

Dr Saba Khaliq
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Academic/Professional Record

From	To	Position	Institute	Country	Degree/remarks
12.2018	To date	Tenured Associate Professor	University of Health Sciences, Lahore	Pakistan	40% Research 40% Teaching 20% Administration
04.2011	12.2018	Assistant Professor	University of Health Sciences, Lahore	Pakistan	50% Research 40% Teaching 10% Administration
11.2013	06.2014	Post-doctoral fellow	George-August-Universität, Göttingen	Germany	100% Research
08.2010	03.2011	Research Associate	Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore	Pakistan	100% Research
01.2005	08.2010	Doctoral Student	National Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore	Pakistan	PhD in Molecular Biology
09.2001	09.2003	Student	Government College University, Lahore	Pakistan	Master of Science in Zoology
09.1999	09.2001	Student	University of the Punjab, Lahore	Pakistan	Bachelors of Science.

Employment Record with description

Name of Organization	Post/Designation	Job Profile/ service activity	Period
Institute of Allied Health Sciences, University of Health Sciences, Lahore	Director/ Tenured Associate Professor	<ul style="list-style-type: none"> • Management of different administrative duties at departmental and University levels • Management of all On-campus BS (hons) and DPT programs • Start and management of Allied health sciences undergraduate program at Jinnah Campus, UHS • Curriculum update as per HEC and UHS guidelines • To teach and train the students through lectures and research work. • Supervision of M.Phil/PhD students in research projects. • To conceive and start new research projects related to Molecular 	06-06-2023 - to date

		pathology and Cytogenetics	
University of Health Sciences, Lahore	Director ORIC	<ul style="list-style-type: none"> Supporting the university's strategic research directions and policies Increasing and diversifying external research funding Improving recruitment and retention of top faculty Improving integration of research and education at all levels of the university Improving translation of research into the public benefit Strengthening university-industry relationships Promoting entrepreneurship, technology-transfer and commercialization activities that energize and support the local and national economy Promoting and enhancing cross-cutting and multi-disciplinary research initiatives 	22-05-2023 to 22-09-2023
Department of Physiology & Cell Biology, University of Health Sciences, Lahore	Tenured Associate Professor	<ul style="list-style-type: none"> To train the students through lectures and research work. Supervision of M.Phil. and Ph.D. students in research projects. To conceive and start new research projects related to Physiology and Molecular Cell Biology Management of different administrative duties at departmental levels 	21-12-2018 to 05-06-2023
Department of Physiology & Cell Biology, University of Health Sciences, Lahore	Assistant Professor (TTS)	<ul style="list-style-type: none"> To train the students through lectures and research work. Supervision of M.Phil and Ph.D. students in research projects. To conceive and start new research projects related to Physiology and Molecular Cell Biology 	1-02-2015 to 20-12-2018
Department of Immunology, University of Health Sciences, Lahore	Assistant Professor (TTS)	<ul style="list-style-type: none"> To train the students through lectures and research work. Supervision of M.Sc, M.Phil students in Research Projects. To conceive and start new research projects related to Molecular Biology/Virology 	16-04-2012 to 31-01-2015
Department of Immunology, University of Health Sciences, Lahore	Assistant Professor (IPFP)	<ul style="list-style-type: none"> To train the students through lectures and research work. Supervision of M.Sc, M.Phil students in research projects. 	15-04-2011 to 15-04-2012

		<ul style="list-style-type: none"> To conceive and start new research projects related to Molecular Biology/Virology 	
Shoukat Khanum Memorial Cancer Hospital & Research Center, Lahore	Research Associate	<ul style="list-style-type: none"> Germline mutational analysis in BRCA1/2 genes in Pakistani cancer patients Pathological progression in BRCA1/2 mutation carriers Study on survival and treatment statistics in mutation carriers. 	2010-2011

Honors/Awards

- Post-doctoral scholarship (2013-14) from UMG, Göttingen, Germany
- HEC Indigenous PhD Scholarship (2005-10), Pakistan
- Research Productivity Award (2011-12) from Pakistan Council for Science and Technology
- Research Productivity Award (2012-13) from Pakistan Council for Science and Technology
- Young Productive Scientist (awarded in 2017 for the years till 2015) in Biological sciences by Pakistan Council for Science and Technology

Memberships

- European Society of Clinical Microbiology and Infectious Diseases (ESCMID), Membership ID # 127567 (Young Scientist Member till 2017, and Full member from Dec 2017).
- Member, International society of Infectious diseases (ISID) since 2015.
- Global Outreach member, American Society of Microbiology (ASM) since 2016. Membership ID # 100193232.
- Member, World society of Virology (WSV) since 2017.
- Member, Federation of European Microbiological Societies (FEMS) since 2017.

