# **DR. MUHAMMAD ADNAN SHEREEN**

Ph.D. Microbiology, HEC Approved Ph.D. Supervisor
Head of Department of Microbiology (Lecutrer),
Kohsar University Murree
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#### **Google Scholar:**

https://scholar.google.com/citations?hl=en&view\_op=list\_works&gmla=AJ1KiT2JMZIem6XWaPeCX 5\_R14kdTeK1YtYwqEJIj8AW2MaYBFsEhgZIhg67Lr7We3pNME3wPMIZwaK2DZMkoQ&user=fjxvwjUA AAAJ\_

Mailing Address: House #6, Street #1, Amjad Colony Dalazak Road, Peshawar, Pakistan, 25000

#### Objectives

To pursue post-doctorate studies as a Microbiologist and researcher. To explore the respective fields of Microbiology, Virology, Cell biology, innate Immunity, and the new technologies and emerging trends in the field of Microbiology for the sake of learning and growth, under the supervision of world-renowned professors and researchers as well as in their respective labs, research projects, and institutes.

#### Research Interest:

- Microbiology
- Virology
- Cell & Tissue Culture Technology
- Immunology
- Molecular Biology
- Primary Cells Isolation
- Innate Immunity
- Host-Pathogen Interaction
- Animal Modelling
- Bioinformatic Analysis

#### Projects involved/completed:

 "Zika virus dysregulates the expression of astrocytic genes involved in neurodevelopment." **Responsibilities:** Cell Culturing (Primary cells isolation from Mouse), Animal Modeling (Breeding, treating. and infection models construction in mouse), Bioinformatics Analysis (Sequencing)



 Other areas of projects involved: Virology, immunology, RNA Sequencing, Cell and Tissue Culture Technology, Retroviruses, Innate Immunity, Animal modeling, Host-Pathogen Interaction, Exosome trafficking, and Enteroviruses (EV71 virus) Replication studies.

#### **Running project:**

- 1. TLRs influence the alteration of brain astrocytic and Microglial genes upon Zika virus infection in neurodevelopment disorders (Wuhan University Project, in progress)
- 2. Construction of Infection models in mice for Synthetic compounds and Nanoparticle studies.
- 3. Use of Bacteriophage-encapsulated starch nanoparticles (BESN) against foodborne pathogens for the shelf-life extension of meat.

# **Education and Training**

▶ **Doctor of Philosophy in Microbiology (Virology) (Ph.D.)** (Sept-2017  $\rightarrow$  Jun-2021)

State Key Laboratory of Virology, Department of Microbiology, College of Life Sciences, Wuhan University, China

<u>Dissertation</u>: "Zika virus dysregulates the expression of astrocytic genes involved in neurodevelopment" <u>Final year projects</u>:

- 1. "Zika virus dysregulates the expression of astrocytic genes involved in neurodevelopment."
- 2. "The TLR3/IRF1/Type III IFN Axis Facilitates Antiviral Responses against Enterovirus Infections in the Intestine"

Supervisor: Prof. Dr. Jianguo Wu

State Key Laboratory of Virology. College of Life Sciences, Wuhan University, China. Guangdong Key Laboratory of Virology, Department of Medical Microbiology, Jinan University, China

➤ Master of Philosophy in Microbiology (M.Phil.) (Sept-2013 → Jun-2015)

Institute of Basic Medical Sciences, Khyber Medical University, Peshawar, Pakistan

This course provided theoretical and practical knowledge of Pathogens and host interactions, Virology, Different clinical diseases, Immunology, Medical Parasitology, and Molecular Biology.

