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Qualification

Year	Degree/Certificate	Name of the Institute/ University	Field of study
	PhD	CEMB/CDC, PU & CDC USA	Molecular Virology
	MS/ Mphil	BUITEMS	Biotechnology
	Graduation	University of Balochistan	Biochemistry/ LLB

Publications in HEC Recognized journals

S. No	Title of Paper	Name of Journal	National/ International	Publication date
	Natural products as bioactive agents in the prevention of dementia	CNS & Neurological Disorders-Drug Targets	International	2023
	Genotypic distribution of human papillomavirus and phylogenetic analysis of E6 and E7 gene of HR-HPV variants isolated from Pakistani population	Medicine	International	2023
	In-silico studies of inhibitory compounds against protease enzymes of SARS-CoV-2	Medicine	International	2023
	Serum MicroRNAs as Predictors for HCV Progression and Response to Treatment in Pakistani Patients	Genes	International	2023
	Biocontrol rhizobacteria enhances growth and yield of wheat (Triticum aestivum) under field conditions against Fusarium oxysporum	Bioengineered	International	2023
	Expression of Chitinase and shRNA Gene Exhibits	Genes	International	2023

Resistance to Fungi and Virus			
Statement in Support of: "Virology under the Microscope-a Call for Rational Discourse".	mSphere.	International	2023
Statement in Support of: "Virology under the Microscope-a Call for Rational Discourse	J Virol.	International	2023
Statement in Support of:"Virology under the Microscope—a Call for Rational Discourse"	Mbio	International	2023
New challenges in the use of nanomedicine in cancer therapy	Bioengineered	International	2022
DNA methylation across the tree of life, from micro to macro-organism	Bioengineered	International	2022
Antiplatelet response to clopidogrel is associated with a haplotype in CYP2C19 gene in Pakistani patients	Scientific Reports	International	2022
Role of tyrosine kinase inhibitor in chronic myeloid leukemia patients with SARS-CoV-2 infection: A narrative Review	Medicine	International	2022
Cytogenetical and hematological analysis of chronic myelogenous leukemia patients with a novel case 52XX, t (1; 9; 22)(q23. 3; q34; q11. 2),+ 6,+ 8, i (9)(q10; q10),+ 18,+ 19,+ 21+ der22 t (9; 22)(q34; q11)	Medicine	International	2022
Genome-wide identification and evolutionary analysis of CNGC gene families in sixteen Brassicaceae plant genomes	Turkish Journal of Botany	International	2022
Molecular characterization, purification, and mode of action of enterocin KAE01 from lactic acid bacteria and its in silico analysis against MDR/ESBL Pseudomonas aeruginosa	Genes	International	2022
Full Length Genome and Partial Viral Genes Phylogenetic and Geographical Analysis of Dengue Serotype 3 Isolates.	Microorganisms	International	2021
Thalassemia patients from baluchistan in Pakistan are infected with multiple hepatitis B or C virus strains	The American journal of tropical medicine and hygiene	International	2021
Potential Therapeutic Natural Products against Alzheimer's disease with Reference to Acetylcholinesterase.	Biomedicine & Pharmacotherapy, 2021	International	2021
Inter-ethnic genetic variations and novel variant identification in the partial sequences of CYP2B6 gene in Pakistani population	Peer J	International	2021
Estimation of polymorphisms in the drugmetabolizing enzyme, cytochrome P450 2C19 gene in six major ethnicities of Pakistan	Bioengineered,	International	2021
Molecular, cytogenetic, and hematological analysis of chronic myeloid leukemia patients and discovery of two novel translocations	Analytical Cellular Pathology	International	2021
Investigation and Prevalence of Hepatitis C Virus Genotypes in Pregnant Women	Int J Hum Genet,	International	2021
Prevalence of Iron–Deficiency Anemia in Pregnant	Pak-Euro	National	2021

