b><br>Govt. Degree College Gujranwala,<br>University of the Punjab, Lahore, Pakistan.                            |

## **ACADEMIC/PROFESSIONAL APPOINTMENTS:**

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- **Assistant Professor** December 2021 – To date  
Centre for Applied Molecular Biology (CAMB),  
University of the Punjab, Lahore, Pakistan.
- **Research Officer** March 2008 – December 2021  
Centre for Applied Molecular Biology (CAMB),  
University of the Punjab, Lahore, Pakistan.
- **Assistant Research Officer** April 2006 – March 2008  
Centre for Applied Molecular Biology (CAMB),  
University of the Punjab, Lahore, Pakistan.
- **Internship Coordinator** May 2022 – To date  
Centre for Applied Molecular Biology (CAMB),  
University of the Punjab, Lahore, Pakistan.
- **Quality Assurance Officer** 2012 –2015  
Forensic DNA Typing Laboratory,  
Centre for Applied Molecular Biology (CAMB),  
University of the Punjab, Lahore, Pakistan.

## **TEACHING COURSES:**

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- Teaching M.Phil and Ph.D courses in forensic sciences at Centre for Applied Molecular Biology, University of the Punjab.

## **ACHIEVEMENTS/AWARDS:**

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- Awarded Overseas PhD Scholarship through University of the Punjab for PhD Studies at University of Copenhagen, Copenhagen, Denmark.
- Won the Punjab University Teacher`s Performance Evaluation Award for the year 2017.
- Certificate of appreciation for participating and excellent presentation in the 6th Invention to Innovation summit held at University of the Punjab, Lahore on March 8 - 9, 2017.
- Won the Punjab University Teacher`s Performance Evaluation Award for the year 2016.

- Provided DNA testing services in dead body identification, criminal and paternity cases to the law enforcement agencies and legal justice system (2006-2015).
- Court testimonies as a Forensic DNA expert.

### **MEMBERSHIP IN SCIENTIFIC/PROFESSIONAL ORGANIZATIONS:**

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- International Society of Forensic Genetics (ISFG) (2019-2021)
- Pakistan Science Mission (PSM)

### **PUBLICATIONS:**

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- **Shan MA**, Meyer OS, Refn M, Morling N, Andersen JD, Børsting C (2021). Analysis of Skin Pigmentation and Genetic Ancestry in Three Subpopulations from Pakistan: Punjabi, Pashtun, and Baloch. *Genes* 12(5): 733.
- Truelsen D, Tvedebrink T, Mogensen HS, Farzad MS, **Shan MA**, Morling N, Pereira V, Børsting C (2021). Assessment of the effectiveness of the EUROFORGEN NAME and Precision ID Ancestry panel markers for ancestry investigations. *Scientific Reports* 11(1): 18595.
- **Shan MA**, Børsting C, Morling N (2021). Forensic application and genetic diversity of 21 autosomal STR loci in five major population groups of Pakistan. *International Journal of Legal Medicine* 135:775-777.
- **Shan MA**, Mechlenborg J, Røgen R, Børsting C, Morling N (2021). Anthropological analyses of 30 insertion/deletion autosomal markers in five major ethnic groups of Pakistan. *Forensic Sciences Research*, DOI: 10.1080/20961790.2021.1933366.
- **Shan MA**, Refn M, Morling N, Børsting C, Pereira V (2019). Genetic portrait of the Punjabi population from Pakistan using the Precision ID Ancestry Panel. *Forensic Science International: Genetics Supplement Series* 7: 87-89.
- **Shan MA**, Hussain M, Shafique M, Shahzad MS, 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, Shahzad MS, Rahman Z, **Shan MA**, Perveen R, Shahzad M, Hussain 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.

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- Shahzad M, Shafique M, Hussain M, **Shan MA**, Perveen R, Ziaurehman, Idrees M (2016). Successful DNA Profiling for Identification of burnt Families from their bones using AmpF $\ell$ STR Identifiler $\text{\textcircled{R}}$  Plus Kit. *Advancements in Life Sciences* 3(2): 59-62.
  - Shafique M, Hussain M, **Shan MA**, Shahzad M, Hussain S, Hussain N, Ehsan F, Perveen R, Iqbal M (2015). Genetic diversity of 15 autosomal STR loci in the population of Southern Punjab Pakistan. *Forensic Science International: Genetics* 19: e1- e2.
  - Shafique M, Shahzad MS, **Shan MA**, Ali A, Rahman Z, Husnain T (2015). Genetic polymorphism of ten MiniSTR loci in the population of Punjab Pakistan for forensic application. *International Journal of Legal Medicine* 129: 937-942.
  - **Shan MA**, Tahira F, Shafique M, Hussain M, Perveen R, Shahzad M, Ehsan F, Ali Q, 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.
  - Perveen R, Rahman Z, Shahzad MS, Israr M, Shafique M, **Shan MA**, Zar MS, Iqbal M (2014). Y-STR haplotype diversity in Punjabi population of Pakistan. *Forensic Science International: Genetics* 9: e20-e21.

#### **INTERNATIONAL TRAININGS ATTENDED:**

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- A Training Course at Strand Analytical Laboratories, Indianapolis, Indiana, USA in DNA Short Tandem Repeat (STR) Analysis Using ABI 310 Genetic Analyzer from Sep. 10, 2007-Dec. 17, 2007.
- A Training Course at Strand Analytical Laboratories, Indianapolis, Indiana, USA in Expert Witness Testimony from Sep. 10, 2007-Dec. 17, 2007.
- A Training Course at Strand Analytical Laboratories, Indianapolis, Indiana, USA in Business Ethics from Sep. 10, 2007-Dec. 17, 2007.
- A Training Course at Strand Analytical Laboratories, Indianapolis, Indiana, USA in Sexual Harassment Awareness from Sep. 10, 2007-Dec. 17, 2007.