<u>Dissertation:</u> Synthesis and Characterization of Miltefosine Loaded Thiolated Nanoparticles for Leishmaniasis Therapy

Supervisor: Prof. Dr. Momin Khan

Institute of Basic Medical Sciences, Khyber Medical University, Peshawar, Pakistan

#### > <u>BS (Hons) Microbiology</u> (2009 $\rightarrow$ 2013)

The University of Peshawar, Pakistan

This course provided theoretical and practical knowledge of Medical Microbiology, Immunology, Virology, Molecular biology, Environmental Microbiology, Parasitology, Cell Biology and Systemic Bacteriology

➤ <u>Higher Secondary School Certificate (Pre-Medical)</u> (2005 → 2007) Peshawar Model Degree College, Peshawar, Pakistan

This course provided basic theoretical knowledge of Biology, Applied sciences, and Chemistry.

# Academic Achievements (Awards)

- 1. Ranked among the top 2% most influential scientists in the world. Source: Stanford University (2023)
- 2. Ranked among the top 2% most influential scientists in the world. Source: Stanford University (2022)
- 3. Won **Chinese Government Scholarship** under CSC NO. 2016GXYC42, for Ph.D. studies (Fully Funded Scholarship) from 2016-2021.
- 4. The First Prize Winner in Academic Achievement "Excellent International Student Scholarship for the Year 2020, Wuhan University" (Reward and certificate)
- 5. Won **"Virology Youth Innovation Award"** for the highest number of publications during Ph.D. 2021 (Reward and certificate)
- 6. Stood among one of the **"Wuhan University 8 Outstanding Individuals to Fight against Coronavirus"**. (Certificate)
- 7. The First Prize Winner in Academic Achievement **"Excellent International Student Scholarship for the Year 2018"**, Wuhan University. (Reward and certificate)
- 8. The CSCB Training Course on Mouse Genetics and Phenotyping (September 17-21, 2018). This Training Course was organized and hosted by, the Model Animal Research Center, Nanjing University, China, and the Chinese Society for Cell Biology (Reward and certificate)
- 9. Received "Acceptance/Invitation Letter for Ph.D. at Huazhong University of Science and Technology in the Department of Biomedical Sciences"
- 10. Received "Acceptance/Invitation Letter for Ph.D. at Wuhan University in the Department of Microbiology"
- 11. Stood 2<sup>nd</sup> position holder in M.Phil. batch. (2013-2015)

# <u>Research Publications</u> (Total Impact Factors: 300+ / 7000+ citations)

1. **Shereen M.A**, Bashir N, Su R, Liu F, Wu KL, Luo Z\*, Wu JG\*, 2021. Zika virus dysregulates the expression of astrocytic genes involved in neurodevelopment. PLOS Neglected Tropical Diseases 15(4): e0009362.

(IF: 4.78)

- Luo Z, Liang Y, Tian M, Ruan Z, Su R, Shereen M.A, Yin J, Wu K, Guo J, Zhang Q, Li Y, Wu J. 2023 Inhibition of PIKFYVE kinase interferes ESCRT pathway to suppress RNA virus replication. J Med Virol. 2023 Feb;95(2): e28527. doi: 10.1002/jmv.28527. PMID: 36695658. (IF: 20.91)
- Shafiq, M., Zafar, S., Ahmad, A., Kazmi, A., Fatima, A., Mujahid, T.A., Qazi, R., Akhter, N., Shahzad, A., Rehman, S.U. and Shereen, M.A., 2023. Second-Line Antiretroviral Treatment Outcome in HIV-Infected Patients Coinfected with Tuberculosis in Pakistan. *BioMed Research International*, 2023. (IF: 3.24)
- Shereen M.A, Bashir N, Khan M.A, Kazmi A, Khan S, Zhen L, Wu J. Covid-19 Management: Traditional Chinese Medicine Vs. Western Medicinal Antiviral Drugs, A Review and Meta-Analysis. Fresenius Environmental Bulletin, 30(5), Pp.5537-5549. 2021. (IF: 0.61)

