***Curriculum Vitae of***

Dr. Aneesa Sultan D/O Sultan Sikander

W/O Amir Jamal Malik

***Contact Information:***

Designation: Professor

Institute: Department of Biochemistry

Faculty of Biological Sciences

Quaid-i-Azam University, Islamabad

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***Personal Information:***

Date of Birth: 25-12-1977

Nationality: Pakistani

CNIC Number: 37104-5431905-6

Gender: Female

Marital Status: Married

***Academic Qualification:***

**PhD, 2010:** University of Vienna, Austria

Thesis Title: *Functional Characterization of the Transcription Factor ZEB1 in*

*Epithelial to Mesenchymal Transition and Cancer Progression*.

**Post-Doc 2018**: Medical University of Vienna, Austria

***Academic Awards:***

* Ernst Mach-Nachbetreuungsstipendium (EZA) Award of Post-doctoral fellowship by OeAD, Austria (2018)
* “Overseas scholarship for PhD in selected fields in Austria” from HEC (Higher Education Commission) Pakistan (2005-2009)
* Gold Medal for securing 1st position in the Department during M.Phil from Quaid-I-Azam University, Islamabad. (2003)
* QAU Vice Chancellor’s Merit Scholarship for M.Phil. (2001-2003)

***Professional Experience***

04-04-2023 – To date Professor (Tenured)

Department of Biochemistry,

Faculty of Biological Sciences,

Quaid-i-Azam University, Islamabad

04-04-2019 – 03-04-2023 Associate Professor (Tenured)

Department of Biochemistry,

Faculty of Biological Sciences,

Quaid-i-Azam University, Islamabad

02-05-2011 to 03-04-2019 Assistant Professor

Department of Biochemistry,

Faculty of Biological Sciences,

Quaid-i-Azam University, Islamabad

***Courses Taught in QAU***

* Cancer Genetics. BCH-507 (3+0) for M.Phil and PhD
* Metabolism. BCH-306 (3+1) Core Course for M.Sc
* Fundamental of Human Physiology BCH-318 (3+1) Core Course for M.Sc
* Research Techniques & Instrumentation. BCH-310 (3+1) Core Course for M.Sc
* Vitamins & Hormones. BCH-418 (3+0) Optional Course for M.Sc
* Carbohydrates and Lipids. BCH-103 (3+1) Core Course for BS
* Plant Biochemistry. BCH-340 (2+1) Core Course for BS
* Metabolism. BCH-335 (3+1) Core Course for BS
* Cancer Biology. BCH-467 (3+0) Optional Course for BS

***Grants Secured***

Higher Education Commission’s National Research Program for Universities, Project # 6882. Amount PKR 4.7 M approved in Sep 2017. Duration: 3 years

Title: "Role of CYP Genotypes in Drug Response among Pakistani Breast Cancer patients”

Travel Grant No. 277.25/TG/R&D/HEC/2017, dated October 06, 2017 for presentation of research in the “EMBL Conference: Cancer Genomics” from 05-11-2017 to 08-11-2017 in Heidelberg, Germany.

Startup Research Grant of PKR 0.5M awarded by HEC in 2011

Title: “To analyze the expression of Transcription Factor ZEB1 in Breast cancer specimens.”

University Research Fund awarded by Quaid-i-Azam University in years 2012, 2013, 2014, 2015, 2016, 2017, 2019, 2020, 2021 and 2022.

***PhD Thesis Supervised***

1. Muhammad Usman Tareen (2023) Role of Cytochrome P450 Polymorphism in Activation and Metabolism of Tamoxifen in ER Positive Breast Cancer Patients

1. Touseef Rehan (2020) Chemoprevention of Cancer by Targeting Pro inflammatory Cytokines.
2. Zaineb Akram (2020) Study of Genetics and Telomere Shortening in Aplastic Anemia Patients.
3. Sana Riaz (2019) Cytochrome P450 Genetic Variants as Predictor of personalized Therapy in Pakistani Population.
4. Anwar Ullah (2018) Molecular Genetic Study of Neurodegenerative Movement Disorders in Pakistani Population.

