



CURRICULUM VITAE

Dr. SABIKA FIRASAT

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ACADEMIC QUALIFICATION

2013-2014	Post-doctorate (Molecular Cell Biology) Institute of Clinical Chemistry / UMG-Laboratories, Georg August University, Göttingen, Germany.
2006-2009	Ph.D. (Molecular Biology (Specialization in Human Genetics)) Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan.
2004-2006	M.Phil. (Molecular Biology (Specialization in Human Genetics)) Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan.
2001-2003	M.Sc. (Zoology) Department of Zoology, University of the Punjab, Lahore, Pakistan.

PROFESSIONAL EXPERIENCE

Sep 2021- to-date	Associate Professor Department of Zoology, Faculty of Biological Sciences, Quaid-i-Azam University, Islamabad, Pakistan (www.qau.edu.pk)
Oct 2015- to-Sep 2021	Assistant Professor Department of Zoology, Faculty of Biological Sciences, Quaid-i-Azam University, Islamabad, Pakistan (www.qau.edu.pk)
Aug 2013 – Sep 2014	DAAD Post-doctoral Fellow Clinical Proteomics Group, Institute of Clinical Chemistry/UMG- Laboratories, Georg August University, Göttingen, Germany. (www.uni-goettingen.de)
Apr 2011- Sep 2015	Assistant Professor Department of Biosciences, University of Wah, Wah Cantt, Pakistan (www.uow.edu.pk)
Mar 2009- Jul 2009	Post-doctoral Fellow Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan (www.cemb.edu.pk)

STUDENTS SUPERVISION

M.Phil

1. Aleesha Asghar. Analysis of risk factors and association of a single nucleotide polymorphism with gestational diabetes in cases presented at DHQ, Chakwal. (Degree awarded 2022)
2. Iram Shahzadi. Analysis of non-genetic risk factors and Fok I polymorphism of Vitamin D Receptor Gene in etiology of preeclampsia cases presented at CMH, Muzafarabad. (Degree awarded 2022)
3. Tayyaba Shan. Risk factors analysis and association of CDKAL1 polymorphism with gestational diabetes in cases presented at Wah general hospital, Wah Cantt. (Degree awarded 2022)
4. Mudassar Raza Shah. Molecular genetic analysis of retinitis pigmentosa segregating inbred families from D.I.Khan.(Degree awarded 2021).
5. Muhammad Tufail. Mutational analysis of selected exons of XPC gene in Xeroderma Pigmentosum patients. (Degree awarded 2021).
6. Sara Khazeema. Genotype phenotype correlation of *SLC4A11* mutations using in silico tools. (Degree awarded 2021).
7. Awab Gul. In silico analysis of reported disease-causing mutations of *BRCA1* gene in Pakistani patients. (Degree awarded 2021).
8. Kiran Fatima. Sequencing of Exon 10 and 11 of GBA gene in two inbred families with Gaucher disease. (Degree awarded 2020).
9. Anam Arooj. *CYP11B1* gene analysis in primary congenital glaucoma cases from Balochistan and Khyber Pakhtunkhwa. (Degree awarded 2019).
10. Aroosa Awan. Molecular analysis of breast cancer cases presented at Shifa International Hospital, Islamabad. (Degree awarded 2019).
11. Fatima Akbar. Mutational analysis of selected exons of *IDUA* gene in Mucopolysaccharidosis type I patients. (Degree awarded 2019).
12. Raeesa Tehreem. Clinical profile and molecular analysis of *ATP7B* gene in Wilson disease patients. (Degree awarded 2019).
13. Dur-e-Shawar. Incidence of corneal dystrophies in children visiting Al-Shifa trust eye hospital and mutational screening of *SLC4A11* in familial congenital hereditary endothelial dystrophy patients. (Degree awarded 2019).
14. Nousheen. Molecular screening of selected *BRCA1* mutations in breast cancer patients from South Punjab, Pakistan. (Degree awarded 2019).
15. Dil Nawaz. Genetic analysis of consanguineous Pakistani families with Glycogen Storage Disease type Ia. (Degree awarded 2019).
16. Waheed Ahmad. Analysis of *BRCA1* gene mutations in breast cancer patients from southern Punjab Population. (Degree awarded 2018).
17. Muhammad Atif Sikander. Molecular analysis of Retinoblastoma cases presented at Lady Reading hospital, Peshawar. (Degree awarded 2018).
18. Bushra Javed. Mutational analysis of selected exons of *BRCA1* gene in ovarian cancer patients from local population. (Degree awarded 2018).
19. Muhammad Shahid. Molecular Analysis of *FANCA* gene in Fanconi Anaemia Patients. (Degree awarded 2018).