Women of Rural and Urban Areas of Balochistan, Pakistan	Journal of Medical and Life Sciences		
XPC gene mutations in families with xeroderma pigmentosum from Pakistan; prevalent founder effect	Congenital anomalies	International	2019
Molecular analysis of V617F mutation in Janus kinase 2 gene of breast cancer patients	Saudi Journal of Biological Sciences	International	2019
ANTIPLATELET EFFECTS OF SOME CYCLOOXYGENASE-2 INHIBITORS IN EXPERIMENTAL HYPERCHOLESTEROLEMIA IN RABBITS	TUBERCULOSIS	International	2017
A rare case of three-way complex variant translocation in chronic myeloid leukemia t (6; 9; 22)(p21; q34; q11): a case report	Biomedical Reports	International	2017
Construction of Mammalian Expression Vector of Core Gene of HCV of Pakistani Isolate Genotype 1a	Journal of Human Virology & Retrovirology	International	2016
A novel four-way complex variant translocation involving chromosome 46, XY, t (4; 9; 19; 22)(q25: q34; p13. 3; q11. 2) in a chronic myeloid leukemia patient	Frontiers in oncology	International	2016
Influence of Hepatitis B virus genetic heterogeneity on treatment response against Lamivudine and Interferon in Pakistani isolates	Anti-Infective Agents	International	2016
A rare case of a three way complex variant positive Philadelphia translocation involving chromosome (9; 11; 22)(q34; p15; q11) in chronic myeloid leukemia: A case report	oncology letter	International	2016
The association of nutritional profile and prognosis of degenerative diseases associated with carbohydrate and lipid metabolism at high altitude of district Ziarat, Pakistan	Saudi Journal of Biological Sciences	International	2015
Assessment of the role of general, biochemical and family history characteristics in kidney stone formation	Saudi journal of biological sciences	International	2015
Assessment of circulating biochemical markers and antioxidative status in acute lymphoblastic leukemia (ALL) and acute myeloid leukemia (AML) patients	Saudi journal of biological sciences	International	2015
Phylogenetic and 2D/3D Analysis of HCV 1a NS4A Gene/Protein in Pakistani Isolates	Hepatitis Monthly	International	2015
Detection of BCR/ABL fusion gene by hematological and cytogenetical analysis in chronic myeloid leukemia patients in Quetta, Pakistan	Asian Pacific Journal of Cancer Prevention	International	2015
Three-way complex variant translocation involving short arm chromosome (1; 9; 22)(p36; q34; q11) in a chronic myeloid leukemia patient	Oncology Letters	International	2015
Inhibitory effect of kaolin minerals compound against hepatitis C virus in Huh-7 cell lines	BMC Research Notes	International	2014
Anti-Inflammatory and Antiplatelet Activities of Plasma Are Conserved Across Twelve Mammalian	Molecules	International	2014

Species			
Estimation of Hemoglobin Level among Different Age Groups in SBK Women's University Quetta	Global Journal of Biotechnology & Biochemistry	International	2014
Process Development to Augment the Production of Microbial Extra Cellular Protease using Response Surface Methodology	Journal of Pure and Applied Microbiology	International	2014
Multiple pathways are responsible for Anti-inflammatory and Cardiovascular activities of Hordeum vulgare L.	Journal of translational medicine	International	2014
Seroepidemiology of dengue fever in Khyber Pakhtunkhawa, Pakistan	International Journal of Infectious Diseases	International	2013
The first complete genome sequence of HCV-1a from Pakistan and a phylogenetic analysis with complete genomes from the rest of the world	Virology journal	International	2013
Biochemical markers of ethnic Pakistanis: A correlation between genetic-alloofness and nutritional status affecting average age of each group	African Journal of Biochemistry Research	International	2013
Molecular and physiological determinants of pulmonary developmental biology: a review	Am J Biomed Res	International	2013
Study of 3D Structural Model of Granzyme H to Predict Different Sites Involved in Substrate and Inhibitor Recognition during Apoptosis	Journal of Applied and Emerging Sciences	International	2013
The Molecular Architecture of HCV: A review	Journal of Applied and Emerging Sciences	International	2013
Hepatitis E virus-associated aplastic anaemia: the first case of its kind	Journal of clinical virology	International	2012
Association of hepatitis C virus with insulin resistance: evidences from animal studies and clinical studies	Hepatitis Monthly	International	2012
Prevalence of HBV infection in suspected population of conflict-affected area of war against terrorism in North Waziristan FATA Pakistan	Infection, Genetics and Evolution	International	2012
Dengue virus serotype 2 (DEN-2): the causative agent of 2011-dengue epidemic in Pakistan	Am J Biomed Sci	International	2012
Scale up studies for the production of protease enzyme using Bacillus subtilis adopting response surface methodology	Afr Journal of Mic	International	2012
Association of hepatitis C virus with insulin resistance: evidences from animal studies and clinical studies.	Hepatitis Monthly	International	2012
Hepatitis associated aplastic anemia: a review	Virology Journal	International	2011
PCR could be a method of choice for identification of both pulmonary and extra-pulmonary tuberculosis	BMC Research Notes	International	2011

