

## Curriculum Vitae

Dr. Afia Muhammad Akram

Date of Birth: July 27, 1985

Nationality: Pakistani

Email:afiamakram@gmail.com

afiamakram@ue.edu.pk

Mobile:+923236009330

Marital status: Married



Department of Zoology, Division of Science and Technology, University of Education, Township, Lahore.

---

### ACADEMIC QUALIFICATION

Ph.D. Zoology	2010-2014- University of The Punjab, Lahore. <i>Dissertation: Investigations of BCR-ABL kinase domain mutations and their association with Imatinib treatment in Chronic myeloid leukemia patients from Pakistan (Supervisors: Prof. Dr. Tanveer Akhtar and Prof. Dr. Zafar Iqbal)</i>	
M.S. Zoology	2008- 2010- University of The Punjab, Lahore. <i>Dissertation: Frequency of TEL-AML1 fusion oncogene in acute lymphoblastic leukemia (ALL) patients of Pakistan (Supervisor: Prof. Dr. Tanveer Akhtar)</i>	3.93 CGPA
B.S. Zoology	2004 – 2008- University of The Punjab, Lahore. <i>Dissertation: Quantitative analysis of Low molecular weight Protein Profile of young obese human (Supervisor: Prof. Dr. Nabila Ruhi)</i>	3.86 CGPA
F.Sc./HSSC	2001 – 2003	score: 75%
Pre-medical	Majors: Biology, Physics and Chemistry. Federal Board of Intermediate and Secondary Education, Islamabad.	
Matric/SSC	1999-2001	score:76%
Science	Majors: Biology, Physics and Chemistry. Federal Board of Intermediate and Secondary Education, Islamabad.	

---

### EMPLOYMENT HISTORY

25 <sup>th</sup> March 2021-Present	Associate Professor Division of science and technology, University of Education, Lahore.
Oct 2017 – March 2021	Assistant Professor Division of science and technology, University of Education, Lahore.
April 2016- Sep 2017	Assistant Professor Institute of molecular biology and biotechnology, The University of Lahore, Lahore.
Mar 2015-Mar 2016	Assistant professor (Interim placement for fresh Ph.D.) Department of Biotechnology, University of Sargodha, Sargodha.

Nov 2013- Mar 2015	Visiting lecturer (Biology, Zoology) Department of Science Education, Institute of Education and research, University of the Punjab,Lahore.
Aug 2010-Aug 2012	Research Associate –Ph.D Scholar HEC-NRPU Project No. 20-1370/R&D/09. Department of Zoology, University of the Punjab, Lahore.
Oct 2009-Nov 2009	Elective Research Intern Shaukat Khanum Memorial Cancer Hospital and Research Centre (SKMCH&RC) Lahore. Training for techniques in molecular biology.

---

## RESEARCH PROJECT COMPLETED

HEC–NRPU Funded Project (No. 20-9727/R&D/NRPU/HEC/2018)

*Investigation of CEBPA Gene Mutations and Their Prognostic Significance in Acute Myeloid Leukemia (AML) Patients from Pakistan*

**Funding:** PKR 6.176 million | **Completion:** 2022

---

## RESEARCH PUBLICATIONS

Year	Publication
1. 2025	Rabia Talat, Khuram Shehzad Khan, <b>Afia Muhammad Akram</b> , Sikandar Hayat and Amjad Zafar. Identification of Novel Alterations in ASXL1 Gene and its Expressional Profile in CML Patients. Pakistan Biomedical Journal, 8(12). 40-46. (HEC recognized, Category Y)
2. 2025	Zunaira Wasif, Areeba Wasif, Areej Irfan, Muhammad Saqlain, Tooba Sajjad, Asma Abdul Latif, Sikandar Hayat, Ayesha Riaz and <b>Afia Muhammad Akram</b> . Prevalence of Waterborne Parasites in Environmental Water Sources of Lahore and Faisalabad, Pakistan. Futuristic Biotechnology, 5(4): 49-54. (HEC recognized, Category Y)
3. 2024	Muhammad Amjad Iqbal, Noreen Sarwar, Sohail Raza, Sehrish Firyal, Rabia Riaz, <b>Afia Muhammad Akram</b> , Rashad Munir, Aamir Riaz Khan, Mobeen Sarwar, Muhammad Imran Arshad. Comparative assessment of $\beta$ -propiolactone, binary ethyleneimine and formaldehyde in inactivating Foot and Mouth Disease virus serotype O. <i>Asian Journal of Agriculture and Biology</i> , 2024 (3): 349. DOI: 10.35495/ajab.2023.349. (HEC Category X, IF. 1.6)
4 2023	Samavia Abdulhaq, <b>Afia Muhammad Akram</b> , Khansa Jamil and Asma Tahir.