- Tian M.F, Liu W, Li X, Zhao P.Y, Shereen M.A, Zhu C, Huang S, Liu S, Yu X, Yue M, Pan P, Wang W, Li Y, Chen X, Wu K, Luo Z, Zhang Q, Wu J. HIF-1α promotes SARS-COV-2 infection and aggravates inflammatory responses to COVID-19. Sig Transduct Target Ther 6, 308 (2021). https://doi.org/10.1038/s41392-021-00726-w (IF: 38. 10)
- Yang, Y., Liu, W., Hu, D., Su, R., Ji, M., Huang, Y., Shereen, M.A., Xu, X., Luo, Z., Zhang, Q. and Liu, F., 2020. HIV-1 Nef Interacts with LMP7 To Attenuate Immunoproteasome Formation and Major Histocompatibility Complex Class I Antigen Presentation. Mbio, 11(5). (IF: 7.78)
- Shereen, M.A., Khan, S., Kazmi, A., Bashir, N. and Siddique, R., 2020. COVID-19 infection: Emergence, transmission, and characteristics of human coronaviruses. Journal of advanced research, 24, pp.91-98. (IF: 12.82)
- Luo Z, Zhu C, Ruan Z, Cui X, Shereen MA, Pan P, Huang J, Wang F, Su H, Xia Y, Wu J. Longitudinal Characterization of Cytokine Overproduction: A Case Report in Critically III COVID-19 Patients with Hyperinflammation in Bronchoalveolar Lavage. Frontiers in Medicine. 2021;8. (IF: 5.09)
- Pan P, Li G, Shen M, Yu Z, Ge W, Lao Z, Fan Y, Chen K, Ding Z, Wang W, Wan P, Shereen MA, Luo Z, Chen X, Zhang Q, Lin L, Wu J. DENV NS1 and MMP-9 cooperate to induce vascular leakage by altering endothelial cell adhesion and tight junction. PLoS Pathog. 2021 Jul 26;17(7): e1008603 (IF: 7.46)
- 10. Hu D, Wang Y, Li A, Li Q, Wu C, **Shereen MA**, Huang S, Wu K, Zhu Y, Wang W, Wu J. LAMR1 restricts Zika virus infection by attenuating the envelope protein ubiquitination. Virulence. 2021 Dec;12(1):1795-1807.

(IF: 5.42)

11. Khokhar M, **Shereen MA**, Khan M, Khan RU, Sohail A, Khan IU, Khan IU, Khattak S. In vitro efficacy of polymer coated miltefosine drug against leishmania tropica. Journal of Parasitic Diseases. 2021 Sep 23:1-1.

(IF: 1.4)

- Huang, S.; Wan, P.; Huang, S.; Xiang, Q.; Yang, G.; Shereen, M.A.; Pan, P.; Liu, W.; Wu, K.; Wu, J. Anapc10 Orchestrates the NLRP3 Inflammasome Activation during Cell Cycle Control. FEBS Letter. 2021 Oct;595(19):2463-2478. (IF: 3.86)
- Ullah, H., Sajid, M., Kun, Y., Feng, J., He, M., Shereen, M.A., Li, Q., Xu, T., Hao, R., Deyin, G. and Chen, Y., 2021. Antiviral activity of Interferon alpha-inducible protein 27 against Hepatitis B virus gene expression and replication. Frontiers in Microbiology, *12*, p.552. (IF: 6.06)
- Sajid, M., Ullah, H., Yan, K., He, M., Feng, J., Shereen, M.A., Hao, R., Li, Q., Guo, D., Chen, Y. and Zhou, L., 2021. The Functional and Antiviral Activity of Interferon Alpha-Inducible IFI6 Against Hepatitis B Virus Replication and Gene Expression. Frontiers in Immunology, *12*, p.1028. (IF: 8.78)
- Khan S, Siddique R, Huanfei D, Shereen MA, Nabi G, Bai Q, Manan S, Xue M, Ullah MW, Bowen H. Perspective applications and associated challenges of using nanocellulose in treating bone-related diseases. Frontiers in Bioengineering and Biotechnology. 2021 May 7; 9:350.
   (IF: 6.06)
- Su, R., Shereen, M.A., Zeng, X., Liang, Y., Li, W., Ruan, Z., Li, Y., Liu, W., Liu, Y., Wu, K. and Luo, Z., 2020. The TLR3/IRF1/Type III IFN Axis Facilitates Antiviral Responses against Enterovirus Infections in the Intestine. Mbio, 11(6).