Member Academic Journal Editorial Board/Reviewer

- Member editorial board: World Journal of Gastroenterology (2018-2020)
- Member editorial board: World Journal of Hepatology (2019-2021)
- Member editorial board: Artificial Intelligence in Gastroenterology 2021-23
- Member editorial board: Frontiers in Genetics
- Peer Reviewer:
 - Archives of Virology
 - Biomedica (UHS)
 - Cancers
 - Chinese Herbal Medicine
 - Current Protein and peptide science
 - Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy
 - Diseases
 - Frontiers in Endocrinology
 - Frontiers in genetics
 - Frontiers in marine sciences
 - Frontiers in medicine
 - Frontiers in Nutrition
 - Frontiers in Oncology
 - Gene
 - Gene Reports
 - Genes

Heliyon
Infection and Drug Resistance
International Journal of General medicine
International Journal of Laboratory Hematology
International Journal of Molecular Sciences
Journal of Clinical Medicine
Journal of Personalized Medicine
Medicina
Meta-Gene
Pharmaceuticals
PLOSOne
Risk management and Healthcare
The Journal of Infection in Developing Countries
World Journal of Hepatology
World Journal of Orthopedics

Member Administrative/ Academic Committee

- Sports committee UHS, Lahore (2012-2014, 2019).
- Technical and inspection Committee (Purchase cell), UHS, Lahore (2015-2019 & 2024 till to-date).
- Member Advance Studies and Research board UHS, Lahore (2015-2018 & 2025 till to-date)
- Member Synopsis Review Committee (PhD) UHS, Lahore (2018-2021)
- Member Intuitional review board (IRB), Sheikh Zayed hospital, Lahore (2018-2021).
- Secretary research review board (Basic-Sciences group) UHS, Lahore (2018-2022).
- Member appointment committee UHS, Lahore (2022-2023)
- Member Synopsis review committee (Nursing), UHS (2023-2024)
- Director ORIC (22-05-2023 to 22-09-2023)
- Member Research and Development center, UHS (2022 till to date)
- Member Demand Justification committee, UHS (2023 till to date)
- Member Departmental Tenure Track Review Committee (DTRC) UHS, Lahore (2021 till to date)
- Member Hostel committee (June, 2023 to May 2024)
- Member IRB
- Secretary, Undergraduate Committee
- Member, Undergraduate Committee
- Member Oversight committee Faham

Courses taught:

1. Cell Biology and Physiology
2. Molecular Biology
3. Basic Immunology
4. Virology
5. Recombinant DNA technology
6. Proteomics
7. Instrumentation and Molecular Techniques
8. Transcriptomics
9. Advanced Biomedical Techniques
10. Molecular pathology and Diagnostics
11. Cytogenetics

Research Grants:

No	Title	Amount	Funding agency	Status
1	Expression analysis of interleukin 28 (IL28) and interferon stimulating genes (ISGs) in Pakistani HCV patients with and without interferon therapy. (PI)	0.5 Million (Pak Rs.)	HEC (2011)	Completed
2	A study of genetic variations in cytokines and TLRs genes and their expression level in association with dengue pathogenesis (DF/DHF). (PI)	1.79 Million (Pak Rs.)	HEC (2014)	Completed
3	Use of PCR for the detection of malaria from dried blood spot samples. (Co-PI)	0.49 Million (Pak Rs.)	PHRC (2016)	Completed
4	Clinical and Molecular characterization of common cancers in Pakistan (Co-PI in this Mega Project)	43.7 Million (Pak Rs.)	HEC (2017)	Completed
5	Association of adipokines, FGF21 and their genetic variants with bone mineral density in post-menopausal women. (PI)	2.27 Million (Pak Rs.)	HEC (2019)	Completed
6	Frequency of Th17 cells, cytokine levels, and their genetic variants in Guillain-Barre syndrome (Co-PI)	5.83 Million (Pak Rs.)	HEC (2022)	In process

Students supervised/under supervision

MPhil students (Supervisor/Co-Supervisor)