***M.Phil Thesis Supervised***

1. Irshad Ali (2013) Investigation of ZEBI/ deltaEF1 Gene Expression in Breast Cancer Tissue of Pakistani Women.
2. Nabgha E Amen (2013) A Baseline Study for Identification of Torque Teno Virus (TTV) In Subjects Suffering From HCV in Pakistan.
3. Ahmad Khan (2013) Expression analysis of SNAI1/ snail in breast cancer tissue of Pakistani female patients.
4. Maliha Nishan Iqbal (2013) Promotor Methylation Status of E-cadherin gene (CDH1) in breast cancer tissue
5. Anam Nayab (2013) Methylation Analysis of the Promoter Region of SOX-2 Gene in Breast Cancer tissue
6. Akhtar Ali (2013) Methylation Analysis of Twist1 Promotor in Breast cancer tissue.
7. Khair-un-Nisa (2013) Analysis of Methylation Status of NANOG Gene Promotor in Breast Cancer tissue
8. Sahib Zada (2013) Expression analysis of Oct4 Gene in Breast Cancer Tissue of Pakistani Females
9. Bushra Kousar (2014) Gene Expression Analysis of LLGL-2 and ZEB-1 in Normal and Cancerous Breast Tissue of Pakistani Female Patients.
10. Muhammad Afzal (2014) Clinical Assessment of Her-2/Neu Oncogene Over-Expression By FISH on Immunohistochemically Border-Line Cases in Pakistani Breast Cancer Patients.
11. Humaira Mumtaz (2014) Investigation of Plakophilin-3 and ZEB-1 Gene Expression in Normal and Breast Cancer Tissue of Pakistani Women.
12. Sadia Ambreen (2014) Association of Interleukin 18 Promoter Polymorphism With Hepatitis B Viral Load.
13. Saba Arshad (2014) Study of CYP2D6 Gene Polymorphism in Chronic Myeloid Leukemia Patients.
14. Muhammad Usman Tareen (2014) Methylation Analysis of Oct4 gene in AML and ALL Patients.
15. Hanif Ullah (2014) Induction of Leukemia in Swiss Albino Rats through Intravenous Injection of Benzene and Evaluation of Different Medicinal Plants for Subacute Toxicity.
16. Wajiha Sami Malik (2015) Analysis of Epigenetic Modifications in the Regulatory Regions of OCT4 Gene in AML/ALL Patients
17. Sadia Muhammad Din (2015) Spectrum of Cyp2C19\*2 Genetic polymorphism in different Ethnic groups of Pakistan.
18. Sara Kausar (2015) Host Polymorphism as Predictor of Response to Interferon Therapy in HCV genotype 3a Infection
19. Merwah Hamid (2015) Methylation Analysis of Nanog Gene by Using Methylation-specific PCR in AML/ALL Patients.
20. Yusra Latif (2015) Demographic Study of SNP in CYP2C19\*2 Among Pakistani Population
21. Maryam Majeed (2015) Allelic Variation of IL-18 Gene Promoter and Susceptibility to HBV Infection
22. Iqra Ajmal (2015) Evaluation of Polymorphism in CYP2D6\*3, CYP2D6\*4 & CYP2D6\*6 Alleles in Chronic Myeloid Leukemia Patients
23. Arifa Kausar (2016) Establishment of DNA Extraction Protocol for FFPE Tissues and Genetic Screening of *Kras* Mutations in CRC Patients.
24. Noveen Nisar (2016) Genetic Screening of Mutations in the Promoter Region of *HOXA9* in Clubfoot Patients.
25. Hadiya Batool (2016) Evaluation of Chemopreventive and Anti-leukemic Activity of *Ocimum basilicum* Crude Extract and Fractions in Benzene Induced Leukemic Rats.
26. Rabia Ghafoor (2016) Anti-leukemic and Immunomodulatory Effects of *Thymus vulgaris* Extract and Fractions in Benzene Induced Leukemic Rats.
27. Alia Aziz (2016) Expression Analysis of HER-2 Splice Variant (∆16HER-2) in Breast Cancer Patients.
28. Syeda Tabinda Maryam (2016) Expression Analysis of Auto-inhibitory HER-2 Splice Variants in Breast Cancer Patients.
29. Irum Naz (2016) Association of Non-Synonymous Polymorphisms in c-Myc Gene with Increased Risk of Breast Cancer.
30. Muhammad Nouman Malik (2016) Role of CYP2C19 Polymorphism in Activation of Tamoxifen in Breast Cancer Patients.