(IF: 7.78)

- Tian, M., Liu, W., Zhang, Q., Huang, Y., Li, W., Wang, W., Zhao, P., Huang, S., Song, Y., Shereen, M.A. and Qin, M., 2020. MYSM1 Represses Innate Immunity and Autoimmunity through Suppressing the cGAS-STING Pathway. Cell Reports, 33(3), p.108297.
   (IF: 9.99)
- Duan, P., Khan, S., Ali, N., Shereen, M.A., Siddique, R., Ali, B., Iqbal, H.M., Nabi, G., Sajjad, W. and Bilal, M., 2020. Biotransformation fate and sustainable mitigation of a potentially toxic element of mercury from environmental matrices. Arabian Journal of Chemistry, 13, pp.6949-6965.
   (IF: 6.21)
- Khan, S., Siddique, R., Shereen, M.A., Ali, A., Liu, J., Bai, Q., Bashir, N. and Xue, M., 2020. Emergence of a novel coronavirus, severe acute respiratory syndrome coronavirus 2: biology and therapeutic options. Journal of clinical microbiology, 58(5). (IF: 11.67)
- Liu, R., Liu, X., Yuan, L., Han, H., Shereen, M.A., Zhen, J., Niu, Z., Li, D., Liu, F., Wu, K. and Luo, Z., 2020. Analysis of adjunctive serological detection to nucleic acid test for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection diagnosis. International immunopharmacology, 86, p.106746. (IF: 5.71)
- Zhu, C., Liu, W., Su, H., Li, S., Shereen, M. A., Lv, Z., Niu, Z., Li, D., Liu, F., Luo, Z., & Xia, Y. (2020). Breastfeeding Risk from Detectable Severe Acute Respiratory Syndrome Coronavirus 2 in Breastmilk. The Journal of infection, *81*(3), 452–482. (IF: 38.63)
- Khan, S., Siddique, R., Li, H., Ali, A., Shereen, M. A., Bashir, N., & Xue, M. (2020). Impact of coronavirus outbreak on psychological health. Journal of Global Health, 10(1). (IF: 7.66)
- Khan, S., Siddique, R., Ali, A., Bai, Q., Li, Z., Li, H., Shereen, M.A., Xue, M. and Nabi, G., 2020. The spread of novel coronavirus has created an alarming situation worldwide. Journal of infection and public health, 13(4), p.469. (IF: 7.53)
- Wang, W., Hu, D., Feng, Y., Wu, C., Li, A., Wang, Y., Cheng, K., Tian, M., Xiao, F., Zhang, Q. and Shereen, M.A., 2020. STING promotes NLRP3 localization in ER and facilitates NLRP3 deubiquitination to activate the inflammasome upon HSV-1 infection. PLoS pathogens, 16(3), p.e1008335. (IF: 7.46)
- Khan, S., Nabi, G., Han, G., Siddique, R., Lian, S., Shi, H., Bashir, N., Ali, A. and Shereen, M.A., 2020. Novel coronavirus: how things are in Wuhan. Clinical Microbiology and Infection, 26(4), p.399. (IF: 13.31)
- Siddique, R., Bai, Q., Shereen, M.A., Nabi, G., Han, G., Rashid, F., Ahmed, S., Benzhanova, A., Xue, M. and Khan, S., 2020. Evidence and speculations: vaccines and therapeutic options for COVID-19 pandemic. Human Vaccines & Immunotherapeutics, pp.1-9. (IF: 4.52)
- Luo Z, Su R, Wang W, Liang Y, Zeng X, Shereen MA, et al. (2019) EV71 infection induces neurodegeneration via activating TLR7 signalling and IL-6 production. PLoS Pathog 15(11): e1008142. (IF: 7.46)
- Luyao S, Wenbiao W, Aixin i, Pinan, Weiyong L, Shereen MA, et al. (2019). SUMO1 SUMOylates and SENP3 DeSUMOylates NLRP3 to Orchestrate the Inflammasome Activation. FASEB journal, SSRN Electronic Journal, DOI: 10.2139/ssrn.3275284.
   (IF: 5.83)
- 29. Pan P, Zhang Q, Liu W, Wang W, Yu Z, Lao Z, Zhang W, Shen M, Wan P, Xiao F, Shereen MA, Zhang W, Tan Q, Liu Y, Liu X, Wu K, Liu Y, Li Gand Wu J (2019) Dengue Virus Infection Activates Interleukin-1βto Induce Tissue Injury and Vascular Leakage. Front. Microbiol. 10:2637