20. Bashir Ahmed. Molecular Analysis of Exon 3 of *CYP1B1* Gene in Primary Congenital Glaucoma Patients. (Degree awarded 2018).
21. Nuzhat Noor. Molecular Analysis of Obstetric Cholestasis Cases Presented at Holy Family Hospital, Rawalpindi. (Degree awarded 2018).
22. Bushra Noreen. Mutational Analysis of Selected Exons of *SLC4A11* Gene in Congenital Hereditary Endothelial Dystrophy Patients. (Degree awarded 2018).
23. Misbah Shahzadi. Molecular Genetic Study of Microspherophakia in consanguineous Pakistani Families. (Degree awarded 2017).
24. Rabia Afzal. Mutational Analysis of *CYP1B1* in Primary Congenital Glaucoma Patients. (Degree awarded 2017).

M.Sc & B.S (Hons):

1. Shah Bano Hashmi. Study of congenital neurological disorders in cases presented at PIMS, Islamabad during March-April 2021 and hands on experience of molecular biology techniques. (Degree awarded 2021).
2. Syeda Shadaba Batool Naqvi. Study of congenital heart defects in children presented at PIMS during March-April 2021 and hands-on experience with molecular biology techniques. (Degree awarded 2021).
3. Shanza Saghir. Study of inherited eye disorders and hands on experience of Molecular Biology techniques. (Degree awarded 2021).
4. Fiza Safdar. Study of inherited eye diseases in Faisalabad division and hands-on experience of molecular biology techniques. (Degree awarded 2021).
5. Nimra Mukhtar. Study of Congenital Gastrointestinal Anomalies in Children Hospital PIMS Islamabad during March -April 2021 along with practice of molecular biology techniques. (Degree awarded 2021).
6. Muhammad Tahir Iqbal Khan. Use of polymerase chain reaction for amplification of exon 2 of *CYP1B1* in primary congenital glaucoma patients from Dera Ismail Khan. (Degree awarded 2020).
7. Sadaf Saeed. Amplification of selected polymorphism/s containing region of vitamin D receptor gene by polymerase chain reaction with sequence-specific primers in skin cancer patients. (Degree awarded 2020).
8. Tahira Bibi. Amplification of exon 13 of *BRCA1* gene by polymerase chain reaction with sequence-specific primers in ovarian cancer patients. (Degree awarded 2020).
9. Muhammad Shoaib Khan. Use of polymerase chain reaction for amplification of exon 14 of *BRCA1* gene in breast cancer patients for mutation detection. . (Degree awarded 2020).
10. Nadia Sarwar. Prevalence of gestational diabetes (GDM) and its maternal and neonatal complications in Jalozai refugee camp, Peshawar, KPK. (Degree awarded 2012).
11. Zainab Akhtar. Prevalence of different risk factors for myocardial infarction especially diabetes mellitus in local population. (Degree awarded 2012).
12. Nazia Shaheen. Study on the prevalence of pre-eclampsia cases in local population. (Degree awarded 2012).
13. Fozia Sultana. Study on prevalence of inherited retinitis pigmentosa cases. (Degree awarded 2011).
14. Aalia Meh Jabeen. Study of different etiologies of congenital cataract and prevalence of hereditary cases. (Degree awarded 2011).