31. Fizza Tariq (2017) Study of CYP2C9, CYP2C19 and CYP2D6 Genetic Polymorphism in Pakistani Ethnic Groups
32. Anum Khursheed (2017) Breast Cancer: Impact of CYP2C19\*2 Polymorphism on Tamoxifen Metabolism
33. Faiza Abbas (2017) Tamoxifen Pharmacogenomics: Role of CYP2C19\*3 As Predictor of Drug Response in Breast Cancer Patients
34. Maida Ghazanfar (2017) Expression Analysis of HER2 Splice Variants in Concordance with Immunohistochemistry of Breast Cancer Patients
35. Saadia Maryam Saadi (2017) Impact of CYP3A4 Polymorphism on Tamoxifen Metabolism in Breast Cancer Patients
36. Sana Rubab (2017) Association Study of CYP2C19 \*2 and \*17 Genetic Variants with Hypertension
37. Ummara Saleem (2017) Role of CYP3A5 Variants in Tamoxifen Metabolism in Breast Cancer Patients
38. Ayesha Batool (2017) Study of CYP2C9 (\*2 and \*3) Polymorphism in Hypertensive Patients
39. Rida Tanweer (2018) Role of Human Papillomavirus and Epidermal Growth Factor Receptor in Head and Neck Carcinogenesis
40. Qurat-Ul-Ain Safdar (2018) Mutation Analysis of Candidate Genes Involved in Acute Myeloid Leukemia (AML) in Pakistani Population.
41. Tahmina Javed (2018) Investigation of Head and Neck Cancer Related to Human Papilloma Virus and Fibroblast Growth Factor Receptor.
42. Tariq-Ud-Din (2018) Mutation Analysis of Pakistani Families Affected with Hereditary Cerebral Palsy.
43. Faiza Umar (2019) Impact of CYP2C19\*2 Polymorphism on Tamoxifen Metabolism in Breast Cancer Patients.
44. Nida Urooj (2019) Exploration of MDM2 gene for SNP 309 in normal individuals and breast cancer patients.
45. Asifa Jawaid (2019) Investigation of SNP 285 in MDM2 gene in breast cancer patients and healthy controls.
46. Noor Fatima Khalid (2019) Impact of CYP2C19\*3 Polymorphism on Tamoxifen Metabolism in Breast Cancer Patients.
47. Durdana Bibi (2019) CYP2D6\*6 Genotype Frequency and Role in Tamoxifen Metabolism Among Pakistani Breast Cancer Patients.
48. Maryam Anyat Nasrullah (2019) Role of BPA in Prevalence of Breast Cancer in Pakistani Population.
49. Banafsha Hayat (2019) Impact of CYP2D6\*10 Polymorphism on Tamoxifen Hydroxylation Among Pakistani Breast Cancer Patients.
50. Samra Babar (2020) Analysis of BRCA1 and BRCA2 Variants in Breast Cancer Malignancies
51. Afshan Mazhar (2021) CYP2D6 Polymorphism (G1846A and C100T) : Association with HPV Infection in Head and Neck Squamous Cell Carcinoma.
52. Aghna Maryam (2021) CYP1B1 (G355T, C4326G) Polymorphism and its Association with HPV Infection in Pakistani Head and Neck Cancer Patients.
53. Arooba Azeem (2022) YAP 1 and its Mediators as Key Players in Pancreatic Ductal Adenocarcinoma (PDAC): An Investigation through Whole-Exome Sequencing.
54. Iqra Bibi (2022) Investigating the Role of ZEB1 and YAP1 in Pancreatic Ductal Adenocarcinoma through Whole Exome Sequencing.
55. Aroma Tahir (2022) Investigating the Role of PIK3CA and Akt in Head and Neck Squamous Cell Carcinoma through Whole Exome Sequencing.
56. Amna Sajid (2023) Mutation Analysis of TGFβ Pathway in Pancreatic Ductal Adenocarcinoma among Pakistani Population through Whole Exome Sequencing.
57. Anis Ur Rehman (2023) Investigating Aberrations of KMT2C and RGS3 genes in Head and Neck Cancer through Whole Exome Sequencing among Pakistani Population.
58. Laiba Asad (2023) Mutation and Expression Analysis of Gastrointestinal Stromal Tumor Associated Genes Spectrum in a Pakistani Male through Comprehensive Next-generation Sequencing.
59. Sana Batool (2023) Mutational Landscape of Notch Pathway and its Mediators in Oral Squamous Cell Carcinoma through Whole Exome Sequencing