#### (IF: 6.06)

- Shereen, M. I., Shah, M., Siraj, S., Ali, M., Kazmi, A., & Shereen, M. A. (2020). Association of Vitamin D and its Receptor (VDR) Gene Single Nucleotide Polymorphism (Apal and Taql) with Risk of Psoriasis. Annals of Jinnah Sindh Medical University, 6(2), 37-43. (HEC recognized "Y"; ISSN: 2523-1316)
- Asnad, Afridi M.T.I, Tahir M, Shereen M.A. 2014. Placebo-Controlled Trail of Pharmaceutical Optimized Lisinopril 10mg (F-5) in Patients with Essential Hypertension for Efficacy and biochemical Evaluation. Medical Forum, vol. 25(12): 11-14.

(HEC recognized "Y"; Switzerland, ISSN: 1029-385X)

- Afridi M.T.I, Chaudary I.A, Shereen M.I, Asnad, Shereen M.A. 2014. Outcome of Internal Fixation of Fractures in a Tertiary Care Hospital Peshawar. Medical Forum, vol. 25(12): 172-176. (HEC recognized "Y"; Switzerland, ISSN: 1029-385X)
- 33. **Shereen, M.A.,** Ullah, H., Khan, S., Bashir, N., Kazmi, A., Saif, K. and Qudus, M.S., 2020. COVID-19 around the world and the Chinese strategy to cope with SARS-CoV-2. Biomedical Research and Therapy, 7(7), pp.3890-3897.
- 34. **Shereen, M.A**. and Kazmi, A., 2020. SARS-CoV-2 pandemic causes and current situation, historical lessons, and strategical therapeutic interventions. Biomedical Research and Therapy, 7(5), pp.3807-3812.
- 35. Bashir, N., **Shereen, M. A.**, Kazmi, A., Sajid, M., & Ullah, H. (2020). A retrospective analysis of pyogenic liver abscess and antibiotic resistivity of common pathogens in Peshawar. Biomedical Research and Therapy, 7(12), 4190-4196.

