

Muhammad Usman Ghani

Office: Centre for Applied Molecular Biology, 87-West Canal Bank, Thokar Niaz Baig, Lahore-53700, Pakistan.

Present Address: Mohallah Lal Pura, Qila Kalar Wala, Tehsil Pasrur, District Sialkot, Pakistan.

Father's Name: Muhammad Anwar
Nationality: Pakistan
NIC number: 37405-7290545-1
Voice (Mobile#): 0345-6364366/ 03370400949
E-mail address: usman_chemist@hotmail.com.

Objective: My objective is a challenging position in a competitive environment of research in the field of basic Molecular Biology, Inherited Diseases, Clinical Molecular Diagnostics, Computational Biology or DNA Sequencing/Genotyping based medical genomics and molecular genetics.

Qualification:

M.Phil in Molecular Biology (2012-14)	University of The Lahore, Lahore, Pakistan.
M.Sc in Chemistry (2007)	University of The Punjab, Lahore, Pakistan.
B.Sc (Chem, Phy, Math) (2005)	University of The Punjab, Lahore, Pakistan.

Current Status:

Working as a Research Officer in **DNA Core Facility, CAMB, Ministry of Science & Technology** since April 2008.

Areas of Interest:

- Molecular Genetics, Genetic Association Studies.
- DNA Sequencing and Genotyping.
- Recombinant Proteins.

Publications:

- Muhammad Farooq Sabar, Mustansara Yaqub, Mohsin Ahmad Khan , Nadeem Ahmad, **Muhammad Usman Ghani**, Mariam Shahid. “**Synthesis of a New Tri-Branched PEG-IFN α 2 and Its Impact on Anti Viral Bioactivity**” (Int J Pept Res Ther (2010) 16:239–245).

- Muhammad Farooq Sabar, Farheena Iqbal Awan, Mariam Shahid, **Muhammad Usman Ghani** and Mustansara Yaqub. “**Synthesis and Bioactivity Study of 30KDa Linear PEG-Interferon and its Comparison with Tri-Branched PEG-Interferon**” (J. Chem. Soc. Pak., Vol. 35, No.1, 2013).
- Mariam Shahid, Muhammad Farooq Sabar, Iqbal Bano, Ziaur Rahman, Zafar Iqbal, Sayyeda Saadia Fatim Ali, **Muhammad Usman Ghani**, Muhammad Iqbal, and Tayyab Husnain. “**Sequence variants on 17q21 are associated with the susceptibility of asthma in the population of Lahore, Pakistan**” Accepted in Journal of Asthma on 22 January, 2015. DOI:10.3109/0277093.2015.1012590
- **Muhammad Usman Ghani**, Muhammad Farooq Sabar, Mariam Shahid, Muhammad Akram, Aleena Samrin, Rana Amjad Ali. “**Analysis of genetic variants of ADAM33 gene for susceptibility of Asthma in Pakistan**” submitted in Journal of Asthma.
- Mariam Shahid, Muhammad Farooq Sabar, Ziaur Rahman, **Muhammad Usman Ghani**, Samra Kousar, Farheena Iqbal Awan, Tayyab Husnain. "**Urbanization triggers asthma in 'C' allele carriers of rs12603332**" presented in “A course on Molecular Asthma, European Academy of Allergy and Clinical Immunology; 16th-18th April 2015, **Istanbul, Turkey**”

Research Projects Completed as (Team Scientist)

- Worked on “Preparation and Evaluation of Peach Based Fruit Yogurt” in PCSIR Complex, laboratories, Lahore, Pakistan as my M.Sc thesis research work (2007).
- Along the devoted services duties in DNA Core Facility-CAMB worked on “Synthesis of recombinant Therapeutic Proteins” (2009-2011).
- Worked with Asthma Genetics Research Group-CAMB to “Evaluate the genetic association of SNP variants with asthma patients of Pakistan”.

Research Projects Presently in Progress

- Working on the “**Screening of genomic variants associated with asthma susceptibility in Paksitan**”.
- Conducting different survey based studies to “**Estimate asthma prevalence and risk factors associated with asthma phenotypes in Pakistan**”.

Workshops & Trainings attended

- Workshop entitled “**Fluorescent Microscopy: introduction and Application**” organized by Department of Microbiology and Molecular Genetics(MMG), University of the Punjab, Lahore on 24th September 2011.
- Attended five day training course entitled “**Advances in Application of Molecular Biology**” organized by Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, Pakistan from 19-23 December 2011.

- Workshop on young Researcher's Skill Development and NAYS Emerging Ideas conference (NAYS-EIC) on 7th January, 2012.

Research Techniques Practical/ Hand-on Trainings

- DNA/RNA extraction using commercial Kits and manual methods (Phenol-Chloroform Extraction methods).
- Multiplex microsatellite PCR, Sequencing PCR.
- Sequencing on Capillary based ABI sequencers including ABI-3100, ABI-310XL, ABI-3730 and ABI-3730XL.
- Technical troubleshooting of the capillary based Genetic Analyzers.
- SNP data and haplotyping analysis.
- SNaPshot PCR for mini-sequencing and SNP fragment analysis.
- Intensive use of Biological softwares, Biostatistics and Biological Databases for analysis of DNA/RNA/Protein e.g. designing primers/probes, DNA sequencing & genotyping data analysis using the software like Sequencing Analysis, GeneScan, GeneMapper, Mutation Surveyor, SeqScap, Chromas etc.
- Genotyping and DNA fragment analysis using microsatellites and ABI analyzers.
- DNA primer synthesis using ABI- 3900 synthesizer and post synthesis processing.
- Gel electrophoresis analysis (Agarose and PAGE) for DNA and proteins.
- PEGylation (chemical modification) of therapeutic proteins
- Adequate experience in bioinformatics.

Administrative Experience:

Served or serving as

- Member CAMB Purchase Evaluation Committee from 2013 to date.
- Curriculum & Management advisor "Suffa Islamic School System, Qila Kalar Wala" from 2012 to date.
- Served as President of "Wahdat Blood Donars Society" Govt. College of Science, Lahore (2007).
- Served as Information Secretary of "GCS Chemical Society" Govt. College of Science, Lahore (2007).

Interests: Social work, gatherings for human development, Internet browsing and acquiring knowledge

Language: English, Urdu and Panjabi