- Humaira Naeemi (MPhil), Thesis entitled “Identification of genotype rs8099917 near the IL28B gene and prediction of response to therapy in HCV patients” (Degree awarded 2012).
- Dr Irum Aftab (MPhil), Thesis entitled “Detection of common FANCC gene mutations in fanconi anemia patients” (Degree awarded 2014).
- Dr Saadia Wasim (MPhil), Thesis entitled “Detection of BCR/ABL translocation analysis in ALL patients” (Degree awarded 2014).
- Dr Saima Irum (MPhil), Thesis entitled “Mutation analysis in FANCA gene in Fanconi Anemia patients” (Degree awarded 2015).
- Ms Rabia Aslam (MPhil), Thesis entitled “Expression and Polymorphism analysis of SOCS3 Gene in HCV Patients” (Degree awarded 2016).
- Dr Ujala Aymun (MPhil), Thesis submitted, “Mutations of FANCG gene (313G>T and 307+1G>T) in patients of Fanconi anemia”. (Degree awarded 2016)
- Ms Rakhshanda Talib (MPhil), thesis write-up in process “Association of interleukin-6 polymorphism (-634C/G) in the promotor region with diabetic nephropathy in type 2 diabetes mellitus. (Degree awarded 2016)
- Dr M Muneer (MPhil), “TEL/AML1 translocation detection in ALL patients”. (Degree awarded 2016)
- Ms Sumra Batool (MPhil), “DC-SIGN, -336A/G Genotyping of patients with Dengue Fever and Dengue Hemorrhagic Fever”. (Degree awarded 2017)
- Ms. Rabia Sarwar (MPhil), “Influence of genetic polymorphism of tumor necrosis factor alpha in chronic HCV patients”. (Degree awarded 2017)
- Mr. Syed Rizwan Ali Shah (MPhil), “Analysis of TNF alpha gene promoter polymorphism in patients with dengue fever” (Degree awarded 2018).
- Syeda Faiza (MPhil), “Circulating chemokine levels in colorectal cancer patients and healthy populations” (Degree awarded 2018).
- Muhammad Shoaib Akhtar (MPhil), “Molecular basis of cell cycle arrest by erufosine in breast and colorectal cancer cells” (Degree awarded 2018).
- Syeda Shafia Ali (MPhil), “Riproximin mediated effects on cell cycle relevant genes in breast and

- colorectal cancer cells” (Degree awarded 2018).
- Mr. Muhammad Umer (MPhil), “Changes in hepatic MitoNEET gene expression at different time points, during an acute phase reaction in hyperglycemic and normal rats” (Degree awarded 2019).
 - Dr. Noor ul Huda (MPhil), “Changes in sonic hedgehog signaling (Shh) with high doses of retinoic acid in the developing murine tongue tissue” (Degree awarded 2019).
 - Laraib Zara (MPhil), “Study the role of PTEN and Akt gene expression and its related microRNA in ovarian cancer” (Degree awarded 2019).
 - Uzair Ahmad (MPhil), “Role of micro-RNA in the pathogenesis of diabetic cardiomyopathy” (Degree awarded 2020).
 - Dr. Safi Ullah Khan (MPhil), “Salivary irisin level and its expression in patients with chronic periodontitis and healthy individuals” (Degree awarded 2020).
 - Iqra Shaukat (MPhil), “Cytotoxic effects of synthetic alkyl phospholipid (Erofusine) in combination with chemotherapeutic agents (5-Fluorouracil and Oxaliplatin) against colorectal cancer cells” (Degree awarded 2021).
 - Dr Fareena Ahmad (MPhil), “Association of CTRP9 and CTRP15 levels with HOMA-IR and HOMA-B in metabolic syndrome patients with and without cardiovascular diseases” (Degree awarded 2021).
 - Dr. M Azhar (MPhil), “Comparison of expression of Dickkopf-1 and sclerostin genes in normal and ankylosed temporomandibular joints of growing Wistar rats” (Degree awarded 2022).
 - Faiza malik (MLS), “Expressional Profiling of Plasma miRNAs (let-7b-5p, miR-122-5p, miR-146b-5p, miR-215-5p and miR-210-3p) in Breast Cancer Patients” (Degree awarded 2022).
 - Dr. Sana Akhlaq (MPhil), “Secreted Frizzled related protein 4, insulin resistance and waist to height ratio in healthy subjects with and without family history of type 2 diabetes mellitus” (Degree awarded 2022).
 - Ishrat Yasmeen (MPhil), “Dopamine Receptor D2 gene polymorphisms rs2005313, rs4274224 and rs4938019 in patients with Schizophrenia” (Degree awarded 2023).
 - Iqra Aizaz (MLS), “Genetic screening of LRRK2 gene/mutation hotspots in patients with Parkinson’s disease” (Degree awarded 2024).
 - Dr Shagufta Waqas /Nasir (MPhil), “Serum levels of SIRT-6 and its gene expression and effect on NF- κ B signaling pathway in obese and non-obese osteoarthritis patients” (Degree awarded 2024).
 - Dr. Iqra Zafar (MPhil), “Comparison of serum vitamin-d, osteocalcin and sclerostin levels in healthy pre-menopausal and post-menopausal women” (Degree awarded 2025).
 - Dr. Syeda Arooj Fatima (MPhil), Thesis submitted, “Correlation of iron regulatory hormones hepcidin, erythroferrone and serum transferrin receptors levels in children with iron deficiency anemia”.
 - Afifa Iqbal (MPhil), Thesis submitted, “Role of IL17 and IL22 cytokines and their genetic variants in Guillain-Barré syndrome”.
 - Maria Nasir (MLS), Thesis submitted, “Expressional profiling of plasma long non-coding RNAs in breast cancer patients of women of tertiary care hospital”.
 - Nageen Talib (MLS), Research in Progress, “Comparative expression of TP53, CASP3, MAPK8 and CDKN1A genes in breast cancer patients of women of tertiary care hospital”.
 - Walid Alam (MLS), Research in Progress, “Identification of blaCTX-M-1 and blaCTX-M-9 genes in ESBL producing gram negative Lactose fermenter bacilli isolated from Pediatric blood cultures”.
 - Khalid Mehmood (MLS), Research in Progress, “Association of IRF-6 gene polymorphisms (rs2013162 and rs2235371) in non-syndromic orofacial clefts patients”.