- Computational Exploration of Functional and Structural Impact of Single Nucleotide Changes in DNMT3A Gene among Acute Myeloid Leukemia Patients. *Pakistan Biomedical Journal*. 6(4): 31-38. (HEC recognized, Category Y)
- 5 2023 Anam Munir, **Afia Muhammad Akram**, Khansa Jamil and Asma Tahir. In Silico Post Translational Analysis of Functional Single Nucleotide Alterations in Human TERT Gene Associated with Acute Myeloid Leukemia. *Pakistan Biomedical Journal*. 6(5): 24- 32. (HEC recognized, Category Y)
  - 6 2023 Maria Aslam, **Afia Muhammad Akram**, Asma Tahir, Khansa Jamil. In Silico Assessment of Post Translational Modifications Caused by NRAS Gene SNPs in Acute Myeloid Leukemia. *Futuristic Biotechnology*. 3(1): 25-31. (HEC recognized, Category Y)
  - 7 2022 Asma Chaudhary, Irshad Hussain, Qurat-ul-Ain Ahmad, Zawar Hussain, **Afa Muhammad Akram** and Ali Hussain. Efficient utilization of melon peels to produce ethanol: a step toward sustainable waste management. *Biomass Conversion and Biorefnery* 2024 (14):3463–3475. (HEC Category W, IF 4.1)
  - 8 2022 **Afia Muhammad Akram**, Mubashir Hassan , Asma Chaudhary, Sikandar Hayat, Qurban Ali, Taha Hussain, Amjad Zafar, Muhammad Arshad Javed. Identification and in silico analysis of noval alteration Arg420Gly in KIT proto oncogene among acute myeloid leukemia patients. *Scientific reports*, 12(1): 19252. doi: 10.1038/s41598-022-23934-y. (HEC Category W, IF 5)
  - 9 2021 Atia Rehman , **Afia Muhammad Akram** , Asma Chaudhary , Nadeem Sheikh , Zawar Hussain , Walaa F Alsanie, Rahat Abdul Rehman , Naila Hameed , Tayyaba Saleem , Amjad Zafar , Muhammad Absar , Zafar Iqbal , Alaa Alhazmi , Hosam Ali Baeshen, Zuhair M Mohammedsaleh, Samina Qamer, Samy Sayed, Ahmed Gaber. RUNX1 mutation and elevated FLT3 gene expression cooperates to induce inferior prognosis in cytogenetically normal acute myeloid leukemia patients. *Saudi Journal of Biological Science.*, 2021 Sep;28(9):4845-4851. doi: 10.1016/j.sjbs.2021.07.012. (HEC Category W, IF 4.219)
  - 10 2021 Asma Chaudhary, Zawar Hussain, **Afia Muhammad Akram**, Mohammed Alorabi, Noreen Sarwar, Rahat Abdul Rehman, Naveed Ahmad Khan, Muhammad Faiz Khan, Qandeel Minahal, Hesham Ali El Enshasy, Solleh Ramli, Ali TanKee Zuan, Alaa Alhazmij, Syed Mohammed Basheeruddin Asdaq, SaminaQamer, Mohamed Alkafafy. Impact of *Bacillus subtilis* supplemented feed on growth and biochemical constituents in *Labeo rohita* fingerlings. *Journal of king saud university- Science*. 33(8): 101668. (HEC Category W, IF 4.01).

- 11 2021 Majid Hussain, Syed Makhdoom Hussain, Razia Iqbal, M. Mudassar Shahzad, Syed Zakir Hussain Shah, **Afia Muhammad Akram**, Nisar Ahmad and Muhammad Zubair ul Hassan Arsalan. Effect of Citric Acid Acidified Moringa oleifera Seed Meal based Diet on Minerals Absorption, Carcass Composition and Hematological Indices of Cirrhinus mrigala Fingerlings. *Pakistan Journal of Zoology*, 54 (4): 1737-1745. (HEC Category X)
- 12 2021 Asma Chaudhary, **Afia Muhammad Akram**, Qurat-ul-Ain Ahmad, Zawar Hussain, S. Zahra, Qandeel Minahal , S. Azhar, S. Ahmad, Sikandar Hayate , M. A. Javed, M. S. Haiderg , Q. Alie and S. Karita. Optimized biotransformation of acid-treated water melon peel hydrolyzate into ethanol. *Brazilian Journal of Biology*, 2023(83): e253009. doi.org/10.1590/1519-6984.253009. (HEC Category X, IF 1.36)
- 13 2021 **Afia Muhammad Akram**, Asma Chaudhary, Humera Kausar , Fayez Althobaiti , Afshan Syed Abbas , Zawar Hussain , Naz Fatima , Erum Zafar , Wajiha Asif ,Umair Afzal , Zoufishan Yousaf , Amjad Zafar , Steve M. Harakeh , Samina Qamer. Analysis of RAS gene mutations in cytogenetically normal de novo acute myeloid leukemia patients reveals some novel alterations. *Saudi journal of biological Sciences*, 28(7): 3735-3740. (HEC Category W, IF 4.219)
- 14 2021 Asma Chaudhary, **Afia Muhammad Akram**, Ayesha Aihetasham, Zawar Hussain, Afshan Syed Abbas, Rahat Abdul Rehman, Qurat-ul-Ain Ahmad, AnjumTahira, Ayesha Saleem, Samina Qamer, Youssef Alghamdi, Samy F.Mahmoud, Samy Sayed. Punica granatum waste to ethanol valorisation employing optimized levels of saccharification and fermentation. *Saudi journal of biological Sciences*. 28(7): 3710-19. (HEC Category W, IF 4.219)
- 15 2021 Asma Chaudhary, Qurat-ul-Ain Ahmad, **Afia Muhammad Akram**, Mehwish Iqtidar and Javed Iqbal Qazi. Effect of Sphingomonas sp., as a Probiotic on Survival, Growth and Biochemical Constituents of Vibrio anguillarum Challenged Labeo rohita Fingerlings. *Pakistan Journal of Zoology*, 53(6); 2071-2081.DOI: <https://dx.doi.org/10.17582/journal.pjz/20181009061048>. (HEC Category Y)
- 16 2020 Ayesha Saleem, Ali Hussain, Asma Chaudhary, Qurat-ul-Ain, Ahmad, Mehwish Iqtedar, Arshad Javid & **Afia Muhammad Akram**. Acid hydrolysis optimization of pomegranate peels waste using response surface methodology for ethanol production. *Biomass Conversion and Biorefinery*. 12(8):1-12. (HEC Category W, IF 2.15)
- 17 2020 Zafar Iqbal, Muhammad Absar, Amer Mahmood, Aamer Aleem, Mudassar Iqbal, Abid Jameel, Tanveer Akhtar, Sajjad Karim, Mahmood Rasool, Zeenat Mirza, Muhammad Khalid, **Afia Muhammad Akram**, Muhammad Farooq Sabar, Ahmad M Khalid, Khalid Aljarrah, Janhangir Iqbal, Muhammad Khalid,

