



MUHAMMAD ZUHAIR

Date of birth: 15/04/2000 | **Nationality:** Pakistani | **Gender:** Male | **Phone number:** (+92) 3490522696 (Mobile) | **Email address:** muhammadzuhair.bch@gmail.com | **LinkedIn:** <https://www.linkedin.com/in/mzuhair> | **WhatsApp Messenger:** 03404278537 |

Address: Mehran Book Depot , near Benazir chowk Skardu, 45320, Skardu, Pakistan (Home)

Address: Room#26 Hostel#06 Quaid-I-Azam University Islamabad, 45320, Islamabad, Pakistan (Work)

ABOUT ME

I aim to become a good researcher who enables me to resolve the core issues in Biochemistry, Biotechnology, Molecular Biology, tissue engineering, and Stem Cells Biology and will help my country to improve by working on the latest advancements in the field of Biochemistry and bioengineering to personalized medical treatment against diseases.

EDUCATION AND TRAINING

06/09/2023 – CURRENT Islamabad, Pakistan

M.PHIL BIOCHEMISTRY Quaid-i-Azam University

Website www.qau.edu.pk

02/09/2019 – 22/08/2023 Islamabad, Pakistan

BS BIOCHEMISTRY Quaid-i- Azam University Islamabad

Website <https://qau.edu.pk/> | **Field of study** Biochemistry | **Final grade** 3.5 CGPA |

Thesis Genetic Analysis of PTEN Mutations in Pakistani Breast Cancer Patients through Sanger Sequencing

01/09/2016 – 01/05/2018 Rawalpindi, Pakistan

HIGHER SECONDARY SCHOOL CERTIFICATE (HSSC) Punjab College D-9 Campus Rawalpindi

Website <https://pgc.edu/campus/punjab-college-d-9-campus-rawalpindi/> | **Field of study** pre-medical | **Final grade** 83.0%

RESEARCH INTEREST

Genetic, Biochemistry ,Cell Biology ,Cancer Biology, Plant Biochemistry, Biotechnology , Drug Development

PROJECTS

10/02/2023 – 09/10/2023

Genetic Analysis of PTEN Mutations in Pakistani Breast Cancer Patients through Sanger Sequencing.

The final year project researched to enhance the knowledge and skills for future research.

Responsibilities & Methods: Sampling and isolations, Literature review, Data analysis, RNA extraction, DNA Extraction, Whole Exome Sequencing, Primer Designing, RT qPCR, Reconstitution and Quantification of RNA, cDNA Synthesis, Primer Designing, Conventional PCR, Agarose Gel Electrophoresis, and Thesis writing.

PUBLICATIONS

2025
[Circulating Tumor Cells and DNA In Early Diagnosis and Prognosis of Metastatic Cancer](#)

Under Review

Marium Jahan1*, Ayesha Rubab1, Mohsin Ali1, Aneesa Sultan1, Muhammad Zuhair1, Muhammad Zakria1, Jahangir Sarwar2, Syed Waqas Hasan2

2023

Prostate Specific Antigen as a Tumor Marker in Prostate Cancer: Exploring Biochemical and Clinical Aspects

Khan, Abid, Abid, Muhammad Umar, and Burki, Yousaf Mehmood (2023), GDDDR, VIII (I), 35-41

2023

Navigating Antibiotic Resistance in Staphylococcus aureus: Mechanisms, Strategies, and Future Perspectives, A Mini Review

Kausar R, NU Ain, Q Naeem, M Zuhair, Sanobar & M Adil. 2023. Biological times, 2(11): 57-58

● **RESEARCH INTERNEE**

03/06/2022 – 04/08/2022

Internee Molecular Biology

I have worked as a Molecular biology intern at various sections of the Department of Pathology & Biochemistry at **Pakistan Institute of Medical Sciences (PIMS)** Islamabad. I remained involved in **Microscopy (FM), Real-Time PCR (GeneXpert), Media Preparation, and Culturing of MTB**. I have a demonstrated ability to administer the work of biological technicians and set up technical reports, study papers, and recommendations derived from research findings.

19/05/2021 – 09/07/2021

Internee Laboratory Technician

6- Weeks Internship completed at **the Skardu Diagnostic Laboratory, Skardu**, under the careful guidance of **Dr. Shujaat Hussain**. Hematology Laboratory Techniques (CP Test, Urine Test, Blood Screening, ABG's Test, Blood Grouping, API Test, Electrolyte Test, PCR)

● **ONLINE COURSES**

15/01/2023

Biology of Cancer

Successful completion of "Biology of **Cancer**" an online non-credit course authorized by Johns Hopkins University and offered through Coursera.

Link https://www.linkedin.com/posts/mzuhair_completion-certificate-for-introduction-to-activity-7020463722158567424-cWxl?utm_source=share&utm_medium=member_android

● **EXPERTISE**

BIOLOGICAL/ANALYTICAL EXPERTISE

- Media Preparation/ Tissue Culture
- Gel Electrophoresis of DNA/ RNA.
- Pathology Lab Tests/Biochemistry lab/ Clinical Lab/ Microbiology/Blood Grouping
- Disinfection and sterilization/Lab safety/Specimen collection/Laminar Flow hood.
- PCR lab Test.