PhD Students (Supervisor/Co-Supervisor)

- Dr. Muhammad Sarfaraz Iqbal (PhD), “Polymorphism analysis of anti-viral sensor genes in chronic HCV infection” (Degree awarded 2018).
- Dr. Uzma Zargham (PhD), “Genetic variant and hormone levels in metabolic syndrome” (Degree awarded 2020).
- Dr. Zaima Ali (PhD), “Placental specific microRNAs related to genes expressed in angiogenesis and apoptosis in pre-eclamptic and normotensive women” (Degree awarded 2021).
- Dr. Sundus Tariq (PhD), “Association of adipokines, FGF21 and their genetic variants with bone mineral density in post-menopausal women” (Degree awarded 2021).
- Dr. Irum Fayyaz (PhD), “Identification of Biochemical and Genetic Markers in Rheumatoid arthritis using Molecular approach” (Degree awarded 2023).
- Dr. Hira Sohail (PhD), “Association of high sensitive troponin I levels and genetic variants of Apolipoprotein A and B gene with severity of coronary artery disease in Punjab, Pakistan” (Degree Awarded 2023).
- Dr. Rizwana Hussain (PhD), “Comparison of relative expression of PI3K/AKT/mTOR cascade and related miRNAs in ovarian cancer and healthy women” (Thesis defended 2023).
- Dr. Atika Masood (PhD), “Mutations in cancer susceptibility genes and expression of poly ADP-ribose protein in relation to chemotherapy in patients with surface epithelial ovarian carcinoma” (Thesis defended 2024).
- Dr. Rahat Sarfraz (PhD), “Analysis of Copy number variants and their protein expression in response to treatment in serous ovarian cancer patients” (Thesis defended 2024).
- Dr. Hafiz Muhammad Waseem (PhD), “Comparison of differential expression of miRNAs and their effect on lipids, anti-oxidants, anti-inflammatory biomarkers and pregnancy related hormone levels in females having normal pregnancy and pregnancy with gestational diabetes mellitus” (Thesis defended 2024).
- Dr. Huma Saeed Khan (PhD), “Pathophysiology of long non-coding RNA in patients of type II diabetes mellitus with and without diabetic kidney disease” (Thesis defended 2025).
- Ms. Shumaila Habib (PhD), thesis submitted, “Contribution of Human APOBEC3 genes and HIV-1 subtypes specific mutations to the overall mutation rate of HIV-1” (Thesis defended 2025).
- Bushra Bubarak (PhD), research in progress, “Role of Th17 cells, associated cytokines, and genetic variants in Guillain-Barré syndrome”.