Ijaz H Shah, Nawaf Alanazi. Discovery and Protein Modeling Studies of Novel Compound Mutations Causing Resistance to Multiple Tyrosine Kinase Inhibitors in Chronic Myeloid Leukemia. *Asian Pacific Journal of cancer prevention*. 21 (12), 3517-3526. (HEC Category Y)

- 18 2020 Asma Chaudhary, **Afia Muhammad Akram**, Qurat-ul-Ain Ahmad, Qandeel Minahal, Chaman Ara, Shagufta Andleeb, Mehwish Iqtedar And Qurban Ali. Rsm-Based Fermentative Ethanogenesis Employing Acid Hydrolysate Watermelon Peels. *Plant Cell Biotechnology and Molecular Biology* 21(63&64):63-77; 2020. (HEC Category Y)
- 19 2020 Asma Chaudhary, Qurat-ul-Ain Ahmad, **Afia Muhammad Akram**, Sadia Roshan and Javed Iqbal Qazi. Antagonistic Probioticity of Novel Bacterial Isolates from Pakistan against Fish Pathogen *Pseudomonas fluorescens* in Labeo rohita Fingerlings. *Pakistan Journal of Zoology*, 53(4);1265-1278.  
DOI: <https://dx.doi.org/10.17582/journal.pjz/20191226131233> (HEC Category W, IF 0.790)
- 20 2019 Muhammad Mudassar Shahzad, Syed Makhdoom Hussain, **Afia Muhammad Akram**, Arshad Javid, Majid Hussain, Syed Zakir Hussain Shah and Asma Chaudhary. Improvement in Nutrient Digestibility and Growth Performance of Catla catla Fingerlings Using Phytase in Moringa oleifera Leaf Meal Based Diet. *Pakistan Journal of Zoology*, 52(1), 157-168. (HEC Category W, IF 0.790)
- 21 2019 Syed Makhdoom Hussain, Anam Khalid, Muhammad Mudassar Shahzad\*, Azhar Rasul, **Afia Muhammad Akram**, Nisar Ahmad, Fatima Khalid. Effect of dietary supplementation of selenium nanoparticles on growth performance and nutrient digestibility of common carp (*Cyprinus carpio* Linnaeus, 1758) fingerlings fed sunflower meal based diet. *Indian J. Fish.*, 66(3): 53-59, 2019. (HEC Category W, IF 0.293)
- 22 2018 **Afia Muhammad Akram**, Humera kausar, Asma Chaudhary, Ahmad Mukhtar Khalid, Muhammad Mudassar Shahzad, Muhammad Waheed Akhtar, Muhammad Farooq Sabar, Nadia Sajid, Nawaf Al Anazi, Aamir Aleem, Zafar Iqbal. Detection of Exon 12 and 14 Mutations in Janus Kinase 2 Gene Including a Novel Mutant in V617F Negative Polycythemia Vera Patients from Pakistan. *Journal of cancer*, 9(23):4341-4345. (HEC Category W, IF 3.2)
- 23 2017 **Afia Muhammad Akram**, Zafar Iqbal, Tanveer Akhtar, Ahmed Mukhtar Khalid, Muhammad Farooq Sabar, Mahmood Hussain Qazi, Zeba Aziz, Nadia Sajid, Aamer Aleem, Mahmood Rasool, Muhammad Asif, Saleh Aloraibi, Khaled Aljamaan& Mudassar Iqbal. 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 and therapy*, 18(4): 214–221. (HEC Category W, IF 3.531)