## **CONFERENCE/SYMPOSIA/SEMINARS ATTENDED OR PARTICIPATED:**

- Organized an awareness seminar on export of sensitive goods and technologies in collaboration with ministry of foreign affairs at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore on April 21, 2022.
- 4th International Symposium on Advances in Molecular Biology of Plants and Health Sciences held at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore on December 23-24, 2021.
- 28th International Congress of International Society of Forensic Genetics (ISFG) held at Prague, Czech Republic on September 09-13, 2019.
- Technology presented in the 6th Invention to Innovation summit 2017 held at University of the Punjab, Lahore on March 8 - 9, 2017.
- Hands on Training Workshop on Next Generation Sequencing (NGS) Data Analysis organized by COMSATS Institute of Information Technology, Islamabad on February 1-3, 2017.
- A DNA strategy Symposium organized by Punjab Forensic Science Agency (PFSA) in collaboration with British High Commission at PC Hotel Lahore on January 18-19, 2016.
- A Day with Biosafety conducted by National Centre of Excellence in Molecular Biology (CEMB), University of The Punjab, Lahore in collaboration with Congress of Molecular Biology and Gull's Associates on October 25, 2016.
- A lecture on Phen-Gen: combining phenotypes and genotypes to analyze rare disorders delivered by Dr. Asif Javed, Research Scientist at Genome Institute of Singapore held at National Centre of Excellence in Molecular Biology (CEMB), University of The Punjab, Lahore on November 02, 2016.
- A seminar & Hands on training on Advances in Nucleic Acid Technology organized by scientific supplies (PVT) Ltd. in collaboration with SANSURE Biotech Inc. held at Center for Applied Molecular Biology (CAMB), University of The Punjab, Lahore on September 01, 2016.

- International Symposium on Molecular Forensic: Emerging Trends at University of Health Sciences, Lahore, Pakistan on May 29, 2014.
- 1st National Conference on Integrated Role of Forensic Sciences in Criminal Justice System at The University of Lahore, Lahore, Pakistan on September 25, 2014
- International symposium on advances in Molecular Biology of Plants and Health Sciences at CEMB, University of the Punjab on December 29-31, 2015.
- A Seminar on Real time PCR results for Real time patient management at CAMB, University of the Punjab on 28th October 2015.
- Hands-on training of GeneXpert (Real time PCR system by Cepheid, USA) for Real time patient management at CAMB, University of the Punjab on 28th October 2015.
- An awareness seminar on Lungs and Bronchial Diseases conducted by Centre for Applied Molecular Biology (CAMB), University of the Punjab, in collaboration with Pakistan Chest Society and GULL'S Association on November 17, 2016.
- One day workshop on Young Researcher's Skill Development and NAYS Emerging Ideas Conference (NAYS-EIC) held on January 07, 2012 jointly organized by National Academy of Young Scientists (NAYS) Pakistan and Center of Excellence in Molecular Biology, Lahore, Pakistan.
- A Conference on DNA Day & NAYS-Emerging Ideas jointly organized by National Academy of Young Scientists (NAYS) Pakistan and Center of Excellence in Molecular Biology (CEMB), Lahore, Pakistan sponsored by The Emerging Nations Science Foundation (ENSF) on April 25, 2013.
- A Seminar on Evolution in Molecular Diagnostics at Center for Applied Molecular Biology (CAMB), University of the Punjab, Lahore on August 30, 2013.
- A Seminar on New Technology Tools and applications in Biological Research at Center for Applied Molecular Biology (CAMB), University of The Punjab, Lahore on September 27, 2013.

- 12th Shaukat khanum Cancer Symposium at Pearl Continental (PC) Hotel, Lahore, Pakistan on November 29 - December 1, 2013.
  
- A Training Workshop on Collection, Preservation and Dispatch of Evidence material in Sexual Assault organized by Center of Excellence in Molecular Biology (CEMB) and Center for Applied Molecular Biology (CAMB), Lahore, Pakistan on March 28, 2009.
  
- 11th Training Workshop on Modern Forensic Techniques for Crime Scene Search and Investigations, jointly organized by Strand Analytical Laboratories Indiana, USA and Center of Excellence in Molecular Biology (CEMB), Lahore, Pakistan on July 19, 2008.
  
- 10th Training Workshop on Modern Forensic Techniques for Crime Scene Search and Investigations, jointly organized by Cuyahoga County Coroner's Office, Cleveland, Ohio, USA and Center of Excellence in Molecular Biology (CEMB), Lahore, Pakistan on November 21-22, 2007.
  
- 9th Training Workshop on Modern Forensic Techniques for Crime Scene Search and Investigations, jointly organized by Strand Analytical Laboratories Indiana, USA and Center of Excellence in Molecular Biology (CEMB), Lahore, Pakistan on November 21-22, 2007.
  
- 7th Training Workshop on Modern Forensic Techniques for Crime Scene Search and Investigations, jointly organized by Strand Analytical Laboratories Indiana, USA and Center of Excellence in Molecular Biology (CEMB), Lahore, Pakistan on December 15-16, 2006.
  
- 6th Training Workshop on Modern Forensic Techniques for Crime Scene Search and Investigations, jointly organized by Forensic Laboratory, Indianapolis, Marion County, USA and Centre of Excellence in Molecular Biology (CEMB), Lahore, Pakistan on July 14-15, 2006.