Publications Dr. Saba Khaliq**1. Articles (Impact Factor: IF = 189.831)**

Research Articles (International Impact factor publications)	IF
1. Khaliq, S. , Jahan, S., Ijaz, B., Ahmad, W., Asad, S., Pervaiz, A., Samreen, B., Khan, M., and Hassan, S. Inhibition of Core gene of HCV 3a genotype using synthetic and vector derived siRNAs. <i>Virology</i> 2010; 13;7:318. https://virologyj.biomedcentral.com/articles/10.1186/1743-422X-7-318	2.819
2. Khaliq, S. , Jahan, S., Ijaz, B., Ahmad, W., Asad, S., and Hassan, S. Inhibition of hepatitis C virus genotype 3a by siRNAs targeting envelope genes. <i>Arch Virol</i> 2011;156(3):433-42. https://link.springer.com/article/10.1007%2Fs00705-010-0887-6	2.233
3. Jahan, S., Khaliq, S. , Ijaz, B., Ahmad, W., and Hassan, S. Role of HCV Core gene of genotype 1a and 3a and host gene Cox-2 in HCV-induced pathogenesis. <i>Virology</i> 2011;8(1):155. https://virologyj.biomedcentral.com/articles/10.1186/1743-422X-8-155	2.668

4. Ahmad, W., Ijaz, B., Fauzia, T. J, Gul, S., Kausar, H., Sarwar, M.T., Asad, S., Shahid, I., Samreen, A., Khaliq, S. , Jahan, S., Pervaiz, A., and Hassan, S. A comparison of four fibrosis indexes in chronic HCV: Development of new fibrosis-cirrhosis index (FCI). <i>BMC Gastroenterol</i> 2011; 11:44. https://bmcgastroenterol.biomedcentral.com/articles/10.1186/1471-230X-11-44	3.038
5. Khaliq, S. , Jahan, S., Perwaiz, A., Ashfaq, U.A., and Hassan, S. Down-regulation of IRES containing 5'UTR of HCV genotype 3a using siRNAs. <i>Virol J</i> 2011; 8:221. https://virologyj.biomedcentral.com/articles/10.1186/1743-422X-8-221	2.668
6. Ashfaq. U.A, Masaud, M. S., Khaliq, S. , Nawaz, Z., and Riazuddin, S. Inhibition of Hepatitis C virus 3a genotype entry through Glanthis Nivalis Agglutinin. <i>Virol J</i> 2011; 8:248. https://virologyj.biomedcentral.com/articles/10.1186/1743-422X-8-248	2.668
7. Jahan, S., Khaliq, S. , Samreen, B., Ijaz, B., Khan, M., Ahmad, W., Ashfaq. U.A, and Hassan, S. Effect of combined siRNA of HCV E2 gene and HCV receptors against HCV. <i>Virol J</i> 2011; 8:295. https://virologyj.biomedcentral.com/articles/10.1186/1743-422X-8-295	2.668
8. Rashid, M, U., Gull, S., Faisal, S., Khaliq, S. , Asghar, K., Siddiqui, N., Amin, A., and Hamann, U. Identification of the deleterious 2080insA <i>BRCA1</i> mutation in a male renal cell carcinoma patient from a consanguineous cancer family from Pakistan. <i>Famil can.</i> 2011; 10(4):709-12. https://link.springer.com/article/10.1007%2Fs10689-011-9467-5	1.651
9. Jahan, S., Khaliq, S. , Siddiqui, M.H., Ijaz, B., Ahmad, W., Ashfaq, U.A., and Hassan, S. Anti-apoptotic effect of HCV Core gene of Genotype 3a in Huh-7 cell line. <i>Virol J</i> 2011;8(1):522. https://virologyj.biomedcentral.com/articles/10.1186/1743-422X-8-522	2.668
10. Idrees, S., Ashfaq, U.A., and Khaliq, S. HCV Envelope protein 2 sequence comparison of Pakistani isolate and In-silico prediction of conserved epitopes for vaccine development <i>J Transl Med</i> 2013;11:105. https://translational-medicine.biomedcentral.com/articles/10.1186/1479-5876-11-105	4.853
11. Manzoor S., Akhtar, U., Naseem, S., Khalid, M., Mazhar, M., Pervaiz, F., Khaliq, S. Ionotropic Purinergic Receptors P2X4 and P2X7: Proviral or Antiviral? An Insight into P2X Receptor Signaling and HCV Infection. <i>Viral Immunol</i> . 2016 Sep;29(7):401-8. doi: 10.1089/vim.2016.0008. https://www.liebertpub.com/doi/abs/10.1089/vim.2016.0008?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed	1.555
12. Nasreen M., Lone, K. P., Khaliq, S. , Khaliq, S. Serum Vitamin D levels and Vitamin D receptor (VDR) gene polymorphism (Fok I and Apa I) in Type I diabetes. <i>J Pak Med Assoc.</i> 2016 Oct;66(10):1215-1220. http://jpma.org.pk/full_article_text.php?article_id=7922	0.609
13. Aslam, R., Raza, SM., Naeemi, H., Mubarak, B., Afzal, N., Khaliq, S. SOCS3 mRNA expression and polymorphisms as pre-treatment predictor of response to HCV genotype 3a IFN-based treatment. <i>Springerplus</i> . 2016 Oct 21;5(1):1826. https://springerplus.springeropen.com/articles/10.1186/s40064-016-3506-5	1.288
14. Aftab, I., Iram, S., Khaliq, S. , Israr, M., Ali, N., Jahan, S., Hussain, S., Khaliq, S., Mohsin, S. Analysis of FANCC gene mutations (IVS4+4A>T, DEL322G, R548X) in patients of fanconi anemia in Pakistan. <i>Turk J Med Sci</i> . 2017 Apr 18;47(2):391-398. doi: 10.3906/sag-1506-53. https://www.ncbi.nlm.nih.gov/pubmed/28425259	0.744