- 24 2015 Zafar Iqbal, Tanveer Akhtar, Tashfin Awan, Aamer Aleem, Noreen Sabir, Mahmood Rasool, Muhammad Absar, **Afia M. Akram**, Masood A. Shammas, Ijaz H. Shah, Muhammad Khalid, Abid S. Taj, Abid Jameel, Abdullah Alanazi, Ammara T. Gill, Jamil Amjad Hashmi, Akhtar Hussain, Muhammad Farooq Sabar, Ahmad M. Khalid, Mehmood Hussain Qazi, Sajjad Karim, Muhammad Hassan Siddiqi, Aamir Mahmood, Mudassar Iqbal, Anjum Saeed, Muhammad Imran Irfan. 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): 277-87. (HEC Category W, IF 2.896)
- 25 2014 **Afia Muhammad Akram**, Tanveer Aktar and Zafar Iqbal. Survival assessment and optimization of BCR/ABL-KD amplification protocol for detection of Imatinib resistant mutations in Ph+ Chronic Myeloid Leukemia patients from Pakistan. *Gene therapy and molecular biology*, 16: 10-29. (W category, IF 0.2). *The journal discontinued in 2018*
- 26 2012 Noreen Sabir, Zafar Iqbal, Aamer Aleem, Tashfeen Awan, Tahir Naeem, Sultan Asad, Ammara H Tahir, Muhammad Absar, Rana MW Hasanato, Sulman Basit, Muhammad Azhar Chishti, Muhammad Faiyaz Ul-Haque, Ahmad Muktar Khalid, Muhammad Farooq Sabar, Mahmood Rasool, Sajjad Karim, Mahwish Khan, Baila Samreen, **Afia Muhammad Akram**, Muhammad Hassan Siddiqi, et al, 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. DOI: 10.7314/APJCP.2012.13.7.3349 . (HEC Category W, IF 1.271)
- 27 2011 **Afia Muhammad Akram**, Rida Ali, Nabila Roohi and Ayesha Ilyas, 2011. Quantitative Profiling of Serum Protein Fractions in Young Obese Human. *Pakistan Journal of Zoology*, 43(3): 489-495. (HEC Category W, IF 0.338)

---

## CONFERENCE PRESENTATIONS

- 2025 Samia Fiaz, **Afia. M. Akram** and Amjad Zafar. Detection of TET2 Gene Hotspot Mutations in Chronic Myeloid Leukemia (CML) Patients. *Zoological emerging Scientific Trends*, ZEST2025-MBG-09; 80.
- 2025 Khuram Shehzad Khan, **Afia. Muhammad Akram** and Amjad Zafar. Expressional Analysis of ASXL1 Gene mRNA in Chronic Myeloid Leukemia (CML) Patients. *Zoological emerging Scientific Trends*, ZEST2025-MBG-08; 79.
- 2024 **Afia Muhammad Akram** and Syed Qamar Abbas. CAAT/ Enhancer Binding Protein Alpha Gene Mutations in Transactivation Domain and their Computational Analysis in Acute Myeloid Leukemia Patients from Central Punjab Pakistan. *Zoological emerging*

Scientific Trends, ZEST2024-MBG-17; 75.

- 2024 Saboor Shahban and **Afia Muhammad Akram**. Assessing the Impact of Exon 5,7 and 11 Single Nucleotide Polymorphism in the ABL1 Gene on Chronic Myeloid Leukemia through Computational Tools. Zoological emerging Scientific Trends, ZEST2024-MBG-15; 74.
- 2024 Zilmaarij, and **Afia Muhammad Akram**. Screening of TP53 Exon 7 and 8 Mutations in Chronic Myeloid Leukemia Patients from Punjab, Pakistan. Zoological emerging Scientific Trends, ZEST 2024-MBG-14; 73-74.
- 2024 Nazia Noreen and **Afia Muhammad Akram**. Exploring the Role of TP53 DNA Binding Domain Expression in Progression of Chronic Myeloid Leukemia. Zoological emerging Scientific Trends, ZEST2024-MBG-12; 72-73.
- 2023 Atia Rehman, **Afia Muhammad Akram**, Nadeem Sheikh, Taha Hussain and Wajiha Asif. Altered RUNX1 Influences the Clinical Characteristics, Prognosis and Survival Outcomes in Acute Myeloid Leukemia Patients. Zoological emerging Scientific Trends, ZEST 7-8 March 2023; 75-76.
- 2020 Zafar Iqbal, Muhammad Absar, Tanveer Akhtar, Nawaf Al-Anazi, Ahmad Khalid, Naila Batool Khalid, Muhammad Farooq Sabar, Sulman Basit, Aamer Aleem, **Afia Muhammad Akram**, Abid Jameel, Amer Mahmood. Identification of Genomic Variants Associated With Long Term Molecular Response to Tyrosine Kinase Inhibitors in Chronic Myeloid Leukemia. EHA library. Iqbal Z. 06/12/20; 294666; EP748.
- 2020 Zafar Iqbal, Muhammad Absar, Tanveer Akhtar, Nawaf Al-Anazi, Ahmad Khalid, Naila Batool Khalid, Muhammad Farooq Sabar, Sulman Basit, Aamer Aleem, **Afia Muhammad Akram**, Abid Jameel, Amer Mahmood. Next Generation Sequencing Identifies Common Mutational Signatures in Novel Genes Representing Different Biological Pathways Associated With Acute Transformation in Chronic Myeloid Leukemia. EHA Library. Iqbal Z. 06/12/20; 294680; EP762
- 2019 Zafar Iqbal, Muhammad Absar, Abid Jameel, Tanveer Akhtar , Sulman Basit, Aamer Mahmood, Aamir Aleem, Nawaf Alanazi, Ullah Anhar , Naila Batool Khalid , Sibtain Afzal , Jamil Amjad Hashmi , **Afia Muhammad Akram**, Khushnooda Ramzan, Mahmood Rasool , Muhammad Hasaan Aziz , Muhammad Farooq Sabar, Mudassar Iqbal, Ahmad Mukhtar Khalid. Investigations on Novel Gene Variants Associated with Longterm Response to Tyrosine Kinase Inhibitors (TKIs) in Chronic Myeloid Leukemia: Implication in TKI-Cessation Clinical Trails. *Blood* 134 (Supplement\_1): 2939 | <https://doi.org/10.1182/blood-2019-125518>.
- 2018 **Afia Muhammad Akram**, Mahnoor Fatima Farooqi, Rida Fatima, Saad Afzal, Nadia Sajid, Muhammad Waheed Akhtar and Ahmad Mukhtar Khalid. Incidence Of Jak2 Exon 12 Mutations Including A Novel Mutation in V617f-Negative Polycythemia Vera Patients From Pakistan. 38<sup>th</sup> Pakistan Congress of Zoology, 239-40.
- 2018 **Afia Muhammad Akram**, Tanveer Akhtar, Asma Chaudhary, Muhammad Mudassar

