

Mr. SHAHID HUSSAIN

Lecturer in Biomedical Engineering, Kohsar University Murree

Cell #: +92-3433232031

Email: Shahid.akhtar@kum.edu.pk or iiuibiotech@gmail.com



A. Research and Teaching Experience

<i>S. No.</i>	<i>Designation</i>	<i>Institute</i>	<i>Duration</i>
1.	Lecturer	Kohsar University Murree	March 2022- Present
2.	Research Associate	Center for regenerative medicine and stem cells research, The Aga Khan University, Karachi	Jan 2021-March 2022
3.	Research Assistant	State Key Laboratory, Macau University of Science and Technology, Macau	July 2019- May 2020
4.	Lecturer	Department of Bioinformatics and Biosciences, Capital University of Science and Technology Islamabad	Jun 2015 -June 2019
5.	Junior Lecturer	Department of Bioinformatics and Biosciences, Capital University of Science and Technology Islamabad	Sep.2013 - June 2015
6.	Research Associate	Human Genetics Lab, Institute of Biomedical and Genetic Engineering Islamabad. (KRL Hospital)	Jan 2011- June 2012

B. Academic Qualification

S.No.	Degree	Institute	Year
1.	MS Biotechnology (Distinction)	Department of Bioinformatics and Biotechnology, International Islamic University Islamabad	2011-2013
2.	BS (Hons) Biotechnology	Department of Biotechnology, University of Malakand	2006-2010

C. List of Journal Publications

1. **Hussain, S.**, Fatima, A., Fan, X. X., & Malik, S. I. (2021). The Biological importance of cells secreted Exosomes. *Pakistan Journal of Pharmaceutical Sciences*, 34(6).
2. **Hussain, S.**, Bokhari, S. E. Z., Fan, X. X., & Iqbal, S. (2021). The role of exosomes derived miRNA in cancer 3. *Journal of the Pakistan Medical Association*, 1-16.
3. **Hussain, S.**, Xie, Y., Li, D. et al. Current strategies against COVID-19. *Chin Med* 15, 70 (2020).
4. **Hussain, S** and Khan, M. A. (2018). Fast spreading infection of hepatitis C in Northern Area of Pakistan. *International Journal of Infectious Diseases*, 73, 274.
5. **Hussain S**, Bano R, Khan MT and Khan MH (2015). Association of CYP17 -34T/C polymorphism with pancreatic cancer. *Asian J Cancer Prev*. 2016, 17 Spec No.: 71-5
6. **Hussain S**, Khattak JZK, Ismail M, Mansoor Q, Khan MH. (2018). Molecular characterization of deafness in Autosomal recessive pedigrees of Khyber Pakhtunkhwa Pakistan. *PJPS*.vol 31, issue 1, p51-56
7. **Hussain S**, Bakhtiar SFK and Khan MH, (2014). A Bayesian Meta-Analysis and Systematic Review on Global and Local Prevalence of Hepatitis B. *IJSRM*. Volume 3 Issue 12.
8. **Hussain S** (2014). Hepatitis B “A Global Burden”. *International Journal of Novel Research in Life Sciences*. Vol. 1, Issue 1, pp: (31-37).
9. **Hussain S** (2014). A common genetic disorder “Deafness”. *Int J. of Novel Res in Life Sci*, Vol. 1, Issue 1, pp:15-30,
10. **Hussain S**, Khan MH, Khan MT, Haseeb M, Zeb S. (2014). Association of GJB2 Gene mutation with non-syndromic autosomal recessive deafness in different population of the world. *International Journal of Basic and Applied Sciences* Vol 3, No 4, 521-526.
11. YJ Xie, WN Gao, QB Wu, XJ Yao, ZB Jiang, YW Wang, WJ Wang, W Li, **Hussain S** et al., (2020). Chelidonine Selectively Inhibits the Growth of Gefitinib-resistant Non-small Cell Lung Cancer Cells through the EGFR-AMPK Pathway. *Pharmacological Research*. 104934
12. Munir A, **Hussain S**, Dilshad E. (2018). Silver nanoparticles conjugated with Neurotrophin 3 upregulate myelin gene transcription pathway. *Journal of Theoretical Biology*; 459: 111–118.
13. Ali, F., **Hussain, S.**, & Zhu, Y. Z. (2021). A therapeutic journey of potential drugs against COVID-19. *Mini Reviews in Medicinal Chemistry*.
14. Haseeb M and **Hussain S** (2015). Pharmacophore development for anti-lung cancer drugs. *Asian J Cancer Prev*. Vol 16, 8307- 8311
15. Khan MH, **Hussain S**, Bano R, Jamshed-ul-Hassan H and Aadil ur Rehman M. (2015). Association of most prevalent risk factors with lung cancer and their impact on survival length. *Asian J Cancer Prev*. 2016, 17 Spec No.: 65-70.
16. Zubair. A, **Hussain S.**, Ahmad S. F., Khan A. A., Jamil T., Qadir S. M., Lodhi A.F. and Khattak J. Z. K. (2012). Prevalence of Hepatitis B detected through RT PCR in Khyber Pakhtunkhwa. *Afri.J.Micro.Res:Vol*. 6(15), pp. 3631-3634.
17. Khan MT, Sikandar S, Khan MB, **Hussain S** (2014). Antimicrobial Activity of CitrusLemon against Food Borne Pathogens. *Pak J of Clin and Biomed Res*. Issue 1; vol.2: p33-37.