15. Aymun, U., Iram, S., Aftab, I., Khaliq, S. , Ali, N., Ahmed, N., Mohsin, S. Screening for mutations in two exons of FANCG gene in Pakistani population. Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub. 2017, 161(2):158-163 10.5507/bp.2017.030. http://biomed.papers.upol.cz/artkey/bio-201702-0006_screening_for_mutations_in_two_exons_of_fancg_gene_in_pakistani_population.php	1.224
16. Faheem, M., Khaliq, S. , Lone, K.P. Non-monotonic endocrine disrupting effect of bisphenol-A on vitellogenin expression in juvenile freshwater cyprinid, <i>Catla catla</i> . Pakistan J. Zool. , 49(4), 1531-1534, 2017. DOI: http://dx.doi.org/10.17582/journal.pjz/2017.49.4.sc9 . http://www.bioone.org/doi/abs/10.2108/zs170009	0.628
17. Mubarak, B., Afzal, N., Talib, R., Aslam, R., Javaid, K., Latife, W., Khaliq, S. Frequency of HLA DQB1*0201 and DQB1*0301 Alleles and Total Serum IgE in Patients with Bronchial Asthma: A Pilot Study from Pakistan. Iranian Journal of Allergy, Asthma and Immunology 2017. 16(4):313-320. http://ijaai.tums.ac.ir/index.php/ijaai/article/view/896	1.182
18. Shahzad, A., Khaliq, S. , Ammar, A., Mahmood, S. Metachromatic leukodystrophy (MLD): A Pakistani family with novel ARSA gene mutation. J Mol Neurosci. 2017 63(1), 84-90 doi: 10.1007/s12031-017-0959-0. [Epub ahead of print] https://link.springer.com/article/10.1007%2Fs12031-017-0959-0	2.637
19. Faheem, M., Khaliq, S. , Ahmad, H.U., Lone, K.P. Bisphenol-A (BPA) alters plasma thyroid hormones and sex steroids in female Pakistani major carp (<i>Catla catla</i> ; Cyprinidae). Pak Vet J , 2017. 37(3): 326-330. http://www.pvj.com.pk/pdf-files/37_3/326-330.pdf	1.247
20. Faheem, M., Khaliq, S. , Lone, K.P. Disruption of reproductive axis in fresh water fish, <i>Catla catla</i> , after bisphenol-A exposure. Zoological Science , 2017, Oct;34(5):438-444. doi: 10.2108/zs170009. http://www.bioone.org/doi/10.2108/zs170009?url_ver=Z39.88-2003&rft_id=ori%3Arid%3Aacrossref.org&rft_dat=cr_pub%3Dpubmed&	0.988
21. Iqbal, M. S., Ashfaq, U.A., Khaliq, S. , Ghani, M.U., Haque, A., Masoud, M.S., Awan, M.Q., Jahan, S. Toll like receptor 4 polymorphism as pretreatment predictor of response to HCV genotype 3a IFN-based treatment. Future Virology 27 Nov 2017. 12(12): 739-746. doi.org/10.2217/fvl-2017-0076. https://www.futuremedicine.com/doi/10.2217/fvl-2017-0076	0.96 3
22. Faheem, M., Jahan, N., Khaliq, S. , Lone, K.P. Validation of reference genes for expression analysis in a teleost fish (<i>Catla catla</i> Hamilton) exposed to an endocrine-disrupting chemical, Bisphenol-A. Rend. Fis. Acc. Lincei 2018, 29, 13–22. https://doi.org/10.1007/s12210-017-0653-8 https://link.springer.com/article/10.1007/s12210-017-0653-8	1.087
23. Hussain, R., Khaliq S. , Raza, S. M., Khaliq S., Lone, K.P. Association of TP53 codon 72 polymorphism in women suffering from endometriosis from Pakistan. Journal of the Pakistan Medical Association, JPMA 2018: 68 (2): 224-230. http://jpma.org.pk/full_article_text.php?article_id=8558	0.566
24. Iqbal, MS., Ashfaq, UA., Aslam, S., Khaliq, S. , Ghani, M,U., Batool., F. Analysis of Polymorphism rs1990760 of IFIH1 gene and Treatment Outcomes in HCV infection. Future Virology 1 Feb 2018. 13(2): 181-87 DOI: 10.2217/fvl-2017-0116. https://www.futuremedicine.com/doi/10.2217/fvl-2017-0116	0.73 0
25. Naeemi, H., Aslam, R., Raza, S.M., Shahzad, M.A., Naz, S., Manzoor, S., Khaliq, S. Distribution of IL28B and IL10 polymorphisms as genetic predictors of treatment response in Pakistani HCV genotype 3 patients. Archives of Virology , April 2018,163 (4); 997–1008. https://link.springer.com/article/10.1007%2Fs00705-018-3711-3	2.231