Hepatitis B virus in Pakistan: a systematic review of prevalence, risk factors, awareness status and genotypes	Virology journal	International	2011
Effects of host and virus related factors on interferon- α + ribavirin and pegylated-interferon+ ribavirin treatment outcomes in chronic Hepatitis C patients	Virology journal	International	2011
Serotype and genotype analysis of dengue virus by sequencing followed by phylogenetic analysis using samples from three mini outbreaks-2007-2009 in Pakistan	BMC microbiology	International	2011
High baseline interleukine-8 level is an independent risk factor for the achievement of sustained virological response in chronic HCV patients	Infection, Genetics and Evolution	International	2011
Hepatitis C virus genotype 3a with phylogenetically distinct origin is circulating in Pakistan	Genetic Vaccines and Therapy	International	2011
Occult hepatitis C virus infection and associated predictive factors: the Pakistan experience	Infection, Genetics and Evolution	International	2011
Evaluation of three different hepatitis C virus typing methods for detection of mixed-genotype infections	Journal of Digestive Diseases	International	2011
Isolation and characterization of two new hepatitis E virus genotype 1 strains from two mini-outbreaks in Lahore, Pakistan	Virology Journal	International	2011
An overview of treatment response rates to various anti-viral drugs in Pakistani Hepatitis B Virus infected patients	Virology journal	International	2011
Envelope 2 protein phosphorylation sites S75 & 277 of hepatitis C virus genotype 1a and interferon resistance: A sequence alignment approach	Virology Journal	International	2011
Positional effect of phosphorylation sites 266 and 267 in the cytoplasmic domain of the E2 protein of hepatitis C virus 3a genotype: Interferon Resistance analysis via Sequence Alignment	Virology journal	International	2011
Establishment of stable Huh-7 cell lines expressing various hepatitis C virus genotype 3a protein: an in-vitro testing system for novel anti-HCV drugs	Genetic Vaccines and Therapy	International	2011
Hepatitis G virus associated aplastic anemia: a recent case from Pakistan	Virology journal	International	2011
Characterization of Hepatitis C Virus genotype 3a Hypervariable region 1 in patients achieved rapid virological response to alpha interferon and Ribavirin Combination therapy	Virology Journal	International	2011
Serotype and genotype analysis of dengue virus by sequencing followed by phylogenetic analysis using samples from three mini outbreaks-2007-2009 in Pakistan	Virology Journal	International	2011
Hepatitis C treatment: current and future perspectives	Virology journal	International	2010
The changing epidemiology pattern and frequency distribution of hepatitis C virus in Pakistan	Infection, Genetics and	International	2010

	Evolution		
Mutations in the E2-PePHD region of hepatitis C virus genotype-3a and correlation with response to interferon and ribavirin combination therapy in Pakistani patients	Virology Journal	International	2010
Assessment of chromium concentrations in soil-plant-animal continuum: Possible risk for grazing cattle	Pak. J. Bot	National	2010
Folic acid and vitamin B6 deficiencies related hyperhomocysteinemia in apparently healthy Pakistani adults; is mass micronutrient supplementation indicated in this population	Journal of the College of Physicians and Surgeons Pakistan	National	2009
N-acetyl-BD-glucosaminidase and inflammatory response after cardiopulmonary bypass	Journal of The College of Physicians and Surgeons Pakistan	National	2008
High prevalence of hepatitis C virus infection in the largest province of Pakistan	Journal of digestive diseases	International	2008
Frequency distribution of hepatitis C virus genotypes in different geographical regions of Pakistan and their possible routes of transmission	BMC infectious diseases	International	2008
Human paraoxonase and HDL-Cholesterol in Pakistani patients with acute myocardial infarction and normal healthy adults	Pakistan Journal of Medical Sciences	National	2007
Role of vitamins B6, B12 and folic acid on hyperhomocysteinemia in a Pakistani population of patients with acute myocardial infarction	Nutrition, metabolism and cardiovascular diseases	International	2005
Lack of association of methylenetetrahydrofolate reductase 677C> T mutation with coronary artery disease in a Pakistani population	Journal of molecular and genetic medicine: an international journal of biomedical research	International	2005
A simple and sensitive radioenzymatic assay for pyridoxal 5'-phosphate in human plasma	Pakistan journal of zoology	National	2003