***Current Research Students***

Four PhD and six M.Phil students

***Publications:***

*Published Journal Research Papers*

1. Tareen MU, Riaz S, Malik SS, Zahid S, Khursheed A, Tariq F, Abbas F, Malik MN, Anis RA, Anees M, Murtaza I, Sultan A. CYP2C19\*17 association with higher plasma 4-hydroxy tamoxifen in Pakistani (estrogen-positive) breast cancer patients. Experimental Biology and Medicine (Maywood). 2023:15353702231187640. doi: 10.1177/15353702231187640. Epub 2023 Sep 9.
2. Ishtiaq A, Nasrullah MA, Khan JS, Malik S, Tareen U, Anees M, Sultan A, Murtaza I. A cohort study investigating the role of Bisphenol A in the molecular pathogenesis of breast cancer. Journal of Cancer Research and Clinical Oncology 2023;149(16):14565-14575. doi: 10.1007/s00432-023-05247-3. Epub 2023.
3. Rehan T, Tahir A, Sultan A, Alabbosh KF, Waseem S, Ul-Islam M, Khan KA, Ibrahim EH, Ullah MW, Shah N. Mitigation of Benzene-Induced Haematotoxicity in Sprague Dawley Rats through Plant-Extract-Loaded Silica Nanobeads. Toxics. 2023;11(10):865. doi: 10.3390/toxics11100865.
4. Sarwar S, Tanveer R, Mulla M, Mulla M, Sabir M, Sultan A, Malik SA. Human papillomavirus, tobacco, and poor oral hygiene can act synergetically, modulate the expression of the nuclear factor kappa B signaling pathway for the development and progression of head and neck cancer in the Pakistani population. Chinese Medical Journal. 135(15):1829-1836. 2022 Aug 5. doi: 10.1097/CM9.0000000000001970.
5. Bukhari S, Siddique MH, Naeem A, Khan I, Ali Z, Essa A, Fazal F, Anis RA, Moran L, Sultan A, Murtaza I, Vanhara P, Anees M. Combined efficacy of Cinnamomum zeylanicum and doxorubicin against leukemia through regulation of TRAIL and NF-kappa B pathways in rat model. Molecular Biology Reports. 49(7):6495-6507. 2022 May 17. doi: 10.1007/s11033-022-07478-y.
6. Sarwar S, Tareen MU, Sabir M, Sultan A, Malik SA. NF-κB1 intronic region polymorphisms as risk factor for head and neck cancer in HPV-infected population from Pakistan. Current Molecular Medicine. 22(1):74-82. 2022. doi: 10.2174/1566524021666210302144344.
7. Ishtiaq A, Ali T, Bakhtiar A, Bibi R, Bibi K, Mushtaq I, Li S, Khan W, Khan U, Anis RA, Anees M, Sultan A, Murtaza I. Melatonin abated Bisphenol A-induced neurotoxicity via p53/PUMA/Drp-1 signaling. Environmental Science and Pollution Research. 2021 Apr;28(14):17789-17801. doi: 10.1007/s11356-020-12129-5.
8. Ishtiaq A, Bakhtiar A, Silas E, Saeed J, Ajmal S, Mushtaq I, Ali T, Wahedi HM, Khan W, Khan U, Anees M, Sultan A, Murtaza I. Pistacia integerrima alleviated Bisphenol A induced toxicity through Ubc13/p53 signalling. Molecular Biology Reports. 2020 Aug 8. doi: 10.1007/s11033-020-05706-x.
9. Rehan T, MacEwan D, Shah N, Rehan T, Tahira R, Murad S, Anees M, Murtaza I, Farman M, Sultan A. Apoptosis of Leukemia Cells by *Ocimum basilicum* Fractions Following TNF alpha Induced Activation of JNK and Caspase 3. Current Pharmaceutical Design. Oct 2019.

doi: 10.2174/1381612825666191011100826.