- Shahzad, Ahmad Mukhtar Khalid, Nadia Sajid, Muhammadarooq Sabar and Zafar Iqbal. BCR-ABL Kinase Domain Mutations Exist in Few Imatinib Treated Chronic Myeloid Leukemia (CML) Patients Exhibiting Stable Cytogenetic and Hematologic Responses. *Blood*, 132:5427.
- 2016 Zafar Iqbal, **Afia Muhammad Akram**, Tanveer Akhtar, Aamer Aleem, Muhammad Farooq Sabar, Zeba Aziz, Nadia Sajid, Mahmood Rasool, Muhammad Asif, Mehmood Hussain Qazi, Saleh Oraibi, Ammara T Gill, Khalid Al Jamaan, Mudassar Iqbal, and Ahmad Mukhtar Khalid. 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.
- 2015 Zafar Iqbal, **Afia Muhammad Akram**, Tanveer Akhtar, Muhammad Khalid, Zeba Aziz, Aamer Aleem, Ammara T Gill, Ahmad M Khalid, Abdullah Alanazi, Ijaz H Shah, Muhammad Khalid, Muhammad Farooq Sabar, and Mudassar Iqbal. 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).
- 2014 Zafar Iqbal, Tanveer Akhtar, **Afia M Akram**, Muhammad Khalid, Ijaz Hussain Shah, Aamer Aleem, Muhammad Khalid, Javed Iqbal, Zeba Aziz, Muhammad Absar, Jamil Amjad Hashmi, /mehmood Hussain Qazi, Ahmed Mukhtar Khalid, Muhammad Farooq Sabar, Sajjad Karim, Mahmood Rasool, Aamer Mahmood, Ammara Tariq Gill, Giuseppe Saglio and Mudassar Iqbal. 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 for detection of Imatinib resistant mutations in Ph+ Chronic Myeloid Leukemia patients from Pakistan. *Blood*, 124: 1810.

## Ph.D. SUPERVISED

1. Ms Atia Rehman (PhD-UDZ04F17), Session 2017-22, University of The Punjab.  
Supervisor I: Prof. Dr. Nadeem Sheikh Supervisor II: Dr. Afia M. Akram

*Dissertation Title: Study of CCAAT Enhancer Binding Protein Alpha Gene Mutations in Acute Myeloid Leukemia Patients.* Completed in 2022

Ph.D. work was conducted under project No: 20-9727/R&D/NRPU/HEC/2018 as research associate.

2. Mr. Muhammad Husain (PhD-UZ06S18) Session: 2018-2025, University of the Punjab  
Supervisor I: Dr. Ayesha Aihetasham Supervisor II: Dr. Afia M. Akram

*Dissertation Title: Study of p53 Gene Alterations and their Expression Analysis in CEBPA Mutant Acute Myeloid Leukemia Patients.* Completed in 2025.



**M.Phil. RESEARCH SUPERVISED**

<b>No.</b>	<b>Student ID</b>	<b>Student name</b>	<b>Title of theses</b>	<b>Year</b>
1	23-UE-13960	Samavia Abdul Haq	Expressional Evaluation of TET2 Gene mRNA in Chronic Myeloid Leukemia Patients	2025
2	23-UE-13968	Khuram Shehzad	Expressional Analysis of ASXL1 Gene mRNA in Chronic Myeloid Leukemia Patients	2025
3	17-UE-13959	Rabia Talat	Genetic Analysis of ASXL1 Gene Hotspot Regions in Chronic Myeloid Leukemia Patients	2025
4	23-UE-17460	Samia Fiaz	Detection of TET2 Gene Hotspot Mutations in Chronic Myeloid Leukemia Patients	2025
5	22-UE-02721	Nazia Noreen	Exploring the Role of TP53 DNA Binding 6Domain Expression in Progression of C7hronic Myeloid Leukemia	2024
6	22- UE- 02733	Zilmaarij	Sc8reening of TP53 Exon 7 and 8 Mu9tations in Chronic Myeloid Leukemia Patients from Punjab, Pakistan	2024
7	18-UE-01426	Saman Rubi	Identification of TP53 Exon 5 and 6 Alterations in Chronic Myeloid Leukemia Patients from Punjab, Pakistan	2024
8	21-UE-01903	Fatima Yaqoob	Screening of TP53 Exon 3 in CEBPA Mutant Acute Myeloid Leukemia Patients and In Silico Exploration of Possible Variation	2023
9	21-UE-02293	Sakina Ali	Detection of Alterations in TP53 Gene Exon 5 and their Computational Analysis in CEBPA Mutant Acute Myeloid Leukemia Patients	2023
10	21-UE-02361	Asma Tahir	Identification of TP53 Gene Exon 7 Variations in CEBPA Mutant Acute Myeloid Leukemia Patients and their In Silico Analysis	2023
11	20-UE-01407	Amna Munawar	Detection of CEBPA gene alterations in bZip domain and their in silico analysis in Acute myeloid leukemia patients from Central Punjab Pakistan.	2022
12	20-UE-01086	Qamar Abbas	Identification Of Cebpα Gene Alterations In Transactivation Domain And Their Computational Analysis In Acute Myeloid Leukemia Patients From Central Punjab Pakistan.	2022
13	19-UE-00395	Nimra Perveen	Identification of NPM1 Exon 12 Mutations In Acute Myeloid Leukemia Patients From	2021