Paper Presented

S. No	Title of Paper	Name of Conference	National/ International	Date
	Diuretic effect of gentaine oliveri its aalkaloid gentanine:	Botanical Society of America,	International	2005

Books Authored/ Edited NA

S.	Name of book	Publisher	ISBN
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No				
Work Experience				
S. No	From (year)	To (year)	Name of the Institution/ Organization	Position held
1	2018	2022	BUIITEMS	Professor
	2014	2018	BUIITEMS	Associate Professor
	2007	2014	BUIITEMS	Assistant Professor
	2004	2007	BUIITEMS	Lecturer
	2002	2004	AKU	Research Associate
Area of specialization			Clinical Virology	
Research Interest			Virology	
Future Research Plans			Clinical Research	
HEC Approved supervisor			NA	
If Yes, provide HEC URL				
Research grants/ Projects				
Additional Information				

Community / Volunteer work

COVID-19 Senior Lab Specialist Quetta/ Balochistan, (SLSQ) (Project

Cost: 150 million PKR)

Bolan Medical Complex SARS-CoV-2 Laboratory

- Led the process of restructuring/ redesigning of laboratory with Glass work/aluminium work as per requirement of SARS-CoV-2 Lab.
- Facilitated training of technician, microbiologist, pathologist, and volunteer Bolan Medical Complex SARS-CoV-2 lab.
- Supported and coordinated establishment of Lab at BMCH for Doctors, later it was approved for UN/WHO Staff.
- Developed lab management mechanism with identification of technical personnel and arranged two fresh microbiologists.
- Coordinated arrangement and placement of equipment for the lab with the support of NIH, WHO, NDMA and GoB. The laboratory was formally inaugurated by Secretary Health.

Sheikh Khalifa Bin Zayed Al-Nahyan Medical Complex SARS-CoV-2 Laboratory

- Supported and led the establishment of a new laboratory at Sheikh Khalifa Bin Zayed Al-Nahyan Medical Complex.
- Provided technical inputs and coordinated the purchase/installation of equipment's, consumables, and reagents for laboratory.
- The Laboratory Technical Management team was identified/ appointed with coordination of Executive Director of SKBZ Medical Complex.
- To enhance the technical capacity for laboratory for three shifts, eight volunteers were requested by personal efforts to work at the laboratory.
- Supervised the establishment reporting mechanism with coordination of PMDU and GoB at SKBZ laboratory.

Facilitated Dept of Health in procurement of equipment's/ consumables and reagents for SKBZ Lab

Biological Safety Cabinets, Class II Type B2, UVP Standard UV PCR Workstations, Ultra-low temperature freezer -80°C Upright with racks and Sample Boxes, General Purpose -30°C Freezers, 100-liter autoclave, Mini Centrifuges (Strip Spin/ Plate), High Speed refrigerated Microcentrifuge, Water Bath Digital, Vortex Meter, Micro pipette (two sets), Multi-channel Pipette (Two sets), 6 Place Pipette Stand, Aluminium tube rack for 0.2ml PCR tubes, RT-PCR Machine Along with Computer system/UPS (NDMA), Air Conditioner (4 Nos), SARS-CoV-2 PCR kits (24. 50, 96 Samples) Primers, Mastcr- Mix with Positive Control, Manual extraction Kits (NDMA), PCR Plates, tubes RNAase free, Micro pipette Tips (Aerosol Filter Tips/Rnase Free) 5,10 100, 250,750 and 1000uL, Eppendorf tube 1.5 ml RNAase Free, Cryogenic vials

sterilized, Eppendrop Tubes, RNase-Away, N-95 Mask, Masks, Gloves, Bio-Hazard Bags, Absolute Ethanol, Surgical Caps and Face Shield etc.,

Pakistan COVID-19 Webinar/ Sandia National Laboratories USA (COVID-19 safe and secure samples collection, transport, and testing methods.).