1. Khan AHA, Ayaz M, Arshad M, Yousaf S, Khan MA, Anees M, Sultan A, Nawaz I, Iqbal M. Biogeochemical Cycle, Occurrence and Biological Treatments of Polycyclic Aromatic Hydrocarbons (PAHs). Iranian Journal of Science and Technology Transaction A-Science. June 2019; 43 (A3): 1393-1410
2. Riaz S, Din SM, Tareen MU, Tariq F, Latif Y, Siddiqi S, Sultan A, Mansoor A. Genetic Polymorphism of CYP2C19 in Pakistani Population. Iranian Journal of Pharmaceutical Research. April 2019; 18(2): 1097-1102.
3. Riaz S, Mansoor A, Siddiqi S, Tareen MU, Rubab S, Batool A, Anwarullah, Sultan A. Association of CYP2C19\*2 and \*17 genetic variants with hypertension in Pakistani population. Tropical Journal of Pharmaceutical Research. April 2019; 18 (4): 851-855
4. Akram Z, Ahmed P, Kajigaya S, Satti TM, Satti HS, Chaudhary QUN, Gutierrez-Rodrigues F, Ibanez PF, Feng X, Mahmood SK, Ghafoor T, Shahbaz N, Khan MA, Sultan A. Epidemiological, clinical and genetic characterization of aplastic anemia patients in Pakistan. Annals of Hematology. Feb 2019;98(2):301-312. doi: 10.1007/s00277-018-3542-z.
5. Jan MI, Khan RA, Sultan A, Ullah A, Ishtiaq A, Murtaza I. Analysis of NT-proBNP and uric acid due to left ventricle hypertrophy in the patients of aortic valve disease. Pakistan Journal of Medical Sciences. Jan-Feb 2019;35(1):183-188. doi: 10.12669/pjms.35.1.148
6. Ali T, Mushtaq I, Maryam S, Farhan A, Saba K, Jan MI, Sultan A, Anees M, Duygu B, Hamera S, Tabassum S, Javed Q, da Costa Martins PA, Murtaza I. Interplay of N acetyl cysteine and melatonin in regulating oxidative stress-induced cardiac hypertrophic factors and microRNAs. Archives of Biochemistry and Biophysics. 2019; 661:56-65. doi: 10.1016/j.abb.2018.11.007.
7. Rehan T, Tahira R, Ullah H, Tareen U, Rehan T, Anees M, Murtaza I and Sultan A. In vitro bioactivities and subacute toxicity study of *O. basilicum, T. vulgaris* and *R. officinalis*. Turkish Journal of Biochemistry. 2018 Aug. 43 (4): 447-455 DOI: <https://doi.org/10.1515/tjb-2017-0267>
8. Jan MI, Khan RA, Malik A, Ali T, Bilal M, Bo L, Sajid A, Urehman N, Waseem N, Nawab J, Ali M, Majeed A, Ahmad H, Aslam S, Hamera S, Sultan A, Aneesa M, Javed Q and Murtaza I. Data of expression status of miR- 29a and its putative target mitochondrial apoptosis regulatory gene DRP1 upon miR-15a and miR-214 inhibition. Data in Brief. 2017 Dec. 20(16):1000-1004. doi: 10.1016/j.dib.2017.12.040.
9. Anwarullah, Sultan A, Usmani MA, Ghaffar M, Ali J, Badshah M, Ahmad N. Absence of SNCA polymorphisms in Pakistani Parkinsons disease patients. JPMA. Journal of the Pakistan Medical Association. 2017 Oct; 67(10):1512-1516.
10. Jan MI, RA Khan, T Ali, MBilal, L Bo, A Sajid, A Malik, N Urehman, N Waseem, J Nawab, M Ali, A Majeed, H Ahmad, S Aslam, S Hamera**,** A Sultan, M Anees, Q Javed , I Murtaza. Interplay of mitochondria apoptosis regulatory factors and microRNAs in valvular heart disease. Archives of Biochemistry and Biophysics. Online 6 September 2017. doi.org/10.1016/j.abb.2017.09.001.
11. Anwarullah A, Paramasivam N, Abbasi R, Khan K, Sultan A, Schlesner M, von Engelhardt J, Ahmad N, Aslam M. A report of whole-genome sequencing in neurologic Wilson's disease. Neurology India. 2017 May-Jun;65(3):629-631.
12. Anwarullah A, Aslam M, Badshah M, Abbasi R, Sultan A, Khan K, Ahmad N, Engelhardt JV. Further evidence for the association of CYP2D6\*4 gene polymorphism with Parkinson’s disease: a case control study. Genes and Environment. 2017 Jul 1;39:18. doi: 10.1186/s41021-017-0078-8.
13. Aqib Hassan Ali Khan, Sundus Tanveer, Shagufta Alia, Mariam Anees, Aneesa Sultan, Mazhar Iqbal, Sohail Yousaf. Role of nutrients in bacterial biosurfactant production and effect of biosurfactant production on petroleum hydrocarbon biodegradation. Ecological Engineering 104 (2017) 158–164
