

CURRICULUM VITAE

DR. MUHAMMAD FAROOQ SABAR

Assistant Professor

Incharge

Genomics Reserach Group & DNA Core Facility

Centre for Applied Molecular Biology

University of the Punjab

Lahore



Mailing Address:

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University of the Punjab

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ACADEMIC QUALIFICATION

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|-------------|--|
| 2012 | Postdoctoral Fellow (Cancer Molecular Genetics)
King Fahad National Centre of Children's Cancer, King Faisal Specialist Hospital & Research Centre, Al-Riyadh, Kingdom of Saudi Arabia |
| 2010 | Ph.D (Molecular Biology)
Centre of Excellence in Molecular Biology, University of the Punjab, Lahore
Thesis Title: Studies on the Physiological Effects of different Form of Therapeutic Alpha Interferons |
| 1994 | M.Sc. (Chemistry) University of the Punjab, Lahore |
| 1991 | B.Sc. (Phy, Chem, Stat) University of the Punjab, Lahore |

PROFESSIONAL POSITIONS:

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| 2015-Present | Assistant Professor/HOD
Centre for Applied Molecular Biology (CAMB), University of the Punjab, Lahore, Pakistan |
| 2007 – 2015 | Senior Research Officer/Assistant Professor/HOD
Centre for Applied Molecular Biology (CAMB), MoST, Lahore, Pakistan |

2000 –2007 **Research Officer/HOD**
Centre for Applied Molecular Biology (CAMB), MoST, Lahore, Pakistan

1996 – 2000 **Assistant Research Officer**
Centre for Applied Molecular Biology (CAMB), MoST, Lahore, Pakistan

ACHIEVEMENTS

Total Impact Factor: **107.249**

Total Citations: **≥400**

Commercial

1. **Commercialization of DNA Sequencing and genotyping** services in Pakistan
2. **Commercialization of DNA primers/oligos synthesis facility** within the country as well as abroad
3. Earned more than *100 million rupees* by providing the DNA analytical and synthesis services to researchers
4. **Analysis of millions of DNA samples** asked by different research groups of the country.
5. Focal Person for **CAMB Incubation/Display Centre** (Commercialization)- 2013-15

Services:

6. Letter of appreciation from **Commandant Armed Forces Institute of Pathology (AFIP), MH, Rawalpindi** for training and solving their long standing issues regarding analysis of their forensic samples in their institute
7. Rectification of Genetic Analyzer of Faculty of Life Sciences at **BUTEMS, Quetta**
8. Helped **UVAS, Lahore** in their DNA Sequencing facility issues.
9. Contributed in more than **1000 MPhil/PhD theses** from different universities of Pakistan
10. Provided **Technical help in DNA Sequencing and Genotyping** to researchers throughout Pakistan

Academics:

11. Prepared Applied Molecular Biology and Forensic Sciences curriculum for MPhil and PhD students at CAMB
 12. Teaching MPhil and PhD courses at CAMB
 13. Member review committee for BS, MS, MPhil and PhD Biochemistry and Molecular Biology curriculum of University of Central Punjab
 14. Detected genomic variants associations with asthma in Pakistani population.
 15. Postdoc on cancer genetics from King Faisal Specialist Hospital and Research Centre (KFSH&RC), KSA
 16. **Supervised PhD, MPhil and MS** scholars and trained many trainees
 17. Heading Genetic Diseases Research Group of CAMB
 18. Heading DNA sequencing group since 1999
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STUDENTS SUPERVISED

PhD:

1. Dr. Mariam Shahid (2015)

Shahid, M., Sabar, M. F., Rahman, Z. 2015. **Population based Case-Control Asthma Association Studies of Single Nucleotide Polymorphisms in Chromosome 17 Potential Genomic Regions.**

CEMB, University of the Punjab, Lahore, Pakistan

M.Phil:

2. Mr. Muhammad Usman Ghani (2014)

Ghani, M.U., Sabar, M. F., Ali, A. 2012. **A Study on Association of Genetic Variants in gene ADAM33 with Asthma in Local Population of Lahore Region, Pakistan.** University of Lahore, Lahore

3. Ms. Saadia Tabassum (2012)

Tabassum, S., Ahmad, H. and Sabar, M. F. 2012. Genetic elaborations of some ethnic groups of Hazara through X chromosome specific markers. M. Phil Thesis, Department of Genetics, Hazara University, Mansehra.