26. Yousaf, M., Junaid, K., Iqbal, MS., Aslam, I., Ahmad, S., Aqeel, M., Ashfaq, UA., Khaliq, S. , Ghani, U., Waqar, N. Analysis of Dengue virus burden and Serotypes pattern in Faisalabad, 2016 to 2017. Future Virology 2018 13:4, 245-251 https://doi.org/10.2217/fvl-2017-0155 https://www.futuremedicine.com/doi/10.2217/fvl-2017-0155	0.730
27. Faheem, M., Jahan, N., Khaliq, S. , Lone, KP. Modulation of brain Kisspeptin expression after exposure to bisphenol-A in a teleost fish (<i>Catla catla</i>). Fish Physiol Biochem . 2019 Feb;45(1):33-42. doi: 10.1007/s10695-018-0532-y. Epub 2018 Jul 3. https://link.springer.com/article/10.1007%2Fs10695-018-0532-y	1.729
28. Aslam, N., Batool, F., Iqbal, M.S., Ashfaq, U.A., Ayaz, S., Khaliq, S. , Jahan, S., Ghani, M.U., Usman, M. Analysis of toll-like receptors-9 (TLR9) gene polymorphism (rs5743836) in Pakistani patients with HCV. Pak. J. Pharm. Sci. , November 2018, 31:(6-Suppl), 2709-2714. http://www.pjps.pk/wp-content/uploads/pdfs/31/6/Supplementary/20-SUP-963.pdf	0.596
29. Zafar, U., Khaliq, S. , Usman, H.M., Lone, K.P. Serum profile of cytokines and their genetic variants in metabolic syndrome. Bioscience Reports Feb 01, 2019, 39 (2) BSR20181202; DOI: https://doi.org/10.1042/BSR20181202 http://www.biosciencerep.org/content/39/2/BSR20181202	2.535
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Authors: Ashfaq, U.A., **Khaliq, S.**, Jahan S.
- Book chapter entitled "Some important viral diseases of farmed fish, Section C: Viral Diseases" in Veterinary Pathobiology and Public Health, 2021. <https://doi.org/10.47278/book.vpph/2021.040>
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3. Sequence submission to NCBI