14	19-UE-00633	Wajiha Asif	Central Punjab, Pakistan Detection of Runx1 exon 5 Alterations in Acute Myeloid Leukemia Patients From Central Punjab, Pakistan	2021
15	18-UE-00924	Hafiza Aqsa Mahmood	Detection of CBF $\beta$ /MYH11(inv16) Fusion Oncogene in Acute Myeloid Leukemia Patients from central Punjab, Pakistan.	2020
16	18-UE-01167	Iqra Khaliq	Identification of RUNX1 Gene Exon 3 and 5 Mutations in Acute Myeloid Leukemia Patients (AML) from central Punjab, Pakistan.	2020
17	17-UE-02664	Aabroo sulehry	Identification and prognostic significance of c.kit exon 17 mutation in Acute Myeloid Leukemia (AML) patients from pakistan.	2019
18	17-UE-02631	Muhammad Umair Afzal	Identification and prognostic significance of K-RAS exon 1 mutations in Acute Myeloid Leukemia (AML) patients from Pakistan	2019
19	PTBF13E009	Sumaya Riaz	Clinical relevance of JAK2 V617F mutation in myeloid type leukemia.	2016
20	PTBF13E010	Fouzia Lal	Molecular identification Of Mycobacterium Tuberculosis in natural reservoirs of Sargodha, Pakistan.	2016
21	PBTf13E20	Bakhtawar Bashir	Molecular identification Of Mycobacterium Tuberculosis in liquid waste of hospitals in Lahore.	2016

---

#### MS. RESEARCH Co-SUPERVISED

No.	Registration No.	Student name	Title of theses	Year
1	18-UE-01372	Ammara Rasheed	Identification of PML-RARA t(15;17) Fusion Transcripts in Acute Myeloid Leukemia Patients From Central Punjab, Pakistan	2020
2	18-UE-00744	Sajid Ali	Detection of AML1-ETO t(8;21) Fusion Oncogene in Acute Myeloid leukemia Patients from Central Punjab, Pakistan.	2020

---

**BS. RESEARCH SUPERVISED**

<b>No .</b>	<b>Registration No.</b>	<b>Student name</b>	<b>Title of theses</b>	<b>Year</b>
1	20-Ue-01565	Saboor Shahban	Assessing the Impact of Exon 5,7 and 11Single nucleotide polymorphism in the ABL1 Gene on Chronic Myeloid Leukemia Through Computational tools	2024
2	20-UE-01016	Maryam Nazir	Computational Evaluation of Exon 4 point alterations in ABL1 Gene in Chronic Myeloid Leukemia patients	2024
3	20-UE-01478	Muhammad Sahid	Detection of Point Mutations in TP53 Gene Intron 7 and 8 in Chronic Myeloid Leukemia Patients	2024
4	20-UE-01094	Maymoona Sahar	In Silico assessment of gene mutations in Exon 6 of ABL1 Gene and Their Impact on Chronic Myeloid Leukemia progression	2024
5	19-UE-01069	Samavia abdulhaq	Computational Exploration of Functional and Structural Impact of Single Nucleotide Changes in DNMT3A Gene among Acute Myeloid Leukemia Patients.	2023
6	19-UE-00924	Anam munir	In silico Post Translational Analysis of Functional Single Nucleotide Alterations in Human TERT Gene Associated With Acute Myeloid Leukemia.	2023
7	19-UE-00700	Maria aslam	In silico Assessment of Post Translational Modifications caused by NRAS Gene SNPs in Acute Myeloid Leukemia patients.	2023
8	18-UE-01122	Khansa Jamil	Computational Evaluation of Single Nucleotide Alterations Reported in Human TP53 Gene among Acute Myeloid Leukemia Patients	2022
9	18-UE-00804	Shanza Chaudhary	<i>In Silico</i> Evaluation of Single Nucleotide Alterations Identified in Human IDH2 Gene among Acute Myeloid Leukemia Patients	2022
10	18-UE-01216	Hamna Mahfooz	Computational Exploration of Single Nucleotide Alterations deteted in Human IDH1 Gene in Acute Myeloid Leukemia Patients	2022