PUBLICATIONS

S. No	Publication	Impact Factor
1.	Gul, B., Firasat, S. , Tehreen, R., Shan, T and Afshan, K. (2022). Analysis of Wilson disease mutations in copper binding domain of ATP7B gene. PLOS ONE 17(6): e0269833. https://doi.org/10.1371/journal.pone.0269833	3.752
2.	Naz, S., Ibrahim, N., Sharif, S., Bashir, N., Sajjad, E., Asghar, I., Irshad, S., Firasat, S. , Kaul, H. and Sarwar, S., 2021. Prevalence and Association of Different Levels of Intellectual Disability with Prenatal, Perinatal, Neonatal and Postnatal Factors: Prevalence and association of levels of ID. Proceedings of the Pakistan Academy of Sciences: B. Life and Environmental Sciences, 58(3), pp.75-82.	0.41
3.	Shahid, M., Azfaralariff, A., Zubair, M., Ahmed Najm, A., Khalili, N., Law D., Firasat, S. , Fazry, S. (2022) In silico study of missense variants of FANCA, FANCC and FANCG genes reveals high risk deleterious alleles predisposing to Fanconi anemia pathogenesis. Gene. DOI: 10.1016/j.gene.2021.146104.	3.688
4.	Komal, M., Afshan, K., Firasat, S. , Fuentes, M.V. (2021) Molecular identification of Paramphistomum epiclitum (Trematoda: Paramphistomidae) infecting buffaloes in an endemic area of Pakistan. <i>The Thai Journal of Veterinary Medicine</i> , 51(3), 431–439.	0.28
5.	Afshan, K., Ahmad, I., Komal, M., Firasat, S. , Khan, I. A., Qayyum, M. (2021) Diagnostic Efficacy of Copro-ELISA for Detection of Fasciolosis in Cattle and Buffaloes in Punjab Province, Pakistan. <i>Kafkas Univ Vet Fak Derg</i> 27 (4): 533-538.	0.43
6.	Firasat, S. , Shavar, D., Khan, W. A., Sughra, U., Nousheen., Kaul, H., Naz, S., Naureen, B., Gul, R., Afshan, K. (2021). <i>SLC4A11</i> mutations causative of congenital hereditary endothelial dystrophy (CHED) progressing to Harboyan syndrome in consanguineous Pakistani families. <i>Molecular Biology Reports</i> . 48(11):7467-7476.	2.316
7.	Ahmad, W., Firasat, S. , Akhtar, M.S., Afshan, K., Jabeen, K., Amjad, R.A. (2021). Demographic variation and risk factors regarding breast cancer among female in Southern Punjab, Pakistan. Accepted for publication in <i>Journal of Pakistan Medical Association</i> . 71 (7),1749-1756.	0.573
8.	Noor, N., Firasat, S. , Bano, N., Afshan, K., Gul, B., Kaul, H. (2021). Frequency, clinical profile and screening of exon 6 and 14 of ABCB4 gene in obstetric cholestasis patients presented at a tertiary care hospital in Rawalpindi, Pakistan. <i>Journal of Pakistan Medical Association</i> . 71(6), 1633-1638.	0.573
9.	Khan, M.A., Afshan, K., Nazar, M., Firasat, S. , Chaudhry, U., Sargison, N.D. (2021). Molecular confirmation of <i>Dicrocoelium dendriticum</i> in the Himalayan ranges of Pakistan. <i>Parasitology International</i> . 81, 102276.	1.866
10.	Shahzadi, M., Firasat, S. , Kaul, H., Afshan, K., Afzal, R., Naz, S. (2020). Genetic mapping of autosomal recessive microspherophakia to chromosome 14q24.3 in a consanguineous Pakistani family and screening of exon 36 of LTBP2 gene. <i>Journal of Pakistan Medical Association</i> . 70(3): 515-518.	0.573
11.	Shahid, M., Firasat, S. , Satti, H.S., Satti, T.M., Ghafoor, T., Sharif, I., Afshan, K. (2020). Screening of the FANCA gene mutational hotspots in the Pakistani fanconi anemia patients revealed 19 sequence variations. <i>Congenital Anomalies</i> . 60: 32-39.	1.761
12.	Naz, S., Shafique, N., Sharif, S., Manzoor, F., Saifi, S.Z., Firasat, S. , Kaul, H. (2020). Association of Interleukin 10 (IL-10) Gene with Type 2 Diabetes Mellitus by Single Nucleotide Polymorphism of Its Promotor Region G/A 1082. <i>Critical Reviews™ in Eukaryotic Gene</i>	2.156