MS:

4. Ms. Sayeda Saadia Fatim Ali (2011)

Ali, S. S. F., Sabar, M. F. 2011. **Association Studies of Single Nucleotide Polymorphisms (SNPs) with Asthma in Pakistani Population.** University of Lahore, Lahore.

PUBLICATIONS IN IMPACT FACTOR JOURNALS

Total Publications = 26

Accepted = 02

2017:

1. Akram AM, Iqbal Z, Akhtar T, Khalid AM, Sabar MF, Qazi MH, Aziz Z, Sajid N, Aleem A, Rasool M, Asif M. (2017) Presence of novel compound BCR-ABL mutations in late chronic and advanced phase imatinib sensitive CML patients indicates their possible role in CML progression. *Cancer Biology & Therapy.* (IF-2.921) <http://tandfonline.com/doi/abs/10.1080/15384047.2017.1294289>
2. Sabar MF, Shahid M, Bano I, Ghani MU, Akram M, Awan FI, Kousar S, Iqbal Z, Altaf S, Husnain T. (2016) rs12603332 is associated with male asthma patients specifically in urban areas of Lahore, Pakistan. *Journal of Asthma.* (IF-1.854) <http://dx.doi.org/10.1080/02770903.2016.1277539>

2016:

3. Iqbal Z, Akram AM, Akhtar T, Aleem A, Sabar MF, Aziz Z, Sajid N, Rasool M, Asif M, Qazi MH, Oraibi S. Brief Research Report: Novel Compound BCR-ABL Mutations in Late Chronic Phase Imatinib Sensitive CML Patients Are Associated with Progression to Advance Disease Phase. *Blood.*128(22):3089 (IF-11.841) <http://www.bloodjournal.org/content/128/22/3089?sso-checked=true>

4. **Sabar MF**, Ghani MU, Shahid M, Sumrin A, Ali A, Akram M, Tariq MA, Bano I. (2016) Genetic variants of ADAM33 are associated with asthma susceptibility in the Punjabi population of Pakistan. *Journal of Asthma*; 53(04): 341-348 (**IF-1.854**)
<http://www.tandfonline.com/doi/abs/10.3109/02770903.2015.1124441>

2015:

5. Iqbal Z., Akram A.M., Akhtar T., Khalid M., Aziz Z., Aleem A., Gill A.T., Khalid A.M., Alanazi A., Shah I.H., Khalid M., **Sabar M.F.**, Iqbal M. (2015) High Frequencies of Compound BCR-ABL Mutations and Their Association with Imatinib Resistant, Disease Progression and Late Chronic Phase Disease in Pakistani Chronic Myeloid Leukemia Patients Necessitate the Inclusion of Molecular Testing in Routine Clinical Settings. *Blood* 126(23):5167-5167 (**IF-11.841**)
<http://www.bloodjournal.org/content/126/23/5167>
6. Iqbal, Z., Akhtar, T., Awan, T., Aleem, A., Sabir, N., Absar, M., Shamma, M.A., Shah, I. H., Khalid, M., Taj, A. S., Jameel, A., Alanazi, A., Gill, A. T., Hashmi, J. A., Hussain, A., **Sabar, M. F.**, Khalid, A. M., Qazi, M. H., Karim, S., Siddiqi, M. H., Mahmood, A., Iqbal, M., Saeed, A., Irfan, M. I., Rasool, M. (2015) High frequency and poor prognosis of late childhood BCR-ABL positive and MLL-AF4 positive ALL define the need for advanced molecular diagnostics and improved therapeutic strategies in pediatric B-ALL in Pakistan. *Molecular Diagnosis & Therapy* 19(5): 277-287. (**IF-2.602**)
7. Shahid, M., **Sabar, M. F.***, Bano, I., Rahman, Z., Iqbal, Z., Fatim Ali, S. S., Ghani, M. U., Iqbal, M. & Husnain, T. (2015). Sequence variants on 17q21 are associated with the susceptibility of asthma in the population of Lahore, Pakistan. *Journal of Asthma* 52(08):777-84. (**IF-1.854**)
<http://www.tandfonline.com/doi/full/10.3109/02770903.2015.1012590>
8. Rehman K., Tariq M.A., **Sabar M.F.** (2015) Allele frequency distribution of CYP2C19*2 allelic variants associated with clopidogrel resistance in cardiac patients of Pakistan. *Experimental and Therapeutic Medicine* 10(1): 309-315. (**IF-1.28**)
<http://www.spandidos-publications.com/etm/10/1/309>