11	18-UE-01272	Wajeeha Mubashir	<i>In Silico</i> Analysis of Single Nucleotide Alterations reported in Human GATA2 Gene among Acute Myeloid Leukemia Patients	2022
12	17UE03501	Taha hussain	Detection of possible alterations in RUNX1 gene exon 3 among Patients of Acute Myeloid Leukemia from Punjab, Pakistan	2021
13	DS150524	Aqsa Zaman	Detection of JAK2 exon 14 Mutations and their Prognostic Relevance in Acute Myeloid Leukemia (AML) Patients From Pakistan.	2019
14	DS150556	Amina Wahid	Screening of c-kit exon 8 Mutations and their Prognostic significance in Acute Myeloid Leukemia (AML) Patients From Pakistan.	2019
15	DS150547	Sana Akbar	Identification of c-kit exon 11 Mutations and their Prognostic importance in Acute Myeloid Leukemia (AML) Patients From Pakistan.	2019
16	DS150554	Zoufishan Yousaf	Screening of N-RAS exon 1 Mutations and their Prognostic significance in Acute Myeloid Leukemia (AML) Patients From Pakistan	2019
17	DS150566	Erum Zafar	Identification of N-RAS exon 2 Mutations and their Prognostic importance in Acute Myeloid Leukemia (AML) Patients From Pakistan.	2019
18	DS150552	Wajiha Asif	Detection of K-RAS Exon 2 Mutations and their Prognostic Relevance in Acute Myeloid Leukemia (AML) Patients From Pakistan.	2019
19	BSZOOOL/F14 /M02	Aliza Aslam	Preventive effects of Basil ( <i>Ocimum basilicum</i> ) against hepatic toxicity induced by Cadmium in Swiss albino mice.	2018
20	BSZOOOL/F14 /M36	Mavera Mukhtar	Preventive effects of Basil ( <i>Ocimum basilicum</i> ) against renal toxicity induced by Cadmium in Swiss albino mice.	2018
21	BSBT021330 18	Mahnoor Fatima Farooqi	Direct sequencing analysis of JAK2 Exon 12 mutations in myeloproliferative neoplasms.	2017
22	BSBT021330 21	Rida Fatima	Clinical relevance of JAK 2 Exon 14 mutations in myeloproliferative neoplasms.	2017

23	BSBT021330	Muhammad	Frequency of JAK2 V617F mutation in	2017
39		Saad Afzal	myeloproliferative neoplasms.	

## ACADEMIC & ADMINISTRATIVE SERVICES

Member Ethical review committee. Division of Science and Technology, UE, Lahore.

Member BoS, Discipline of Zoology, Department of Biological and Chemical Sciences, University of Rasul, Mandi Bahauddin (October 2025 till now).

Member committee, Annual review Division of Science and Technology, 2025.

Member BoS, Department of Zoology, University of Central Punjab Lahore.

Member BOF, Division of Science and Technology, University of Education, Lahore (2021-present)

Member BOS, Division of Science and Technology, University of Education, Lahore (2021-present)

Chairperson, Central Committee for daycare centers (2024-present)

Departmental BoS agenda management (2024-present)

Reviewer for HEC indexed journals – 72 manuscripts to date.

Coordinator, MS Zoology program, Division of Science and Technology, University of Education, Lahore (2017-2024)

Member Admissions committee, Department of Zoology, University of Education, Lahore

QEC sub-coordinator (2017-22) Department of Zoology, University of Education, Lahore

Focal person UMS (2017-2019) Department of Zoology, University of Education, Lahore

## COURSES TAUGHT

- |                                   |  |
|-----------------------------------|--|
| • Human genetics                  | • Basic immunology                             |
| • Developmental biology           | • Hematology                                   |
| • Advances in molecular biology   | • Helminthology and host parasite relationship |
| • Techniques in molecular biology | • Epidemiology of parasitic diseases           |
| • Biosafety and bioethics         | • Biological Techniques                        |
| • Principles of animal life 1&2   | • Molecular Diagnostics                        |
| • Animal diversity 1&2            | • Advanced Molecular Biology                   |
| • Advanced analytical techniques  | • Advances in Oncology                         |

## CONFERENCES/WORKSHOPS/SEMINARS ORGANIZED

Nov 19-20, 2025	4th International conference on Zoological emerging scientific trends, <i>as conference Secretary</i> .
Oct 16-17, 2024	3rd International conference on Zoological emerging scientific trends, <i>as conference Secretary</i> .
March 7-8, 2023	2nd International conference on Zoological emerging scientific trends, <i>as member invitation, finance mobilization and print and publication Committee</i>
Oct 11, 2023	One-day Sericulture Training.
Dec 13, 2022	Organizing team member in 1st One-Day Hands-on training on Animal taxidermy, University of Education, Township Lahore
Nov 25, 2022	Organizing team member of 4th One-Day International Symposium On World Fisheries Day, University of Education, Township Lahore.
Oct 18, 2022	Organizer- Living Beyond Cancer: Tumor and Cell Death
Jan 18-19 2022	Organizing team member; 1st Virtual international conference of Zoology: Zoological Emerging Scientific Trends (ZEST 2022)
Nov 3, 2021	Organizer- virtual seminar on Covid-19 immunization and implications
Feb 20, 2021	Organizing team member Aqua Idea Workshop International 2021
Nov 21, 2020	Member organizing committee “One day international Symposium on World Fisheries day”
Oct 4, 2020	Member organizing committee “World Animal Day”, UE Lahore.
Feb 29, 2020	Session chairperson-Human resources, “AQUA IDEA workshop”.
Feb 07, 2020	Organizing member for the seminar “World Cancer Day”, UE Lahore.
Dec 12, 2019	Organizing Member for a Seminar “ <i>The Zoologist</i> ”, UE Lahore.
April 10, 2019	Organized one day seminar on “Next generation sequencing through gene reader Platform (Preseanted by: Qiagen- Singapur regional team).