# Publications Accepted/in the pipeline with KUM.

- Shafiq, M., Zafar, S., Ahmad, A., Kazmi, A., Fatima, A., Mujahid, T.A., Qazi, R., Akhter, N., Shahzad, A., Rehman, S.U. and Shereen, M.A., 2023. Second-Line Antiretroviral Treatment Outcome in HIV-Infected Patients Coinfected with Tuberculosis in Pakistan. *BioMed Research International*, 2023. (IF: 3.24)
- Biodegradation of Polystyrene (PS) by newly isolated fungus Aspergillus terreus strain NA2: An insight into the biotechnological potential of the strain from soil (Accepted in Polymers (IF: 4.91))
- 3. S. Imtiaz, J. Zakka, M. Ilyas, A. Shereen. 2023. Stress Tolerance in Wheat: Molecular Mechanisms and Breeding Strategies In Chen et al. (eds) Plant Stress Tolerance: Molecular Mechanisms and Breeding Strategies (Accepted)
- 4. A book titled: "Basic and Advanced Techniques in Biological Sciences" is ready to be submitted.
- 5. Biodegradation of Polystyrene (PS) by newly isolated fungus Phanerochaete chrysosporium strain NA3: An insight into the biotechnological potential of the strain from soil **(Under review)**
- 6. Plant Extract Preparation and Green Synthesis of Silver Nanoparticles using Swertia chirata: Characterization and Antimicrobial Activity against Selected Human Pathogens (Under Rivisions)
- 7. Isolation and Antibiotic Resistance Profiling of Shigella-Species from Poultry Meat Collected from Different Markets of District Murree, Punjab, Pakistan (Under Minor Revisions)
- 8. Docking of Velpatasvir to the SARS-CoV-2 Viral Spike Protein-Human ACE2 Complex: repurposing for COVID-19 (Under review)
- 9. Updates on measles incidence and eradication: Emphasis on the immunological aspects of measles infection (Under Review).

- 10. Simple Non-invasive Models for the Prediction of Compensated Cirrhosis in Chronic Hepatitis C Patients (Under Review)
- 11. Comparative Study of Bacterial Diversity Between Healthy Persons and Patients with Oral Cavity Disorders (Under Review)

#### **NCBI Submissions (Gene Bank)**

Sequence Read Archive (SRA) submission: BioProject: PRJNA692303

Titled: Muhammad Adnan Shereen / Project type: Raw sequence Reads.

Accession Number:

- SRR13448311 (Control)
- SRR13448312 (Zika Virus Treated)

# **Practical Skills and Expertise**

- Scientific Skills: Excellent scientific and problem-solving skills, especially in Microbiology, Virology, Immunology, and Innate Immunity.
  - 1. Culturing, Screening, and Morphological/Biochemical identification of different pathogenic microbes from clinical isolates.
  - 2. Primary cell isolation (culturing) from freshly dead animals.
  - 3. Different types of Microscopies including Fluorescence Microscopy.
  - 4. Sequencing (Bioinformatic analysis)
  - 5. Animal Modeling (Breading, Dissection, organ isolation).
  - 6. Different types of PCRs, blotting assays, ELISA, and other Serological techniques.
  - 7. DNA, RNA, Protein, and Plasmid extractions.
  - 8. Transfection and different cell activities including drug activities.
  - 9. Synthesis of Biomaterials.
  - 10. Synthesis and Characterization of drug-loaded nanoparticles (Nanomedicine) against different clinical diseases.
- **Computer and Data Analysis skills:** Competent with MS Office, Excel, and PowerPoint used during my research data analysis.
  - 1. Bioinformatic analysis in preparing RNA sequencing results.
  - 2. Software: DAVID, ImageGP, ToppGene, Heatmapper etc.
  - 3. Excellent in technical and research paper writing, and a high level of interest in research and development.

#### • Writing Skills:

- 1. Guest Editor in the journal "Viruses"
- 2. Critical reviewer
- 3. Graphic Designer for the Graphical representation of research/review articles and poster presentation
- Organizational skills and competencies:
  - 1. Professionally committed, good communication skills, ability to meet deadlines, and enjoy working in a group. Active cooperative and social, responsible, and possess coordination skills.
  - 2. Hands-on experience in Virology, Immunology, and Microbiology related research

- 3. Good knowledge of virus-host interaction and host innate immune responses.
- Languages: Pashto (Fluent), English (Fluent), Urdu (Fluent), Punjabi (Fluent), Chinese (basic)