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4. Symposium presentations (Posters/Abstracts):

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2. **Khaliq, S.**, Naeemi, H., Shahzad, MA., Aslam R. Polymorphism in Interleukin genes: Predictive of non-response or relapse in HCV genotype 3a patients. (P1785). The 26th Conference of Asian Pacific Association for the Study of Liver, APASL Annual Meeting 2017 Shanghai, China on February 15-19, 2017.
3. **Khaliq, S.**, Aslam, R., Naeemi, H. Genetic variations in cytokine genes (IL10 and IL6) and Toll-like receptors (TLRs 3, 4, 7 and 8) in patients with DF and DHF. (P1369). 26th European congress of clinical microbiology and infectious diseases (ECCMID-2016) Amsterdam, Netherland on 9-12 April, 2016.
4. Aslam, R., Raza, SM., Naeemi, H., **Khaliq, S.** SOCS3 mRNA expression, polymorphisms and response to treatment in HCV genotype 3a infected patients. International symposium on advances in Molecular Biology of plants and health sciences. 29-31 December 2015.
5. Naeemi, H., Batool, S., Raza, SM., **Khaliq, S.** *DC-SIGN*, -336A/G association with Dengue Fever and Dengue Hemorrhagic Fever. International symposium on advances in Molecular Biology of plants and health sciences. 29-31 December 2015.
6. Ziegler, D.A., **Khaliq, S.**, Firasat, S., Pantakani, K., Binder, L. and Asif, A.R. Novel mutations in Pakistani population in the major Fanconi anemia gene "FANCA" (FV03). DGKL2015 (German united society for clinical chemistry and laboratory medicine) 14-17 October Congress center Leipzig, Germany.
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Research interests

Due to my present research experience, I have an interest in fields related to different aspects of Molecular Biology such as:

- To study mechanism of new drugs against viral diseases especially HCV and Dengue
- siRNA based therapeutic strategy against different viral diseases
- To study the effect of sequence variation disease progression both in viral and host genes i.e. HCV, Dengue, Diabetes, cancers etc.

- Cells signalling pathway involved in different disease conditions including Apoptosis, Cell proliferation, Oncogenesis, Angiogenesis etc.
- Gene expression analysis and Comparative genomics for identification of therapeutic targets and diagnostic markers
- Generation of stable cell line expressing complete and Partial HCV and HIV genome.
- Bimolecular interactions and Protein structure and function.
- Cancer Biology especially related to germline mutations in breast, ovarian and cervical cancer patients.
- Bioinformatics approaches to explore the field of viral infections and cancer biology.
- miRNA profiling in different cancers especially ovarian cancer
- Screening of genetic and biochemical parameters in metabolic diseases such as diabetes, hypertension, cardiac diseases

Areas Of Expertise:

Molecular/Recombinant DNA Techniques:

Polymerase chain reaction (PCR), Real Time PCR, Sequencing, Chromatography, Gel electrophoresis (SDS-PAGE & Agarose), Cloning Techniques, Transformation, Microarray technique, labeling of RNA with Cy3/Cy5 etc.

Biochemical:

RNA extraction, Genomic DNA extraction, ELISA, Protein purification, RFLP, Denaturing High Pressure Liquid Chromatography (DHPLC), Western blotting, Southern blotting etc.

Microbiological Techniques:

Disinfections and sterilization, Lab safety, Specimen collection and processing, Smear examination, Cultures and isolation of microbes, Biochemical examination, Cell culturing etc.

Cell Culture techniques:

Mammalian cell culturing (adherent and suspension), transfection of cells with plasmids, stable cell line, cells proliferation Assay.

siRNA/miRNAs/lncRNA:

Designing and Synthesis of siRNA, Transfection with siRNA, siRNA testing and Screening etc. Screening and identification of miRNAs and other non-coding RNAs as diagnostic marker.

Mutational analysis:

Nucleotide sequence variation in different HCV samples, Germ-line mutation analysis in cancer patients, nucleotide polymorphisms in host genes linked to different disease conditions etc.

Bioinformatics Skills

BLAST, Primer designing and In silico PCR, Protein and DNA sequence and phylogenetic analyses, Sequencing and Allignment by using ClustalW, Family Pedigree anaylsis using cyrillic software.

References:

1. Dr. Saqib Mahmood
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