	<i>Expression</i> , 30(4):285–289.	
13.	Rehman, S., Afshan, K., Razzaq, A., Hussain, M., Firasat, S. (2020), Anthelmintic efficiency of synthetic and herbal compounds against gastrointestinal nematodes in naturally infected goats. <i>Kafkas Univ Vet Fak Derg</i> , 26 (6): 813-816.	0.5
14.	Ullah, S., Afshan, K., Arshad, M., Firasat, S. (2020) "Genetic Characterization of <i>Gigantocotyle explanatum</i> from Buffaloes in Northwestern Pakistan." <i>Kafkas Univ Vet Fak Derg</i> . 26(2):225-230.	0.5
15.	Gul, R., Firasat, S. , Hussain, M., Afshan, K., Nawaz, D. (2020) IDUA gene mutations in mucopolysaccharidosis type-1 patients from two Pakistani inbred families. <i>Congenital Anomalies</i> . 60: 126-127.	1.761
16.	Afshan, K., Kabeer, S., Firasat, S. , Jahan, S., Qayyum. M. (2020). "Seroepidemiology of human fascioliasis and its relationship with anti-Fasciola IgG and liver enzymes as biomarkers of pathogenicity." <i>African Health Sciences</i> . 20 (1): 208-218.	0.7
17.	Khan, I., Afshan, K., Shah, S., Akhtar, S., Komal, M., Firasat, S. (2019)."Morphological and Molecular Identification of <i>Paramphistomum epiclitum</i> from Buffaloes in Pakistan." <i>Acta Parasitologica</i> . 65: 225-236.	1.02
18.	Shahid, M., Firasat, S. (2019). FANCA and contribution of studies from Asian populations to the understanding of FANCA mediated fanconi anemia. <i>Genetika</i> . 51(3): 1197-1225.	0.459
19.	Nazar, M., Afshan, K., Ali, R., Firasat, S. (2019) "Prevalence and associated risk factors of amphistomiasis in buffaloes from Pakistan". <i>Buffalo Bulletin</i> . 38 (4): 613-619.	0.11
20.	Afzal, R., Firasat, S. , Kaul, H., Ahmed, B., Siddiqui, S.N., Zafar, S.N., Shahzadi, M., Afshan, K. (2019). Mutational analysis of the CYP1B1 gene in Pakistani primary congenital glaucoma patients: Identification of four known and a novel causative variant at the 3' splice acceptor site of intron 2. <i>Congenital Anomalies</i> . 59: 152-161.	1.761
21.	Khan, B., Afshan, K., Firasat, S. , Qayyum, M. (2019). Seroprevalence and associated risk factors of Entamoeba histolytica infection among gastroenteritis patients visiting the public healthcare system, Pakistan. <i>Journal of Pakistan Medical Association</i> . 69 (12): 1777-1784.	0.573
22.	Firasat, S. , Kaul, H., Ashfaq, U.S., Idrees, S. (2018). In silico analysis of five missense mutations in CYP1B1 gene in Pakistani families affected with primary congenital glaucoma. <i>Int. Ophthalmol</i> . 38(2): 807-814.	1.132
23.	Zaman, S., Afshan, K., Firasat, S. , Jahan, S. and Qayyum, M. (2018) Measurement of Ascaris lumbricoides IgG antibody, associated risk factors and identification of serum biochemical parameters as biomarkers of pathogenicity: among patients with gastrointestinal complains in Pakistan. <i>Tropical Biomedicine</i> 35(1): 1–16.	0.9
24.	Kosar, S., Afshan, K., Salman, M., Rizvi, S.S.R., Naseem, A.A., Firasat, S. , Jahan, S., Miller, J.E. and Qayyum, M (2017) Prevalence and risk factors associated with intestinal parasitic infections among schoolchildren in Punjab, Pakistan. <i>Tropical Biomedicine</i> 34(4): 770–780.	0.9
25.	Rauf, B., Iram, B., Kabir, F., Firasat, S. , Naeem, M.A., Khan, S.N., Husnain, T., Riazuddin, S., Akram, J and Riazuddin, S.A. (2016) A spectrum of CYP1B1 mutations associated with primary congenital glaucoma families of Pakistani descent. <i>Human Genome Variation</i> . 4; 3:16021.	0
26.	Shakil, M., Ikramullah, M., Hussain, S., Firasat, S. , Mahmood, S., Kaul, H. (2016) Homozygosity mapping of a consanguineous Pakistani family affected with oculocutaneous albinism to Tyrosinase gene. <i>International Journal of Ophthalmology</i> . 9(5): 794-796.	1.177
27.	Firasat, S. , Hecker, M., Binder, L., Asif, A.R. (2014) Advances in endothelial shear stress proteomics. <i>Expert Review of Proteomics</i> . 11: 611-619.	3.849