14. Obaid-ur-Rahman Abid, Muhammad Ayaz, Wajid Rehman, Kamran Mehdi, Arif Ali, Abdul Wadood, Fazal Rahim, Aneesa Sultan, Mehreen Ghufran, Sadullah Mir, Muhammad Tauseef Qureshi. Synthesis, Enzyme Inhibition, and Molecular Docking Studies of Hydrazones from Dichlorophenylacetic Acids. Journal of the Chinese Chemical Society. 63 (12):1015-1021. 2016 Dec. DOI: 10.1002/jccs.201600163
15. Sajid Mansoor, Sana Riaz, Sara Kausar, Sadia Muhammad Din, Aneela Javed, Aneesa Sultan, Atika Mansoor. Can IFNL3 polymorphisms predict response to interferon/ribavirin treatment in hepatitis C patients with genotype 3? Journal of General Virology. 2016 Oct;97(10):2592-2598
16. Muhammad Nawaz, Farah Fatima, Irina Nazarenko, Karin Ekström, Iram Murtaza, Mariam Anees, Aneesa Sultan, Luciano Neder, Giovanni Camussi, Hadi Valadi, Jeremy A. Squire & Thomas Kislinger. Extracellular vesicles in ovarian cancer: applications to tumor biology, immunotherapy and biomarker discovery. Expert Review of Proteomics. 2016;13(4):395-409.
17. Afzal M, M Amir, M J Hassan, S Murad, I Murtaza, M Anees and A Sultan. Clinical Role of HER2 gene Amplification and chromosome 17: Study on 154 IHC-Equivocal Cases of Invasive Breast Carcinoma Patients. Tumor Biology. 2016 Jan 6.: 37(7):8665-72.
18. Murad S, A Anwar, ZZ Piracha, A Sultan. LRIG1 expression during homeostasis and skin wound healing in mice Journal of Biological Regulators and Homeostatic Agents. 2015 Oct-Dec;29(4):829-33.
19. Ahmed I, M Sajed, A Sultan, I Murtaza, S Yousaf, B Maqsood, P Vanhara, M Anees. The erratic antibiotic susceptibility patterns of bacterial pathogens causing urinary tract infections. EXCLI Journal. 2015 Aug 4;14:916-25.
20. Summer G, S Murad, N Ehsan, P Bloodsworth, A Sultan and M Faheem. “Transcriptional up-regulation of BMP-4 and BMPR-II genes in the peripheral blood of breast cancer patients: A pilot study.” Cancer Biomarkers. 2015 ;15(5):551-7
21. Anees M, R A Anis, S Yousaf, I Murtaza, A Sultan, M Arslan, M Shahab. Effect of maternal iodine supplementation on thyroid function and birth outcome in goiter endemic areas. Current Medical Research and Opinion. 2015 Apr;31(4):667-74.
22. Noreen M, S Murad, M Furqan, A Sultan, P Bloodsworth. Knowledge and Awareness about Breast Cancer and its Early Symptoms among Medical and Non-Medical Students of Southern Punjab, Pakistan. Asian Pacific Journal of Cancer Prevention. 2015;16(3):979-84.
23. Spaderna S, O Schmalhofer, M Wahlbuhl, A Dimmler, K Bauer, A Sultan, F Hlubek, A Jung, D Strand, A Eger, T Kirchner, J Behrens, T Brabletz. The EMT inducer ZEB1 promotes metastasis and a loss of cell polarity in cancer. Cancer Research. 2008 Jan 15;68(2):537-44.
24. Aigner K, B Dampier, L Descovich, M Mikula, A Sultan, M Schreiber, W Mikulits, T Brabletz, D Strand, P Obrist, W Sommergruber, N Schweifer, A Wernitznig**,** H Beug, R Foisner and A Eger. The transcription factor ZEB1 (δEF1) induces tumour cell dedifferentiation by repressing master regulators of epithelial polarity. Oncogene. 2007 Oct 25;26(49):6979-88.
25. Aigner K, L Descovich, M Mikula, A Sultan, B Dampier, S Bonne, M Schreiber, FV Roy, W Mikulits, T Brabletz, H Beug, R Foisner and A Eger. The transcription factor ZEB1 (δEF1) represses Plakophilin 3 during human cancer progression. 2007. FEBS Letters. 2007 Apr 17;581(8):1617-24.
26. Zafar M, Y Mussaddeq, S Akhter and A Sultan. Weight-length and condition factor relationship of thaila, *Catla catla* from Rawal dam Islamabad, Pakistan. 2003. Pakistan Journal of Biological Sciences 6(17): 1532-1534.