# Professional Experiences and

#### Educational Projects

- Lecturer (Regular, BPS-18) at Kohsar University of Murree, Kashmir Point, Pakistan (07-March 2022 – Till Date) Teaching different subjects at the Department of Microbiology, University of Haripur.
- Lecturer at the University of Haripur, Haripur, Pakistan (01-Oct 2021 28-Feb 2022) Teaching different subjects at the Department of Microbiology, University of Haripur.
- Worked as a Research Associate in Professor Kailang Wu and Professor Jianguo Wu's lab "State Key Laboratory of Virology" during Ph.D. (2017-2021)
- The CSCB Training Course on Mouse Genetics and Phenotyping (Sept 17-21, 2018) This Training Course was organized and hosted by, the Model Animal Research Center, Nanjing University, China, and Chinese Society for Cell Biology.
- **Demonstrator at Jinnah Medical College, Peshawar, Pakistan (**Jan 2015-Jan 2016) Taught General Bacteriology, Immunology, and Parasitology at the Department of Pathology.
- Internee at Govt. Lady Reading Hospital, Peshawar, Pakistan (Jun 2012– Dec 2012)
   Gained essential field experience as an Internee at the Pathology department (Microbiology, Serology, PCR, and ELISA) at Post Graduate Medical Institute, Govt. Lady Reading Hospital, Peshawar.

#### Administrative / Management Experience

- Deputy Registrar (Administration), Kohsar University Murree (BS-18) (21-11-2022 to Date)
- Deputy Director QEC, Kohsar University Murree (BS-18) (26-09-2022 to Date)
- Deputy Incharge Campus (Jhika Gali Campus), Kohsar University Murree (22-11-2022 to Date)
- Security Officer, Kohsar University Murree (BS-17) (23-11-2022 --- 22-02-2023)
- Academic Coordinator, Dept. of Microbiology (20-03-2022 to Date)
- Transport Officer (Kohsar University Murree) Working as a Transport Officer, designing routes looking after the University vehicles, and running the university transport department.
- State Care Officer (Kohsar University Murree) Supervision the state of the university, over 80 employees

- Assistant Controller of Examination (The University of Haripur) Oct 2021 March 2022 Conducted internal exams of 300 students at the undergrad level.
- **Program Coordinator (The University of Haripur)** Oct 2021 March 2022 Planned and implemented workshops, Seminars, and program events.

# **Technical Reports and Presentations**

- 1. "Zika virus can alter brain cortical cells (astrocytes)" presented at College of Life Sciences, Wuhan University, China.
- 2. "Enteroviruses can replicate in Neural cells" presented at College of Life Sciences, Wuhan University, China.
- 3. **"TLR7 induces dysregulation of glial cells (astrocytes) upon Zika virus infection"** presented at College of Life Sciences, Wuhan University, China.
- 4. Master of Philosophy thesis seminar entitled "Synthesis and Characterization of Miltefosine Loaded Thiolated Nanoparticles for Leishmaniasis Therapy" presented in IBMS, Khyber Medical University.

