

Centre for Applied Molecular Biology (CAMB)
University of the Punjab
87-west canal bank road, Thokar Niaz Baig,
Lahore-53700

MANZOOR HUSSAIN

Senior Research Officer /Asst.professor
Incharge Forensics and Diagnostic Laboratories

E-mail: mhussain76@hotmail.com
Phone office: 0423-5293141-46 Ext.193
Cell No.:03009415857

EDUCATION:

2002: M. Phil (Molecular Biology)- Grade: A
National Centre of Excellence in Molecular Biology (CEMB),
University of the Punjab, Lahore (Pakistan).

1999: M.Sc (Chemistry)- Division: 1st
University of the Punjab, Lahore.

1997: B.Sc. (Botany, Zoology, Chemistry) - Division: 1st
University of the Punjab, Lahore.

1995: F.Sc (Physics, Chemistry, Biology)- Division: 2nd
Govt.Degree College, satellite town Gujranwala.

1993: Matriculatio: Division:1st
Govt.High school, G.T road Gujranwala.

EMPLOYMENT RECORD:

January15, 2002 – June 30, 2007: **Research Officer** at Centre for Applied
Molecular Biology (CAMB)

July 01, 2007- continue: **Senior Research Officer/AP** at Centre for
Applied Molecular Biology (CAMB)

CURRENT RESPONSIBILITIES:

a. Forensic DNA section Incharge:

To provide Forensic DNA testing services to the law enforcement agencies and courts in criminal and paternity cases throughout Pakistan.

b. Molecular Diagnostic section Incharge:

To provide reliable, accurate and economical PCR based diagnosis of HCV & HBV to the general public.

c. Testifying the DNA test reports in the courts as needed.

- d. Commercialization and Entrepreneurship.
- e. Partnership and collaborations to increase the scope of work
- f. R&D activities to further strengthen the technologies.

NATIONAL TRAININGS:

1. Attended a training workshop on Forensic DNA Typing techniques at CEMB, jointly organized by Indianapolis Marion County, Forensic Services Agency, USA and CEMB Lahore from January 15-25, 2002.
2. A revolution in crime investigation. Attended a training workshop on Crime Scene Search and Modern Forensic Techniques in police investigation from January 12-17, 2003, jointly organized by Indianapolis Marion County, Forensic Services Agency, USA and CEMB, University of the Punjab Lahore.
3. Attended two days training workshop on “Planning, Establishing and Managing technology incubators” at NUST Islamabad on Nov 06-07, 2013

FOREIGN TRAININGS:

1. A Training Course on Forensic DNA STR analysis was successfully completed at Indianapolis Marion County, Forensic Services Agency, Indiana, USA from October 22, 2003 to January 14, 2004.
2. Three days introductory course on the use of LC-MS-MS was attended at Dubai Crime Laboratory in September 2006.
3. Four days training course was attended on “Application of Real Time PCR” in Forensic DNA analysis at Applied Biosystems Laboratory at Dubai in Nov. 2007

ANALYTICAL SERVICES PROVIDED:

Services provided	No. of tests/ cases (2011-14)	Revenue Generated (Rs. in Millions)
Forensic DNA analysis services were provided to the Law Enforcement Agencies & Courts	1920 cases including rape, murder, sodomy, blasts/ DBI, robbery /theft & paternity etc	21.097
Services of Molecular Diagnosis of HCV, HBV, TB etc were provided to different hospitals, laboratories and general public	26861 tests were performed including HCV, HBV qualitative, quantitative & genotyping etc.	72.281
Total		93.378 Millions

SCIENTIFIC SYMPOSIA/MEETINGS ATTENDED:

- I. Presented work in “An International symposium workshop on Molecular Biological research in Agricultural and Health Sciences from March 27-31, 2004 at National Centre of Excellence in Molecular Biology, Lahore.”
- II. Poster presentation on “Percentage Distribution of Hepatitis C virus genotypes in Lahore” in 11th PSBMB conference held at University of Punjab
- III. Being the member of Dengue group of Punjab University, attended series of seminars on Dengue Awareness and control measures held at Punjab University.
- IV. A symposium was attended on “The role of Research organizations, Academia & industry in the national development” held at PCSIR Lahore on 13.04.15
- V. A seminar was organized for the application of new technologies in the field of Molecular Biology in which Mr. Usama, technical expert of Bio-Rad from UAE delivered the lecture to the scientists of CAMB
- VI. Organized a seminar on “advancements in Molecular Biology” at CAMB in August 2013 in which Dr. Robert Rice, Director Asia Pacific-Qaigen delivered the lectures to the scientists of CAMB.
- VII. Organized a seminar on “New Technological tools and applications in biological research” at CAMB on 27.09.13 in which Dr. Ali Hourri and Mr. Usama Salameh from Bio-Rad Laboratories, USA delivered the lectures to the scientists of CAMB