Organized webinar for technical staff of the laboratories in Balochistan with the support of Sandia National Laboratories. The participant received a certificate.

- The resources persons were Melissa Finley, (DVM, PhD, Dip ACVIM) Waleed Joyan, (MSGH, GHP) and Farid Azizi, (DVM, PhD).

Coordination/Meetings

- The undersign were in touch/meetings with operational cell of Health Department and attended many meeting regarding SARS-CoV-2; NCOC, Core committee and Health Department officials (Secretary of Health, DG, Laboratory In charge, Focal persons, Laboratory Staff, IT wing, sample collection teams and CMDU unit at CM Secretariat to sort out issue on daily bases.
- The undersigned helped the Chief Planning Officer, Health Department in PC-1for divisional laboratories and is approved by in the budget 2021 by GoB.

Technical HR Capacity.

- **Molecular Diagnostic Center (MDC-BMCH)**

The Senior Lab Specialist Quetta, (SLSQ), with the approval Secretary Health, in coordination of MS, In-charge MDC(BMCH) and SDO identified a building for MDC at BMCH for restructuring for BSL-I & BSL-II requirements.

A mechanism was developed for regular visits to monitor the progress by SLSQ in coordination with Laboratory In charge MDC (BMCH), MS (BMCH), Secretary Health and WHO.

- **Visit to Loralai for establishment of New BSL-II laboratory.**

To build a new BSL-II laboratory Divisional Headquarter Hospital Loralai, a meeting at DHQ Hospital was held, myself and WHO Provincial Head discussion regarding the requirement of the lab and building. A meeting was organized with commissioner Loralai in this regard.

- **Visit to Turbat/Ketch for establishment of New BSL-II laboratory.**

The undersigned paid a visit to kech for establishment of new laboratory at Divisional Headquarter Hospital. A local Notable agreed to support lab. A talked was delivered to doctors regarding COVID and its molecular detection.

- **ABI-RT PCR (WHO) Placement**

The above machine was sent by country Head office, in a meeting with Secretary Health directed undersigned regarding placement at Kech, after placement of other equipment at concerned laboratory.

- **Support to World Bank (PREP)**

Upon the direction/ request by the Secretary Health the undersigned (SLSQ) to support Provincial Coordinator of EPI in a World Bank project related to COVID at all seven DHQs Hospitals. Requirement of Divisional Laboratory were taken up Federal DG Health.

- **PC-I, Construction of new BSL-II labs in Divisional HQs (Loralai, Sibi, Turbat, Kharan & Naseerabad)**

The Secretary Health desired and communicated to SLSQ to review the above PC-I, to remove the duplication and bring the cost down. The said document was revised and modified. The cost was brought down from Rs. 587.9 million to 128 million, with help Chief Financial Officer, Health Department.

In addition to full that support is provided to EPI in world Bank project of USD 12 Million for GoB, with a share of 105Million for Lab plus equipment's will be purchased by Federal Government.

So far, able to save an amount of Pak Rs 451.00 million (PC-I Rs.558 to 128 million, tracking of Bio-rad machine $4.5*2=9.0$ million and re-structuring of building assured by Notables and commissioner of Loralai) in the current month.

Member of Core Committee, Government of Balochistan, led by Chief Secretary of Balochistan.

Team Leader: COVID-19 laboratory establishment in Balochistan.

Increase the capacity of FJ laboratory at Quetta.

Dengue outbreak Lahore (2011)

Member of Dengue research group, the group performed around 30000 test Elisa/nested PCR based with the support of Government of Punjab and University of the Punjab. Part of the data was also published.

Logistic Manager of BUISTEMS (Earthquake 2005 in Pakistan)

Managed and collected contributions for the community and university under the lead of Vice Chancellor BUISTEMS. All the contribution and base camp at Balakot. Earthquake of magnitude $M_w=7.6$ occurred in the NE of Pakistan on Oct. 8, 2005, with epicenter was located at about 10 km in the east of Balakot. The camp remained for 45 Days, with 60 team members.