28.	Ali, M., McKibbin, M., Booth, A., Parry, D.A., Jain, P., Riazuddin, S.A., Hejtmancik, J.F., Khan, S.N., Firasat, S. , Shires, M., Gilmour, D.F., Towns, K., Murphy, A., Azmanov, D., Tournev, I., Cherninkova, S., Jafri, H., Raashid, Y., Toomes, C., Craig, J., Mackey, D.A., Kalaydjieva, L., Riazuddin, S., Inglehearn, C.F. (2009) Null Mutations in LTBP2 Cause Primary Congenital Glaucoma. <i>AJHG</i> .84 (5): 664-671.	9.025
29.	Firasat, S. , Riazuddin, S.A., Hejtmancik, J.F. and Riazuddin, S. (2008) Primary congenital glaucoma localizes to chromosome 14q24.2-q24.3 in two consanguineous Pakistani families. <i>Mol. Vis.</i> 14: 1659-1665.	2.057
30.	Firasat, S. , Riazuddin, S.A., Khan, S.N. and Riazuddin, S. (2008) Novel CYP1B1 mutations in consanguineous Pakistani families with primary congenital glaucoma. <i>Mol. Vis.</i> 14: 2002-2009.	2.057

CONFERENCE PAPERS:

ORAL:

1. **S. Firasat**, R. Tehreem., K. Afshan. (2021). Molecular determinants causing anterior segment eye disorders in local population. Proceedings of 4th International Symposium on Advances in Molecular Biology of Plants and Health Sciences & CEMB Alumni Meet. Held on 23-24th December, 2021 at Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan.
2. **S. Firasat**, R. Gul., K. Afshan. (2021) Molecular genetic analysis of Pakistani congenital hereditary endothelial dystrophy affected families using Sanger's sequencing approach. Proceedings of 9th International Conference on Biological and Computational Sciences (C-BICS-2021). Held on 25th November, 2021 at Capital University of Science & Technology (CUST), Islamabad, Pakistan.
3. **S. Firasat**, N. Noor., K. Afshan. (2021) Study of clinical characteristics, frequency and genetic variants of ABCB4 gene in Pakistani obstetric cholestasis cases. Proceedings of 1st International Conference on Applied Engineering and Natural Sciences (ICAENS-2021). Held on 01-03 November, 2021 at Konya Technical University, Konya, Turkey.
4. **S. Firasat**, M. Shahid, K. Afshan. (2019) Mutational analysis of the selected exons of *FANCA* gene in Fanconi anemia cases. Proceedings of 1st International Conference on Recent Updates in Biotechnology (ICRUB-2019). Held on 16-18 October, 2019 at Allama Iqbal Open University, Islamabad, Pakistan.
5. M. Komal, K. Afshan, **S. Firasat**, M. Qayyum, M.V. Fuentes. (2019) Molecular characterization of *Paramphistomum epiclitum* (Trematoda: Paramphistomidae) inferred from the second internal transcribed spacer (ITS-2) sequence and secondary structure analysis in an endemic area of Pakistan. Proceedings of XXI Congress of the Spanish Society of Parasitology. Held on 3-5 July, 2019 at Pontevedra, Spain.
6. **S. Firasat**, Rabia Afzal, Haiba Kaul, Bashir Ahmed, Kiran Afshan. (2018) Molecular Characterization of CYP1B1 Gene in Pakistani Primary Congenital Glaucoma Patients: Identification of Five Known and a Novel Point Mutation at 3' Splice Acceptor Site of intron 2. Proceedings of International Agricultural, Biological and Life Science (AGBIOL) Conference. Held on 2-5th September, 2018 at Trakya University, Edirne, Turkey.
7. M. Shahid, **S. Firasat**. (2018) Identification of mutations in selected exons of *FANCA* gene in a cohort of Pakistani FA patients. Proceedings of 3rd International Conference on Biosciences (ICBS). Held on 9-11th May, 2018 at Government College University, Lahore. Pakistan.
8. **S. Firasat**, A.R. Asif, L. Binder. (2017) Cultured Immortalized Human Umbilical Vein Endothelial (HUVE) Cells characterisation and subsequent epigenetic analysis in response to low

oscillating shear stress treatment. Proceedings of Central and Eastern European Proteomic Conference (CEEPC) Kosice, Slovakia. 2017. ISBN-978-80-972017-5-3.

9. D. Ziegler, S. Khaliq, **S. Firasat**, K. Pantakani, L. Binder, A. Asif. (2015) Novel mutations in Pakistani population in the major Fanconi anemia gene “FANCA” Congress of Clinical Chemistry and Laboratory Medicine (CCLM). Volume 53, Issue 11, Pages eA93–eA175, ISSN (Online) 1437-4331, ISSN (Print) 1434-6621.