PARTICIPATION IN THE EXHIBITIONS:

- I. Acted as focal person to present CAMB activities in the S&T Exhibition held at Dera Allah Yar & Usta Muhammad, Baluchistan on May 18-19, 2012. CAMB managed to display different posters, banners & brushers to create the awareness among the masses. The Centre also offered free services for screening of HCV & HBV in the people of that community.
- II. Presented CAMB highlights in the scientific summit “Invention & Innovation Summit-2012” organized by Pakistan Science Foundation (PSF) at University of the Punjab, Lahore on June 18, 2012. CAMB was declared as winner of the Invention & Innovation Summit-2012 and was awarded Winning Shield.
- III. Managed all the arrangements to present CAMB in the “Invention & Innovation Summit-2013” organized by Pakistan Science Foundation (PSF & IRP) at University of the Punjab, Lahore on April 9-10, 2013
- IV. Participated to present CAMB in “**DICE-2013, distinguished innovations, collaborations and Entrepreneurship**”, jointly organized by Pakistan Council for Science & Technology (PCST) and University of Gujrat at its Hafiz Hayat campus, Gujrat from 1-2nd October 2013. The event was organized to promote commercialization of innovation research and to strengthen the Academic- Industry Linkages and was being hosted in collaboration with “CONNECT” a British Council Initiative, HEC and many other stake holders.

- V. Managed as focal person to present CAMB in the science & technology exhibition organized by Ministry of Science & technology in the Punjab Youth Festival 2014 held at International Expo Centre, Lahore, on March 01-03, 2014. CAMB not only presented its products, services and activities through brushers, skins, backdrop etc but also offered free screening test of HCV and HBV to the young visitors.
- VI. Managed as focal person to present CAMB activities in the science & technology exhibition 2015 organized by Ministry of Science & technology at PCSIR Lahore on April 13, 2015.

MOUs SIGNED:

- a) Signed six MoUs for the opening of CAMB Diagnostic Collection centre in different cities of Pakistan.
- b) Signed an MoU with the Biological Waste-Management Unit (BWMU), Shalamar Hospital Lahore, for the proper disposal of the biological waste of CAMB.
- c) Coordinated to sign the revised MoU between Directorate of Breed Improvement, Livestock & Dairy Development Department, Government of Punjab and Centre for Applied Molecular Biology (CAMB) on 14-04-2013

PROJECTS:

- Worked as Project Director in the project entitled “Establishment of Forensic Services laboratory at CEMB” funded by Higher Education of Pakistan (37.99 Million Rupees).
- Worked as a Project Director in the project entitled “DNA Databank for crime Investigation” funded by Ministry of Science & Technology Pakistan (37.900 Million Rupees).
- Executed the Pak-US joint project entitled “Intensification of Forensic Services and research at CAMB”.
- Worked as Co-PI in the project entitled “Detection and Identification of Dengue Virus by rapid and cost effective RT PCR method.”

PUBLICATIONS:

1. Asif Nadeem, Masroor Elahi Babar, Manzoor Hussain, M. A. Tahir (2009); Development of Pentaplex PCR and genetic analysis of X chromosomal STRs in Punjabi population of Pakistan. Mol. Biol. Rep 36: 1671-1675
2. Muhammad Shafique, Muhammad Saqib Shahzad, uzma perveen, Rukhsana Perveen, Azim Ali, Manzoor Hussain, Zia ur Rehaman, Ahmad Ali Shahid, Tayyab Husnain (2015). Allele Frequency Distribution of 10 Mini STRs in Pashtun population of Pakistan; Int. J Legal Med, 129:467–468.

3. Muhammad Adnan Shan, Fazeelat Tahira, Muhammad Shafique, Manzoor Hussain, Rukhsana Peveen, Muhammad Shahzad, Farhana Ehsan, Muhammad Saqib Shahzad, Zia ur Rahman, Qurban Ali, Muhammad Iqbal (2015). Estimation of Different Biochemical Intensities in Drinking Water from Eastern Region of Lahore City.
Adv.Life.Sci 2(3). pp :131-134
4. Muhammad Shafique, **Manzoor Hussain**, Muhammad Adnan Shan, Muhammad Shahzad, Safdar Hussain Nazim Hussain, Farhana Ehsan, Rukhsana Perveen, Muhammad Iqbal (2015). Genetic Diversity of 15 autosomal STR loci in the population of southern Punjab of Pakistan. For.sci.In:Gen (Accepted Manuscript; DOI: <http://dx.doi.org/doi:10.1016/j.fsigen.2015.05.013>)

TRAININGS PROVIDED:

- a) Organized 11 training workshops for police officer, 02 for medico-legal lady doctors and 02 for judiciary and lawyers to promote the use of DNA technology in crime investigation in Pakistan.
- b) Two veterinary officers (Dr. Atia Bukhari & Dr. Fizza Khan) of Live Stock & Dairy Development Department, Punjab were trained on “DNA amplification through PCR and multiplexing techniques”.
- c) One week hands on training on “Forensic DNA Analysis for Human Identification” was provided to the 06 officials of Forensic Medicine Department of Bannu Medical College, KPK including Prof. Dr. Muhammad Humanyun, Head of Department of Forensic Medicine, BMC (May 12-16, 2014)
- d) Dr. Kamran Aziz, Associated Prof HEJ Karachi visited CAMB on Sep 29-30, 2014 and during his stay he was educated on Forensic DNA analysis for the future joint endeavors in Forensic DNA analysis at HEJ
- e) Two weeks training on “Forensic DNA analysis” was provided to Ms. Rabia Sultan, Research Associate, HEJ Karachi (Feb 23- March 06, 2015)

LECTURES DELIVERED IN DIFFERENT TRAINING WORKSHOPS:

1. Delivered lectures in 3rd training workshop on Crime scene search & Modern Forensic Techniques for crime Investigations from October 11-12, 2004 jointly organized by Indianapolis Marion County, Forensic Services Agency, USA and CAMB Lahore.”
2. Delivered lectures in 4th training workshop on Crime scene search & Modern Forensic Techniques for crime Investigations from January 10-11, 2005 jointly organized by Indianapolis Marion County, Forensic Services Agency, USA and CAMB Lahore.”

3. Delivered lectures in 5th training workshop on Crime scene search & Modern Forensic Techniques for crime Investigations from January 6-7, 2006 jointly organized by Strand Analytical Laboratories, USA and CAMB Lahore.”
4. Delivered lectures in 6th training workshop on Crime scene search & Modern Forensic Techniques for crime Investigations from July 14-15, 2006 jointly organized by Strand Analytical Laboratories, USA and CAMB Lahore.”
5. Delivered lectures in 7th training workshop on Crime scene search & Modern Forensic Techniques for crime Investigations from December 15-16, 2006 jointly organized by Strand Analytical Laboratories, USA and CAMB Lahore.”
6. Delivered lectures in 8th training workshop on Crime scene search & Modern Forensic Techniques for crime Investigations from July 18-19, 2007 jointly organized by Strand Analytical Laboratories, USA and CAMB Lahore.”
7. Delivered lectures in 9th training workshop on Crime scene search & Modern Forensic Techniques for crime Investigations from November 21-22, 2007 organized by CAMB Lahore.”
8. Delivered lectures in 10th training workshop on Crime scene search & Modern Forensic Techniques for crime Investigations from March 24-25, 2008 organized by CAMB Lahore.”
9. Delivered lectures in 1st training workshop on collection & preservation of evidence material in sexual assault cases held on July 19, 2008 organized by CAMB Lahore.”
10. Delivered lectures in 2nd training workshop on collection & preservation of evidence material in sexual assault cases held on July, 2009 organized by CAMB Lahore.”
11. Delivered lectures on “Role of DNA in crime investigation” in the police training workshop held at Counter Terrorism Department, Police training School, Chung Lahore on 28.12.2010
12. Delivered lectures to the police officers on “crime scene search and modern forensic techniques for crime investigation” in the police training workshop held at Counter Terrorism Department, Police training School, Chung Lahore on 10.05.11
13. Delivered lectures to the police officers on “crime scene search and modern forensic techniques for crime investigation” in the police training workshop held at Counter Terrorism Department, Police training School, Chung Lahore on 22.09.11.
14. Delivered lectures to the police officers on “crime scene search and modern forensic techniques for crime investigation” in the police training workshop held at Counter Terrorism Department, Police training School, Chung Lahore on 13.01.12
15. Delivered lectures to the police officers on “crime scene search and modern forensic techniques for crime investigation” in the police training workshop held at Counter Terrorism Department, Police training School, Chung Lahore on 27.01.12.

16. Delivered lectures on “DNA and its role in crime investigation” in the police training workshop organized by Police School of Information and Analysis, Chung, Lahore, on 25.04.2012.
17. Delivered lectures on “DNA and its role in crime investigation” in the police training workshop organized by Police School of Information and Analysis, Chung, Lahore, in August 2012

STAFF WORKING UNDER SUPERVISION:

- Research officers = 8
- Asst. Research Officer = 02
- Non scientific staff = 7

MISCELLANEOUS:

- Successfully obtained the institutional membership of Internal Society of Animal Genetics (ISAG), Champaign, USA
- Coordinator to Jockey Club of Pakistan for the parentage verification of Horses through DNA test.
- Focal person to PSF
- Facilitated the Director General CAMB for official matters /correspondence
- Member of Purchase Evaluation Committee, Management Committee, House Requisition Committee etc