2014:

9. Iqbal Z., Akhtar T., Akram A.M., Khalid M., Shah I.H., Aleem A., Khalid M., Iqbal J., Aziz. Z., Absar M., Hashmi J.A., Qazi M.H., Khalid A.M., **Sabar M.F.**, Karim S., Rasool M., Mahmood A., Gill A.T., Saglio G., Iqbal M. (2014). Detection of Compound BCR-ABL Mutations in TKI Resistant CML Patients Including a Novel K245N Mutation Associated with Primary Nilotinib Resistance By Employing a Newly Developed Cost Effective BCR-ABL Sequencing Protocol. *Blood* 124(21): 1810. (**IF-11.841**)
<http://www.bloodjournal.org/content/124/21/1810?sso-checked=true>

2013:

10. **Sabar, M. F.**, Kousar, S., Zafar, A. U., Shahid, M. (2013) PEG-Interferon Conjugates: Effects of Length and Structure of Linker. *Pakistan Journal of Pharmaceutical Sciences* 26(2): 425-430 (**IF-0.581**)
11. **Sabar, M. F.**, Awan, F.I., Shahid, M Ghani, M. U. and Yaqub, M. (2013). Synthesis and Bioactivity Study of 30KDa Linear PEG-Interferon and its Comparison with Tri-

2012:

12. Awan, T, Iqbal, Z , Aleem, A., Sabir, S., Absar, M., Rasool, M., Tahir, A.H., Basit, S., Khalid, A.M., **Sabar, M.F.**, Asad, S, Ali, A.S., Mahmood, A., Akram, M., Saeed, T., Saleem, A., Mohsin, D., Shah, I.H., Khalid, M., Asif, M., Haq, R., Iqbal, M., Akhtar, T. (2012) Five Most Common Prognostically Important Fusion Oncogenes are detected in majority of Pakistani Pediatric Acute Lymphoblastic Leukemia Patients and are strongly associated with disease biology and treatment outcome. Asian Pacific Journal Of Cancer Prevention 13(11):5469-5475. (IF-2.514)
13. Sabir, N., Iqbal, Z., Aleem, A., Awan, T., Naeem, T., Asad, S., Tahir, A.H., Absar, M., Hasanato, R.M.W., Basit, S., Chishti, M.A., Ul-Haque, M.F., Khalid, A.M., **Sabar, M.F.**, Rasool, M., Karim, S., Khan, M., Samreen, B., Akram, A.M., Siddiqi, M.H., Shahzadi, S., Shahbaz, S., Ali, A.S., Mahmood, A., Akram, M., Saeed, T., Saleem, A., Mohsin, D., Shah, I.H., Khalid, M., Asif, M., Iqbal, M., Akhtar, T. (2012) Prognostically Significant Fusion Oncogenes in Pakistani Patients with Adult Acute Lymphoblastic Leukemia and their Association with Disease Biology and Outcome. Asian Pacific Journal Of Cancer Prevention 13(7):3349-55 (IF-2.514)
14. Iqbal, Z., Noreen, S., Aamer, A., Tashfeen, A., Naeem, T., Sultan, A., Tahir, A. H, Absar, M., Chishti, M.A., Faiyaz -ul-Haque, M., Khalid, A. M., **Sabar, M.F.**, Rasool, M., Ali, A.S., Mahmood, A., Akram, M., Saeed, T., Arsalan, S., Mohsin, D., Shah, I.H., Khalid, M., Asif, M., Iqbal, M., Akhtar, T. (2012) Characterization of Common Fusion Oncogenes As Prognostic Molecular Identities in Adult Acute Lymphoblastic Leukemia Identifies the Need for Genetic Testing At Presentation, Molecular Prognostication and Differential Treatment. Blood 120: 5115. (IF-11.841)
<http://www.bloodjournal.org/content/120/21/5115.abstract>
15. Iqbal, Z., Noreen, S., Aamer, A., Tashfeen, A., Naeem, T., Sultan, A., Tahir, A. H, Absar, M., Chishti, M.A., Faiyaz -ul-Haque, M., Khalid, A. M., **Sabar, M.F.**, Rasool, M., Ali, A.S., Mahmood, A., Akram, M., Saeed, T., Arsalan, S., Mohsin, D., Shah, I.H., Khalid, M., Asif, M., Iqbal, M., Akhtar, T. (2012) Detection of Five Common Fusion Oncogenes in Pakistani Children with Acute Lymphoblastic Leukemia and Their Association with Clinical Pattern and Treatment Outcome. Blood 120: 5124. (IF-11.841)
<http://www.bloodjournal.org/content/120/21/5124.abstract?sso-checked=true>