SOFTWARE SKILLS

- NucleotideBLAST/ Protein BLAST/ExpASY Translate Tool
- Primer Designing/ Gene Sequencing/ Drug Designing
- Microsoft Office – word, excel, access, and PowerPoint.

● **CONFERENCES AND SEMINARS**

02/08/2023 – 04/08/2023 Islamabad , Pakistan

• **Certificate of Participant in 3 days' International workshop on "Development of Animal Model for Metabolic Diseases" at COMSTECH Islamabad.**

24/07/2023 – 25/07/2023 Islamabad, Pakistan

• **Participated in 2 days International Symposium on “Artificial Intelligence Medical Imaging and Pattern recognition” (ISAIMP-2023) Organized by AITeC National Center of Physics**

23/03/2023 Islamabad, Pakistan

• **Participated in a one-day Seminar on "Challenges Opportunities and Trends in Biotechnology in Pakistan" on March 22, 2023, at the Serena Hotel Islamabad, Pakistan**

27/02/2023 – 28/02/2023 Islamabad, Pakistan

• **Participated in 2-Days Symposium on “Bioinformatics” Organized by Computational Biology and Bioinformatics Group, Department of Biosciences COMSAT University, Islamabad**

23/12/2021 – 23/12/2021

• **Participate in "4 the International Symposium on Advances in Molecular Biology of Plants and Health Sciences" at Centre of Excellence in Molecular Biology (CEMB Lahore)**

● **COMMUNICATION AND INTERPERSONAL SKILLS**

Amal Carrier Prep Fellowship

Education startup funded by Stanford University that teaches professional skills to students and corporations *Career-Prep Fellow: March 2023 - June 2023*

Communication: **Selected** in a highly competitive 3-month Fellowship program sponsored by Stanford University.
Skill development: **Invested** 150 hours in order to develop my business skills, including communication, leadership, problem-solving, teamwork, and more, to enhance my ability to create a meaningful impact in the workplace.

English Access Micro Scholarship Program.

Grace Association Pakistan, in association with the English Access Microscholarship Program

Communication: Through the program, I acquired comprehensive English language skills that have since empowered me to excel in various academic and professional pursuits. The program's rigorous curriculum fostered not only linguistic competence but also communication skills, which are crucial for success in today's globalized world

Skill development: Invested 2 years which has significantly enriched my educational journey, enhancing my language skills and broadening my horizons. It stands as a testament to my dedication to self-improvement and my ability to thrive in diverse and challenging environments.

● **ACADEMICS/SEMESTER PROJECTS**

Preparation and amplification of Plasmid DNA.

Prepared Cell Extracts for Isolation of DNA, RNA, and Protein

Primer Designing

Bioinformatics approach to analyze any given DNA sequence.

● **HONOURS AND AWARDS**

11/02/2022

Winner of Sciences Poster Presentation Competition on the theme of Nobel prizes in physiology and medicines. – Department of Biochemistry, Quaid-i-Azam University Islamabad

EHSAAS Undergraduate Scholarship – Quaid-i-Azam University Islamabad

PBM need base scholarship – Quid-i-Azam University Islamabad

Federal Employees Benevolent and Group Insurance Funds – Federal Education Ministry

Marafie Foundation Scholarship – Marafie Foundation Pakistan

A +1 Merit Scholarship – Punjab Group of Colleges G-9 Campus Rawalpindi

● **SOCIAL AND POLITICAL ACTIVITIES**

Islamabad
Co-Founder of SMF Foundation

03/03/2022 – CURRENT Islamabad
Core member Progressive Student Federation Islamabad

01/03/2021 – 01/01/2022 Quaid-i-Azam university Islamabad
Ambassador, Society-of-Sciences QAU

01/06/2023 – CURRENT Quaid-i-Azam university Islamabad
Volunteer at QAU Blood & Welfare Society, QAU Islamabad

07/03/2021 – 02/03/2022 Quaid-i-Azam university Islamabad
Campus Ambassador of Teach for Pakistan. Islamabad

CURRENT Rawalpindi, Pakistan
Ambassador Amal Carrier Prep Fellowship Rawalpindi

● **RECOMMENDATIONS**

Dr. Irum Murtaza Professor (Chairperson)

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Email irumbch@qau.edu.pk | **Phone** (+92) 05190643175

Dr. Aneesa Sultan Professor

.
Email aneesa@qau.edu.pk | **Phone** (+92) 05190643174

Dr. Rizwam Alam Assistant Professor (Incharge Student Affairs)

.
Email mr Alam@qau.edu.pk | **Phone** (+92) 05190643016

Dr. Imran Ullah Assistant Professor

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Email Imran.bch@gmail.com | **Phone** (+92) 05190643222

● **LANGUAGE SKILLS**

Mother tongue(s): **BALTI**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	C1	B2	B2	C1
URDU	C2	C2	C2	C2	C2
HINDI	C1	A1		C1	A1