POSTER:

1. **S. Firasat**, R. Afzal, H. Kaul, B. Ahmed. (2018) Analysis of the *CYP11B1* gene in primary congenital glaucoma cases from Pakistan: Identification of a novel 3’ splice acceptor site mutation. Laboratory Medicine Congress and Exhibition (LMCE) & Korean Society of Laboratory Medicine (KSLM) 59th annual meeting, Seoul, South Korea. November 2018.
2. H. Kaul, **S. Firasat**, S. Naz. (2018). Molecular and genetic basis of inherited eye diseases in consanguineous Pakistani families. Laboratory Medicine Congress and Exhibition (LMCE) & Korean Society of Laboratory Medicine (KSLM) 59th annual meeting, Seoul, South Korea. November 2018.
3. N. Noor, **S. Firasat**. (2018) Molecular analysis of obstetric cholestasis patients presented at Holy Family hospital, Rawalpindi. Poster session linking patient outcomes to education and training. Association for Excellence in Medical Education (AEME) Conference, Islamabad, Pakistan. March 2018.
4. N. Ramzan, H. Kaul, M. Dawood, A. Javid, S. Mumtaz, M. Asim, **S. Firasat**, K. Afshan. (2018) Identification of PIT1 gene polymorphism and its association with milk composition in Holstein and Sahiwal Cattle. Poster session International conference on Omics for Animal Sciences: Opportunities and Challenges. Institute of Biochemistry and Biotechnology, University of Veterinary and Animal Sciences, Lahore, Pakistan. February 2018.

COURSES/ TRAININGS/WORKSHOPS/SEMINARS/CONFERENCES:

- 4th International conference on Applied Zoology (ICAZ—2021) by the Quaid-i-Azam University (QAU) in collaboration with the Government College University Faisalabad (GCUF) and the Applied Zoological Society of Pakistan (AZSP) (24-25th November, 2021).
- International Symposium on “The World Fisheries Day” organized by Pakistan Fisheries Society in collaboration with IUCN Pakistan and Quaid-i-Azam University Islamabad, Pakistan. (23rd November, 2021).
- The Climate Action Roundtable “Education for Climate Action: How Universities Can Steer the Climate Crisis” organized by the HEC and the British Council Pakistan. (6th October, 2021).
- Seminar on “Childhood Cancer Awareness” organized by Children Eye Hospital, Al-Shifa Trust Eye Hospital Rawalpindi, Pakistan. (29th September, 2021).
- Teaching and Research Skills organized by Department of Pharmacy, Quaid-i-Azam University, Islamabad, Pakistan. (October 18-20, 2016).
- Continuous professional development workshop on use of SPSS software in quantitative research organized by Department of Sociology, University of Wah, Wah Cantt. (November-2014).
- Seminar on “Biotechnology” organized by Department of Biosciences, University of Wah, Wah Cantt. (June-2012).
- Seminar on “Socio-economic Issues of Third World in the Context of Global Development” organized by Department of Sociology, University of Wah, Wah Cantt. (March-2012).
- Bioforum. Organized by National Centre of Excellence in Molecular Biology (NCEMB) University of the Punjab, Lahore. (March-2008).

- Pre 18th FAOBMB Symposium Satellite Workshop on bioinformatics. Organized by National Centre of Excellence in Molecular Biology (NCEMB) University of the Punjab, Lahore. (November-2005)

MEMBERSHIPS IN PROFESSIONAL ASSOCIATIONS:

- Centre of Excellence in Molecular Biology Alumni Association (CEMBIAN)
- Pakistan Proteomics Society
- National Academy of Young Scientists (NAYS)
- DAAD Alumni Association Pakistan

AREAS OF EXPERTISE:

Biochemical & Molecular Techniques:

- DNA, RNA, Protein Extraction
- RFLP
- ELISA
- Western / Southern blotting
- Isolation/Culture of mammalian cells
- PCR/Multiplex PCR/Real Time PCR
- Genotyping
- Gel electrophoresis and documentation
- Spectrophotometry for biomolecules
- Sanger Sequencing
- Chromatin immuno-precipitation (ChIP) etc.

Computer Skills:

- MS Word, MS Excel, MS PowerPoint, and other window packages
- Biological software (primer3, BLAT, BLAST, NCBI, DNA STAR, BIOEDIT, USCS human genome browser) etc.
- Graphics: Adobe Photoshop v:5.5
- Internet Surfing
- Pedigree Softwares Cyrillic 3.1.
- Clustal.W
- Sequence analysis softwares Chromas & Seqscape etc.