18. Fatima A, Khan MT, Orakzai MB, **Hussain S** (2014). Study of Antimicrobial Activity of Garlic Extracts against Foodborne Pathogens and its Comparison with Garlic Oil and Different Antibiotics. Pak J of Clin and Biomed Res. Issue 1; vol.2: p27-32. 2)
19. Usman F, Ahmad B, **Hussain S** (2014). Institutional Based Prevalence of Ischemic Heart Disease in Khyber Pakhtunkhwa Pakistan. Journal of Rashid Latif Medical College, vol 3 no.1. 31-35.
20. Zeb S, Rehman S, Khan MS, Fazal S, **Hussain S**. Parkinson's Disease Mechanisms, and its Treatment. Journal of Rashid Latif Medical College, VOL .3 NO.1. 49-53.
21. Tariq AU, Khan MH, **Hussain S**, Bano R, Navid A (2015). In Silico Characterization of Genetic Alterations Associated with Mal De Meleda. International Journal of Sciences: Basic and Applied Research, Volume 19, No 2, pp 65-76.
22. Bilal M, Khan MT, **Hussain S**, Zeb MT and Hussain M (2015). Antimicrobial Activity of Ethanol and Ethyl Acetate Extracts of Roots Adiantum Capillus Veneris. Journal of Rashid Latif Medical College. Vol 4 Issue 1. p39- 44.
23. Ahmad SF, Anwar Z, **Hussain S**, Jehangir M, Jehangir I, Jamal A, Khattak JZ, Khan A (2016). A detailed report on a specific area-based prevalence and diagnostic methods of hepatitis C in Khyber Pakhtunkhwa, Pakistan. Molecular and Biochemical Diagnosis (MBD) Vol 2, No 1, 51-64
24. Azam S, Munir A, Khan MS, Fazal S, Mehmood A, Ali S and **Hussain S** (2017) In-Silico Identification of Novel Resistant Genes for Fungal Pathogen Fusarium oxysporum f. sp. cubense Race 4: Causative Agent of Banana Vascular Wilt Disease. J Plant Biochem Physiol 5: 175. doi:10.4173/2329-9029.100017

D. Conferences/Meetings publications

1. **Hussain S**, Malik SI, Jun C, Fan X. The future of exosomes in diagnostic biomarkers and a tool for drug delivery system in cancer. The 6th Annual Meeting of the Specialty Committee on Immunology of Traditional Chinese Medicine.15-17 November 2019·Tianjin·China.
2. **Hussain S**, Mansoor Q, Khattak J.Z.K and Ismail M 2012. Molecular characterization of congenital deafness in Autosomal recessive pedigrees of Khyber Pakhtunkhwa Pakistan. Pakistan Journal of Physiology; 8 (suppl) O-Gene-09.
3. Fan X, Elaine EL, Xie Y, **Hussain S**, Liu L. Oncogenic protein kinase C signaling promotes tumor immune escaping by enhancing PD-L1. The 6th Annual Meeting of the Specialty Committee on Immunology of Traditional Chinese Medicine.15-17 November 2019·Tianjin·China.
4. Jun C, **Hussain S**, Elaine EL, Fan X. Sanguinarine ameliorates rheumatoid arthritis in rats through enhancing ROS induced cell apoptosis. The 6th Annual Meeting of the Specialty Committee on Immunology of Traditional Chinese Medicine.15-17 November 2019·Tianjin·China.
5. Khan MT, Bilal M, **Hussain S** and Rashid H (2014). Evaluation of PD50 for Foot & Mouth Disease Serotype “A” Oil Based Vaccine in Guinea Pigs and Bioinformatics Analysis of VP1 Protein of FMDV. 2nd conference on emerging trends in Bioinformatics: M.A.J.U Islamabad. P-15.
6. Aziz SE, Fazal S, **Hussain S** and Rashid H (2014). Detection of relationship between breast cancer and ovarian cancer through network analysis. 2nd conference on emerging trends in Bioinformatics: M.A.J.U Islamabad. P-19.
7. Khaliq NA, **Hussain S** and Rashid H (2014). Association of RS2243250 C-589 T single nucleotide polymorphism with Asthama. 2nd conference on emerging trends in Bioinformatics: M.A.J.U Islamabad. P-30.