# **Conference/Seminars/Work Shops: Organized /Attended**

- Successfully organized a Master Class on "Promoting critical thinking through STEM- Science, Technology, Engineering, Math" (August 21-25, 2023) held at Kohsar University, organized by Pakistan-US Alumni Networking (PUAN) and supported by USFEP.
- 2. Successfully **organized** a Summer School on "**Advances in Bioinformatics**" (July 18-22, 2022), organized by the Department of Microbiology, Haripur University, Haripur, Pakistan
- 3. Attended International Workshop on "Biosafety Laboratory Management and Techniques" (December 16-17<sup>th</sup>, 2021) in Wuhan, China, organized by Wuhan Institute of Virology, Chinese Academy of Sciences.
- 4. Successfully **organized** a workshop on **"Applications of Biostatistics in Life Sciences Research Based Data**" (January 18<sup>th</sup>, 2022) organized by the Department of Microbiology, The University of Haripur.
- Shared knowledge and expertise as a Guest Speaker during the workshop entitled "Synopsis Writing" (November 12<sup>th</sup>, 2021) organized by the Department of Microbiology, Jinnah University for Women, Karachi.
- 6. Successfully **organized** a "**one Day Dengue Awareness Campaign**" (December 30<sup>th</sup>, 2021) organized by the Department of Microbiology, The University of Haripur.
- 7. Successfully organized a seminar on "Emotional Resilience: A step forward to optimize self-awareness self-control and performance" (November 4, 2021) organized by the Department of Microbiology, The University of Haripur.
- Successfully organized a workshop on "Hands-on training, Application of Real-time PCR in the Era of Molecular Diagnosis" (October 13-15<sup>th</sup>, 2021), organized by the Department of Microbiology, The University of Haripur.
- Successfully organized a workshop on "Curriculum Vitae Composition Skills" (October 5<sup>th</sup>, 2021), organized by the Department of Microbiology, The University of Haripur.
- 10. Participated in a workshop on **"Curriculum Vitae Composition Skills"** (October 5<sup>th</sup>, 2021), organized by the Department of Microbiology, The University of Haripur.
- 11. Attended International Workshop on "Biosafety Laboratory Management and Techniques" (December 17-18<sup>th</sup>,2020) in Wuhan, China, organized by Wuhan Institute of Virology, Chinese Academy of Sciences.
- 12. The CSCB Training Course on Mouse Genetics and Phenotyping (September 17-21, 2018). This Training Course was organized by Cell and hosted by, the Model Animal Research Center, Nanjing University, China, and the Chinese Society for Biology

- 13. 2-day workshop on Recent Advances and New Horizons in Chemistry (Nanotechnology and Chromatography techniques) organized by the National Center of Excellence in Physical Chemistry, the University of Peshawar on April 6-7, 2015.
- 14. National Workshop on Hepatitis C, organized by the Department of Microbiology on 6<sup>th</sup> March 2008 at KUST Kohat.
- 15. International Workshop on Biotechnology for Development organized by the Department of Biotechnology and Genetic Engineering on March 4<sup>th</sup> -5<sup>th</sup> 2008 at KUST Kohat.
- **16.** 3<sup>rd</sup> One Day Workshop on Young Researchers Skill Development and Muslim Scientists Day Poster Exhibition organized by NAYS on March 10<sup>th,</sup> 2012, at Agriculture University Peshawar.
- 17. **One Day Workshop on Minds to Market,** 1<sup>st</sup> December 2012 organized by NAYS at COMSATS institutes of information and technology Abbottabad.
- 18. NAYS Science Forum 2013 was held at the University of Peshawar on 9<sup>th</sup> April 2013, organized by NAYS.
- 19. **A Public health campaign** at Peshawar University on 16<sup>th</sup> March 2012 was organized by the Asian Medical Students Association Pakistan.

# **Students Under Supervision**

S.NO	Student Names	Program	Status
1.	Yumna Bilal	MS	In Progress
2.	Mahnoor Ijaz	MS	In Progress
3.	Hashir Khan	MS	In Progress
4.	Asma Sakhawat	MS	In Progress

# **References**

• **Prof. Dr. Syed Habib Ali Bokhari,** Professor, Vice Chancellor, Kohsar University Murree, Commonwealth fellow and Scholar, Full Bright Scholar.

Email: habib. bokhari@kum.edu.pk

• **Prof. Luo Zhen**, Assistant Professor, Guangdong Key Laboratory of Virology, Department of Medical Microbiology, Jinan University, China,

Email: <u>lz88mvp@163.com</u> Contact: +86-13627222364

- Prof. Momin Khan, Associate Professor, IBMS, Khyber Medical University, Peshawar, Pakistan Email: <u>mominkhan.ibms@kmu.edu.pk</u> Contact: +92-3479803912
- **Prof. Jianguo Wu (Late)**, Professor, State Key Laboratory of Virology, College of Life Sciences, Wuhan University, China.

Email: jwu@whu.edu.cn Contact: +86-13807107795