*Conferences/Symposium:*

1. Saeed T, Ahmad N, Zubair S, Sultan A, Abbasi R. 2023. A Pharmacological Network Based Approach to Identify Chemotherapeutics and Natural Compliments Targets. Shaukat Khanum Cancer Symposium. November 3-5, 2023. Serena Hotel, Peshawar Pakistan.
2. Aneesa Sultan\*, Muhammad Afzal, Anum Khursheed and Mohammed Amir. 2017. HER2 Gene Amplification & Chromosome 17 aneusomy in IHC Equivocal Cases. EMBL Conference, Cancer Genomics. November 5 - 8 2017. Heidelberg, Germany.
3. Touseef Rehan, Mariam Anees and Aneesa Sultan\*. 2015. Screening of *Rosemarinus officinalis, Thymus vulgaris* and *Scabiosa candollie* for subacute toxicity in male albino Rats of Sprague Daweley strain. 7th Chemistry Conference 2015 on “Chemistry in Engineering and Life Sciences”. November 24-26, 2015. PINSTECH.
4. Ali I,A Sultan**.** 2013. Investigation of ZEB1/Delta‐EF1 Gene Expression in Breast Cancer Tissue of Pakistani Women. International Conference on the Applications of Molecular Biology in Medicine and Agriculture. August 20‐22, 2013. Quaid-i-Azam University, Islamabad.
5. Rehan T, A Sultan, U Malik, A Zahra, M Khan, S A Malik, A A Khan. 2013. Epigenetic Analysis of Embryonic Stem Cells Specific Genes in Blood of Normal and Leukemic Patients. International Conference on the Applications of Molecular Biology in Medicine and Agriculture. August 20‐22, 2013. Quaid-i-Azam University, Islamabad.
6. Sultan A, K. Aigner, L. Descovich, H. Beug, R. Foisner and A. Eger . 2007. The Transcription Factor ZEB1 (δEF1) Promotes Tumor Cell Dedifferentiation by Repressing Master Regulators of Epithelial Polarity. 32nd FEBS Congress, Molecular Machines, July 7-12, 2007 Vienna, Austria.
7. Azeemi N Z and A Sultan. Characterization of Bioinformatics Applications on Multimedia Processor, in Proc. Proceedings Cairo International Biomedical Engineering Conference 2006, Cairo, Egypt, December, 2006.
8. Azeemi N Z, A Sultan and A. Muhammad. Parameterized Characterization of Bioinfomatics Workload on SIMD Architecture, in Proc. 2006 International Conference on Information and Automation, pages 189 - 194, Colombo, Sri Lanka, December, 2006.
9. Sultan A**,** Fazle-Subhan, F Tahir, M Qayyum, A Khanum and A Dil. 2001. Serum Alpha Feto-

Protein(AFP) and Beta Human Chorionic Gonadotropin (ß-hCG) levels as tumor markers. 21st Pakistan Congress of Zoology held at University of Agriculture Faisalabad Pakistan. 15-17. March, 2001.