April 23-25, 2019      Organizer- 2<sup>nd</sup> International conference on Quality Assurance in higher Education, by “Pakistan Network of Quality Assurance in Higher Education (PNQAHE)”

**AWARDS/ CONFERENCES/ WORKSHOPS/ TRAININGS PARTICIPATED**

Nov, 2025	Acknowledgment in recognition of an outstanding contribution as reviewer- Pakistan Journal of Health Sciences Print ISSN: 2790-9344
Nov 19-20, 2025	Zoological Emerging Scientific Trends. University of Education, Lahore.
Oct 09, 2025	Hands on Training on Patent Drafting and Filing, ORIC- University of Education, Lahore
Oct 16-17, 2024	Zoological Emerging Scientific Trends. University of Education, Lahore.
March 7-8, 2023	Zoological Emerging Scientific Trends. University of Education, Lahore.
Jan 18-19 2022	Zoological Emerging Scientific Trends. University of Education, Lahore.
May 24, 2022	Training session on HEC Disability Policy: Needs and Facilities for Disabled Students
May 16, 2022	Completed One Day Bio-risk management Refresher Training by Association for Biorisk Management-Health Security Partners
Dec 14-18, 2020	Completed Five days Virtual Training on Biorisk Management by, Association for Biorisk Management-Health Security Partners.
Sep 7, 2021	Attended International Webinar on “Skills Development For Research and Innovation” KBCMA CVAS Narowal and ORIC UVAS Lahore.
Feb 23-24, 2019	Presented research findings and participated in educational activity at Highlights of American Society of Hematology (ASH) in Asia-Pacific (Bangkok, Thailand).
Dec 28-29, 2018	Participated in two days dialogue on “Promoting Social Harmony and Critical Consciousness” by Pak Institute for Peace Studies (PIPS).
June 28-29, 2018	Oral Presentation at 5 <sup>th</sup> international conference on Natural and synthetic drugs (CADR), COMSATS university, Islamabad, Abotabad Campus.
Feb 27-Mar 01, 2018	Oral Presentation at 38th Pakistan Congress of Zoology. University of The Punjab, Lahore

Jan 22-24, 2018	Completed three days training on “Andragogical/ Pedagogical Skills” at PHE Staff Development Academy, University of Education, Lahore.
Mar 10-12, 2017	Presented research findings and participated in educational activity at Highlights of American Society of Hematology (ASH) in Asia-Pacific in Hong Kong.
Nov 11-13, 2016	Attended 15th Shaukat Khanum Cancer Symposium
Nov 03, 2016	One day workshop on CRISPR/Cas9 Genome Editing Technology by, National Academy of Young Scientists (NAYS), University of Lahore.
Feb 28-Mar 01, 2015	Presented research findings and participated in educational activity at Highlights of American Society of Hematology (ASH) in Asia-Pacific in Bangkok, Thailand.
Mar 17, 2014	Attended one day Workshop on Recent developments in human nutrition by Nutritionists Association of Pakistan organized at University of Veterinary and Animal Sciences, Lahore.
Mar 3-5, 2012	Attended 32 <sup>nd</sup> Pakistan Congress of Zoology, Government College University, Lahore.
Feb 22-26, 2010	Participated in Honey bee farming and Management Training, Department of Zoology, University of the Punjab, Lahore.
Feb 9-16, 2010	Attended Haemcon 2010. 12 <sup>th</sup> National Haematology conference. Evidence based Haematology. University of The Punjab, Lahore.
Oct 20-21, 2010	Attended National Biotechnology Exhibition and seminar 2010, Institute of Biochemistry and Biotechnology, UVAS, Lahore
Mar 2-4, 2010	30 <sup>th</sup> Pakistan Congress of Zoology, University of The Punjab, Lahore.
Apr 4-6, 2006	Attended 26 <sup>th</sup> Pakistan Congress of Zoology, University of the Punjab, Lahore.

---

## AWARDS AND ACHIEVEMENTS

2019	Awarded travel grant by American society of Hematology (ASH) as sponsored trainee at Highlights of ASH in Asia- Bangkok, Thailand.
2017	Recognized as Productive scientist by <i>Pakistan Council of Science and Technology</i> (PCST).



- 2017      Awarded travel grant by American society of Hematology (ASH) to Present research findings at Presented research findings at Highlights of ASH in Asia- Hong Kong.
- 2015      Awarded travel grant by American society of Hematology (ASH) to Present research findings at Presented research findings at Highlights of ASH in Asia-Bangkok, Thailand.
- 2010      2<sup>nd</sup> position in MS Zoology- Session 2008-2010. University of The Punjab Lahore.
- 2010      2<sup>nd</sup> Position in Poster presentation in 30<sup>th</sup> Pakistan congress of Zoology
- 2008      2<sup>nd</sup> Position in B.S. (Hons) Session 2004-2008. University of The Punjab, Lahore.
- 2004-08      Awarded with Merit scholarship throughout BS. (Hons). University of The Punjab Lahore.
- 2003      Secured 1<sup>st</sup> Position in HSSC Part 2 examination.Awarded a Gold Medal.Pakistan International School and College, Taif KSA.

---

## RESEARCH & ANALYTICAL EXPERTISE

- Molecular genetics and sequencing data analysis
- Bioinformatics analysis using Geneious Prime, MEGA, DNASTAR (SeqMan) and multiple *In-Silico tools*
- Statistical analysis
- Manuscript writing, peer review, and research data interpretation