2011:

16. Akbar, H., Idrees, M., Butt, S., **Sabar, M.F.**, Rehaman, I.U., Hussain, A., and Saleem, S. (2011) High base line interleukine-8 level is a independent risk factor for the achievement of sustained Virological response in chronic HCV patients. Infection, genetics and evolution. 11(6):1301-5 (IF-2.591)
17. Iqbal, T., Idrees, M., Ali, L., Hussain, A., Ali, M., Butt, B., Yousaf, M.Z. and Sabar, M.F. (2011) Isolation and characterization of two new Hepatitis E Virus Genotype 1 strains from two Mini-outbreaks in Lahore, Pakistan. Virology Journal. 8:94 (IF-2.362)

2010:

18. **Sabar, M. F.**, Yaqub, M., Khan, M. A., Ahmad, N., Ghani, M. U., Shahid, M. (2010) Synthesis of a new tri-branched PEG-IFN α 2 and its impact on anti viral bioactivity. International Journal of Peptide Research and Therapeutics 16(4):239–245. (IF-0.905)

2008:

19. Tariq, M.A., **Sabir, M.F.**, Riazuddin, S.A., Riazuddin, S. (2008) Haplotype analysis of two X-chromosome STR clusters in the Pakistani population. International Journal Of Legal Medicine 123(1):85-7. (IF-0.87)
20. Riazuddin, S., Nazli, S., Ahmed, Z.M., Yang, Y., Zulfiqar, F., Shaikh, R.S., Zafar, A.U., Khan, S.N., **Sabar, F.**, Javid, F.T., Wilcox, E.R., Tsilou, E., Boger, E.T., Sellers, J.R., Belyantseva, I.A., Riazuddin, S., Friedman, T.B. (2008) Mutation spectrum of MYO7A and evaluation of a novel nonsyndromic deafness DFNB2 allele with residual function. Human Mutation 29(4):502-11. (IF-5.089)

2005:

21. Zhang, Q., Zulfiqar, F., Xiao, X., Riazuddin, S.A., Ayyagari, R., **Sabar, F.**, Caruso, R., Sieving, P.A., Riazuddin, S., Hejtmancik, J.F. (2005) Severe Autosomal Recessive Retinitis Pigmentosa Maps to Chromosome 1p13.3-p21.2 between D1S2896 and D1S457 but Outside ABCA4. Human Genetics 118(3-4):356-65 (IF-5.138)
22. Riazuddin, S.A., Yasmeen, A., Zhang, Q., Yao, W., Sabar, M.F., Ahmad, Z., Riazuddin, S. and Hejtmancik, J.F. (2005). A New Locus for autosomal recessive nuclear cataract mapped to chromosome 19q13 in a Pakistani Family. Investigative Ophthalmology and Visual Science 46, 623-626. (IF-3.427)
23. Zhang, Q., Zulfiqar, F., Xiao, X., Riazuddin, S.A., **Sabar, F.**, Caruso, R., Sieving, P.A., Riazuddin, S. and Hejtmancik, J.F., 2005. Locus (RP30) for Severe Recessive Retinitis Pigmentosa Maps to Chromosome 1p13. 3–p21. 2 Between D1S2896 and D1S457 but Outside ABCA4. Investigative Ophthalmology & Visual Science, 46(13):2291-2291. (IF-3.427)

2003:

24. Ahmed, Z.M., Riazuddin, S., Ahmad, J., Bernstein, S.L., Guo, Y., **Sabar, M.F.**, Sieving, P., Riazuddin, S., Griffith, A.J., Friedman, T.B., Belyantseva, I.A., Wilcox, E.R. (2003) PCDH15 is expressed in the neurosensory epithelium of the eye and ear and mutant alleles are responsible for both USH1F and DFNB23. Human Molecular Genetics 15; 12(24):3215-23. (IF-5.985)

PUBLICATIONS IN HEC RECOGNIZED JOURNALS:

25. Ghani MU, **Sabar MF**, Shahid M, Awan FI, Akram M. (2017) A report on Asthma Genetics Studies in Pakistan. Advancements in Life Sciences. Adv. Life Sci. 4(2): 33-38. (review article)
26. **Sabar M.F.**, Ghani M.U., Shahid M., Sumrin A., Ali A., Akram M., Awan FI, Tariq M.A. (2015) Genetic association of ADAM33'S SNP variants with asthma in the population of Lahore region, Pakistan. Asian J Agri Biol., 03(Special Issue): p. 57

ACCEPTED PUBLICATIONS:

27. Imran A, Qamar HY, *Ali Q, Naeem H, Riaz M, Amin S, Kanwal N, Ali F, ***Sabar MF**, Nasir IA. (2017) Role of Molecular Biology in Cancer Treatment. Iranian Journal of Public Health
 28. **Sabar MF**, Akram M, Awan FI, Ghani MU, Shahid M, Iqbal Z, Kousar S. (2017) Awareness of Asthma Genetics in Pakistan: A Review with Some Recommendations. Advancements in Life Sciences. **ALS-2016-295-1060-3-SM**
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CONFERENCE ABSTRACTS:

PAPER/ ABSTRACT/POSTER PRESENTATION:

1. **Muhammad Farooq Sabar**, Muhammad Usman Ghani, Farheena Iqbal Awan, Mariam Shahid, Muhammad Akram and Iqbal Bano (2017). Role of Genomic Variants in the predisposition of Asthma in Pakistani Patients. Proceedings of 3rd International Conference on Biotechnology, USA journal of R&D, Page 58
 2. **Muhammad Farooq Sabar** (2016). *Genomic Variants Associated with Asthma in Pakistan*. Awareness Seminar on Lungs and Bronchial Diseases
 3. **Muhammad Farooq Sabar** (2015). *Genomics Associated with Asthma in Pakistan*. International Symposium on Advances in Molecular Biology of Plant and Health Sciences, CEMB, PU, Lahore. ALS Abstract Book, Page 42.
 4. **Muhammad Farooq Sabar**, Muhammad Usman Ghani, Mariam Shahid, Aleena Sumrin, Amjad Ali, Muhammad Akram, Muhammad Akram Tariq (2015). Genetic Association of ADAM33's SNP variants with Asthma in the Population of Lahore Region, Pakistan. 4th international molecular biology and biotechnology congress & conference on life sciences research 2015. Isra University, Islamabad. MBB06.
 5. Shahid M., **Sabar M.F.**, Rahman Z., Bano I., Ghani M.U., Kousar S., Akram M., Husnain T. (2015). Urbanization triggers asthma in 'C' allele carriers for rs12603332 European Academy of Allergy and Clinical Immunology (EAACI), P04, Istanbul, Turkey (https://www5.shocklogic.com/scripts/jmevent/programme.php?client_Id=EAACI&project_Id=ASIST15). The poster won the travel grant.
 6. Shahid, M., **Sabar, M. F.**, Bano, I., Rahman, Z., Iqbal, Z., Ali, S. S., Ghani, M. U., Iqbal, M., Husnain, T. (2014). Chromosome 17q21 is Associated with Asthma in the Population of Lahore, Pakistan. International Conference "Emerging Trends in Life Sciences for Sustainable Development" held at FC College University, Lahore
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GENEBANK (NCBI) SUBMISSIONS OF DNA SEQUENCES:

Following are the accession numbers of sequences submitted to GenBank database (**Total 18 sequences**)

1. PCDH15 Gene:

Accession Numbers:

AY388963.1

2. Cytochrome b gene Pakistani water buffalo (Nili-Ravi breed)

Accession Numbers:

JF946524.1, JF946522.1, JF946520.1, JF946525.1, JF946523.1, JF946521.1, JF946519.1

3. Hepatitis E virus:

Accession Numbers:

FJ959398.1, FJ959399.1

4. Hepatitis C virus:

Accession Numbers:

GU736411.1, GU736410.1, GQ300882.1, GQ325251.1, GQ898898.1, GQ451336.1

5. Hepatitis B Virus:

Accession Numbers:

FJ966118.1, FJ966116.1

FOREIGN TRAININGS:

1. (2002) DNA sequencing and genotyping on ABI-310 and 3100 machines (Switzerland)
 2. (2002) Human Identification analysis using DNA forensic techniques (Identifiler kit) on ABI-machines (Switzerland)
 3. (2005) Synthesis of recombinant interferon and its PEGylation (ICGEB-Italy)
 4. (2006) DNA sequencing and gene mapping on ABI-3730 machine (UK)
 5. (2007) Real Time PCR of ABI (Dubai)
 6. (2010) Training workshop on ABI Next Generation DNA Sequencer “SOLiD” (Germany)
 7. (2011-2012) Postdoctoral Fellowship training on cancer genetics and mutation screening (King Faisal Specialist Hospital and Research Centre, Al-Riyadh, Saudi Arabia)
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WORKSHOP ATTENDED/LECTURES DELIVERED:

1. (2006) Bioforums at CAMB/CEMB campus
2. (2008) Delivered a lecture on DNA sequencing at CAMB/CEMB in a Bioforum at CAMB/CEMB campus
3. (2007) Workshop on proteomics at MMG, PU, Lahore
4. (2009) Research tools in proteomics, organized by National Centre for Proteomics, University of Karachi
5. (2013) **Planning, Establishing and Managing Technology Incubators.** A two days training workshop at NUST, Islamabad; organized by Ministry of Science and Technology
6. (2014) Delivered a presentation entitled “Chromosome-17q21 SNPs are Associated with Asthma in Lahore Pakistan” in an international conference on “Emerging Trends in Life Sciences for Sustainable Development” at FC College University, Lahore
7. (2015) Presented a paper entitled “Genetic Association of ADAM33’s SNP variants with Asthma in the Population of Lahore Region, Pakistan.” in 4th international molecular biology and biotechnology congress & conference on life sciences research 2015 held at Isra University, Islamabad.
8. (2016) Delivered a lecture on “Genomic Variants Associated with Asthma in Pakistan”. In a one day awareness seminar on “Lungs and Bronchial Diseases” at CAMB, PU, Lahore
9. (2016) A 3 days Workshop on “Drug Discovery and Development” held at COMSATS Institute of Information Technology, Islamabad.

10. (2017) Two days training workshop on “Writing Winning Research Proposals” held at COMSATS Institute of Information Technology, Islamabad.
11. (2017) Presented data on “Role of Genomic Variants in the predisposition of Asthma in Pakistani Patients” in 3rd International Conference on Biotechnology at University of South Asia, Lahore

MEMBERSHIP OF INTERNATIONAL SOCIETIES:

1. **American Chemical Society**
 2. **Congress of Molecular Biology** (Executive member)
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REVIEWER OF INTERNATIONAL SCIENTIFIC JOURNALS:

1. Journal of Asthma
 2. International Journal of Peptide Research and Therapeutics
 3. Journal of Chemical Society of Pakistan
 4. Pakistan Journal of Pharmaceutical Sciences
 5. Molecular and Cellular Biochemistry
 6. Expert Review of Respiratory Medicine
 7. Molecular Biosystems etc.
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ADMINISTRATIVE/MANAGEMENT EXPERIENCE:

Served or serving

1. Member CAMB Executive Committee, headed by Secretary, Ministry of Sc.&Tech.
 2. Govt. of Pakistan (2010-2015). (The committee was supreme governing body of CAMB)
 3. Chairman CAMB Purchase Evaluation Committee (2010-2011 & 2013-2015)
 4. Member departmental Purchase Evaluation Committee (2015-continued)
 5. Chairman CAMB Management Committee (2010-2011)
 6. Chairman CAMB Maintenance Committee (2010-2011)
 7. Chairman Technical Evaluation Committee (2012-2015)
 8. Member Technical Evaluation Committee (2015- continued)
 9. Chairman CAMB Departmental Inquiry Committees (2010-2015)
 10. Head of CAMB DNA Core Facility (2000-continued)
 11. Member Adhoc Board of Studies of CAMB, University of the Punjab (2015-continued)
 12. Member Faculty Board, Faculty of Life Sciences (PhD, MPhil, MS, BS), UCP, Lahore (2015-continued)
 13. Member Departmental Doctorate Program Committee (DDPC) of CAMB, PU, Lahore (2015-continued)
 14. Coordinator MPhil studies program “Molecular Biology and Forensic Sciences” at CAMB, PU (2017-continued)
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CURRENT POSITION:

2007 – Present

Assistant Professor/HOD

DNA Core Facility, Centre for Applied Molecular Biology (CAMB)
University of the Punjab
Lahore, Pakistan

January 2017:

Coordinator MPhil Studies at CAMB PU

TEACHING:

- Teaching molecular biology and forensic sciences courses to MPhil and PhD scholar
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PROJECTS/ TASKS:

1. Establishment of DNA Sequencing lab (1999) CAMB/CEMB, Lahore.
 2. Establishment of DNA synthesis lab (2006) CAMB/CEMB, Lahore.
 3. Developed PEGylation of recombinant proteins Technology at CAMB
 4. Population studies for Forensic investigation purpose
 5. Trained researchers from Breed Improvement, Live Stock department of Punjab in genotyping and parentage analysis of cattle.
 6. Completed a project of DNA analysis for breed improvement from the department of Breed Improvement and Live Stock, Punjab.
 7. Studies on the Associations of Single Nucleotide Polymorphisms (SNPs) with Asthma Disease in Pakistani Population. (PhD, MPhil and MSc students have completed thesis on this project)
 8. One Assistant Professor IPFP has also worked under my supervision on asthma genetics project. (HEC funded project)
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POINEER OF AUTOMATED DNA SEQUENCING IN PAKISTAN:

1. Started Sanger technology based automated DNA sequencing and DNA primer/oligos synthesis first time in Pakistan
 2. Managing and maintaining DNA Core facility of CAMB since 1999.
 3. PCR and single base extension sequencing multiplex system developed for the identification of SNP
 4. Conducting studies on genomic variant associations with asthma disease
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PROCESS & TECHNOLOGY DEVELOPMENT:

1. Established first state of the art lab for DNA Sequencing and Genotyping in Pakistan. This setup later made the basis of DNA Forensic Labs, first time in Pakistan
 2. Established DNA primer synthesis setup first time in Pakistan
 3. Process for the modification (PEGylation) of interferon alpha with a novel PEG molecule, its purification and bioactivity testing was developed.
 4. Establishment of Single Base Extension (SBE) sequencing setup
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TECHNICAL AND ANALYTICAL SERVICES:

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1. Providing DNA sequencing, genotyping and synthesis services to the researchers and academia of almost all universities and R&D organizations of the country. Technical services in these fields are also being rendered. (1999-to date)
 2. Letter of appreciation from **Commandant Armed Forces Institute of Pathology (AFIP), MH, Rawalpindi** for identifying and solving their long standing problem in the analysis of their forensic samples in their institute.
 3. Trained researchers from different organizations of the country including Punjab Live Stock department on DNA sequencing and genotyping
 4. Helped approximately 1000 students in their PhD/MPhil theses.
 5. Analyzed more than 10,00,000 DNA samples in the lab and synthesized approximately 400,000 nucleotides as DNA primers locally in the lab
 6. Spirometry (Lungs Function Test)- just starting
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BRIEF INTRODUCTION:

Dr. Muhammad Farooq Sabar after joining CAMB in 1996 established the first DNA sequencing/genotyping lab of Pakistan in 1999. He contributed in many research projects by providing the quality DNA genotyping/sequencing analysis data and has trained indigenous manpower in the field. New loci/genes for genetic diseases have been identified in his labs. Data for thousands of DNA profiles has been generated by his group in murder, rape, bomb blast and other criminal cases. He has contributed in more than 500 research publications and hundreds of PhD/MPhil theses. He has earned more than 104 impact factor and 400 citations through 25 quality data publications.

As a HoD, Dr. Farooq offered DNA sequencing/genotyping and synthesis in 2005 throughout the country and abroad. He also got HEC sponsorship and has earned more than Rs.100 Millions for the department through these services. He is helping researchers/academicians in genomics analyses throughout the country. Due to DNA analysis facility in his lab and his expertise in the field, first DNA forensic lab of Pakistan was also established at CAMB. Besides this, during his PhD (2010) he produced a unique tri-branched PEG-IFN (HCV medicine) which exhibited better therapeutic properties than linear/di-branched PEG-IFNs.

During Postdoc fellowship, he worked on cancer genetics at KFSH&RC, KSA. Currently, along with teaching MPhil/PhD students, he is investigating contribution of genomic variants in asthma development in Pakistan. In his recent research publications, he has reported genomic regions associated with asthma and specifically some variants associated with asthma in specific environment. Being HEC approved supervisor he has **supervised one PhD, one MPhil and one MS on asthma studies** and one MPhil on population genetics. In future plans, he intends to study molecular biology of asthma and other genetic diseases in detail. The outcome of the research may be commercialized in future.