E. Honors & Achievements

1. Distinction in Master degree
2. MS Fellowship in MS Degree. Pakistan science foundation 2012
3. Honor of best research student award by institute of Biomedical and Genetic engineering Islamabad
4. Senior joint secretary of B.E.S.T (Biotechnological Eclectic & Sagacious Tracers) Society in University of Malakand
5. Vice President of B.D.S (Blood Donating Society) University of Malakand
6. Member of Literary Society University of Malakand

F. Research Interest

1. Cancer Biology
2. Genetics
3. Molecular Biology
4. Exosomes Biology
5. Stem Cells Research

G. Laboratory Skills

- Isolation of Cancer/Stem cells secreted exosomes.
- Downstream applications of Exosomes
- Use of Exosomes as Biomarkers
- Tissue culture
- DNA/RNA/Protein Extraction from Biological samples
- Real Time Quantitative PCR
- Western Blotting
- Ultracentrifugation
- Animal Models Handling and Treatment for Experiments
- Gel Electrophoresis Techniques
- Handling/Management of Lab Equipment and Chemicals catalogues
- Basics in Bio printer

H. Ongoing and conducted Research Projects

- Role of Cancer stem cells derived exosomes in biological mechanisms.
- Effects of exosomes on T-Cell's proliferation in tumor microenvironment
- Genetic diagnosis of families with congenital deafness.
- Molecular characterization of hypertriglyceridemia.
- Molecular study of Hepatitis B Virus.

I. Scientific Events participated/ organized.

1. **Organizer** of 5th conference on emerging trends in Bioinformatics and Computational Biology, Capital University of science and technology Islamabad (2017).
2. **Organizer** of 7th One Day Workshop on the Significance of Bioinformatics in Life Sciences May 07, 2016.
3. **Session chair** at the 8th APOCP Conference on cancer held at Tehran Iran 1-3 November 2015.
4. **Oral Presenter** at the 8th APOCP Conference on cancer held at Tehran Iran 1-3 November 2015.

5. **Invited Speaker** at the 8th APOCP Conference on cancer held at Tehran Iran 1 November 2015.
6. **Organizer** of 5th one day workshop on Bioinformatics, Mohammad Ali Jinnah University Islamabad (May, 2014). □
7. **Organizer** of 2nd conference on emerging trends in Bioinformatics and Computational Biology, Mohammad Ali Jinnah University Islamabad (7 June, 2014).
8. **Organizer** One-day international workshop on proteomics, Mohammad Ali Jinnah University Islamabad (11&12 June, 2014).
9. **Organizer** of First National Workshop/Conference on Computational Tools (8-12 April 2013) at national center for physics (NCP) Islamabad. □
10. **Organizer** First international symposium on recent advance in biotechnology (University of Malakand) 3 Days national workshop on modern Biotechnology (University of Malakand)
11. **Organizer** 3rd One-day workshop on Bioinformatics. (Mohammad Ali Jinnah University Islamabad.
12. **Oral presentation** at 13th Biennial International Conference 7-9 September 2012, Pakistan physiological society.
13. Participant at Pakistan Cardiac Society (PCS) Congress 2012 at Marriott hotel Islamabad.

J. References

1. **Dr. Sahar Fazal**, Associate Professor/ HoD, Department of Bioinformatics and Biosciences, C.U.S.T Islamabad Pakistan. Email: sahar@cust.edu.pk
2. **Dr. Shaukat Iqbal Malik**, Professor, Department of Bioinformatics and Biosciences, C.U.S.T Islamabad Pakistan. Email: drshaukat@cust.edu.pk
3. **Dr Xing-Xing Fan**, Assistant professor, State Key Laboratory, Macau University of Science and Technology, Macau, xxfan@must.edu.mo.
4. **Dr. Muhammad Ismail**, Principle Scientific Officer, Institute of Biomedical and Genetic Engineering, 24 Mauve Area, Sector G-9/1, Islamabad, Pakistan, Email: m.ismail02@gmail.com