

**DR. SHAHZAD ALI**



**Current Position:**

- **Associate Professor (Tenured)**  
Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Lahore, Ravi Campus, C-Block, Pattoki, Pakistan

**E-mail:**

[shahzad.ali@uvas.edu.pk](mailto:shahzad.ali@uvas.edu.pk)

**RESEARCH PROJECTS**

Project title	Funding agency	My role	Estimated cost	Status
Seroprevalence and Risk Factors Associated With <i>Toxoplasma gondii</i> in Wild Birds and Human in District Lahore, Pakistan	Higher Education Commission, Pakistan	Principal Investigator	Rs. 301,300/ millions	Completed
Epidemiology and molecular characterisation of fish bacterial pathogens associated with EUS and MAS in Punjab, Pakistan	Endowment Fund Secretariat, UAF, Faisalabad, Pakistan	Principal Investigator	0.822 million (Rs.)	Completed
Epidemiology and Molecular Characterization of <i>Aeromonas sp.</i> Isolates from Pakistani Farmed Carp: A Step towards Possible Vaccine Development for Aquaculture Application	Higher Education Commission, Pakistan	Principal Investigator	2.775546 million (Rs.)	Completed
Vocational Training on Modern Honeybee Keeping and Management	Higher Education Commission, Pakistan	Principal Investigator	0.5 (Rs.)	completed
Understanding the Risk of Bat-Borne Zoonotic Disease Emergence in Western ASIA	United States Department of Defense, Defense Threat Reduction Agency (DTRA)	Principal Investigator (Pakistani side)	Rs. 11.8 million (\$76,450)	Completed
Spatial Epidemiology, Molecular Identification and Detection of Ticks and Tick-borne Diseases in Punjab, Pakistan"	ALP-PARC, Pakistan	Principal Investigator	4.4675 million (Rs.)	Completed
Epidemiology and Molecular Detection of Influenza Virus (A & D) at Human-Animal Interface in Pakistan	United States Department of State, USA	Principal Investigator	Rs. 3.87 (\$25,000)	Completed
Vaccine Production for Aeromonas Species Associated with Bacterial Diseases in Farmed Fish of Punjab Province, Pakistan	Punjab Agriculture Research Board	Project Manager	Rs. 10.6 millions	Completed

## Publications

- Tooba Latif, Shahzad Ali, Arshad Javid, Ali Ahmad Sheikh. 2024. Occurrence, characteristics, and antibiotic sensitivity of Staphylococcus aureus isolated from wild birds in the Kasur district of Punjab, Pakistan” Veterinary Research Forum. 15 (6): 283 - 290 doi: 10.30466/vrf.2024.2009978.3990. **Impact Factor = 1.0 X**
- Javier Abalos, Titus Adhola, Windsor Aguirre, Ostaizka Aizpurua, **Shahzad Ali**, et al. 2024. A global initiative for ecological and evolutionary hologenomics. Trends in Ecology and Evolution. doi:https://doi.org/10.1016/j.tree.2024.03.005. **Impact Factor = 16.8 W**
- Ejaz M, **Ali S**, Syed MA, Melzer F, Faryal R, Dadar M, Abbasi SA, El-Adawy H and Neubauer H (2024) Seroprevalence and molecular detection of brucellosis among Pakistani women with spontaneous abortion. *Front. Public Health*. 12:1372327. doi: 10.3389/fpubh.2024.1372327. **Impact Factor = 5.2. W**
- Attaullah, Shahzad Ali**, Arshad Javid, Muhammad Imran, Tahir Mehmood Khan, Kendra Phelps, Kevin J. Olival, Jenő Kontschán, Sándor Hornok. 2023. Phylogenetic relationships of a novel bat fly species infesting the geographically widespread Old World fruit

bat, *Rousettus leschenaultii*, in Southern Asia. *Parasitology Research*. <https://doi.org/10.1007/s00436-023-07909-0>. **Impact Factor = 2.383. W**

5. **Rizwan M**, Ali S, Javid A, von Fricken ME, Rashid MI. Molecular epidemiology of Bartonella species from sympatric mammals collected in urban and rural areas of Punjab, Pakistan. *Acta Trop*. 2023 Jul;243:106940. doi: 10.1016/j.actatropica.2023.106940. **Impact Factor = 3.222. W**
6. **Rizwan M**, **Ali S**, Javid A, Rashid MI. Molecular detection of Toxoplasma gondii among commensal rodents from the Sahiwal division, Punjab, Pakistan. *Parasitol Res*. 2023 Jan;122(1):299-306. doi: 10.1007/s00436-022-07729-8. Epub 2022 Nov 19. PMID: 36401141. **Impact Factor = 2.383. W**
7. Xu T, Rasmussen-Ivey CR, Moen FS, Fernández-Bravo A, Lamy B, Beaz-Hidalgo R, Khan CD, Castro Escarpulli G, Yasin ISM, Figueras MJ, Azzam-Sayuti M, Karim MM, Alam KMM, Le TTT, Thao NHP, Addo S, Duodu S, **Ali S**, Latif T, Mey S, Somony T, Liles MR. A Global Survey of Hypervirulent *Aeromonas hydrophila* (vAh) Identified vAh Strains in the Lower Mekong River Basin and Diverse Opportunistic Pathogens from Farmed Fish and Other Environmental Sources. *Microbiol Spectr*. 2023 Feb 23:e0370522. doi: 10.1128/spectrum.03705-22. Epub ahead of print. PMID: 36815836. **Impact Factor = 9.043. W**
8. **Attaullah**, **Shahzad Ali**, Arshad Javid, Muhammad Imran, Tahir Mehmood Khan, Kendra Phelps and Kevin J. Olival. Knowledge, perceptions, and attitudes by residents in Punjab and Khyber Pakhtunkhwa, Pakistan in connection with bats. *J Ethnobiology Ethnomedicine* **18**, 43 (2022). <https://doi.org/10.1186/s13002-022-00541-9>. **Impact Factor = 3.404. W**
9. Amin F, **Ali S**, Javid A, Imran M, Rashid MI, Mertens-Scholz K, Neubauer H. Sero-Epidemiology of *Coxiella burnetii* Infection in Small Ruminants in the Eastern Region of Punjab, Pakistan. *Pathogens*. 2022; 11(6):664. **Impact Factor = 4.531. W**
10. **Tayyub M**, **Ali S**, Javid A, Imran M. Molecular detection of Toxoplasma gondii and Neospora caninum in rock pigeons (*Columba livia*) in Punjab, Pakistan. *Parasitol Res*. 2022. 121(5):1499-1505. **Impact Factor = 2.383. W**
11. Hassan L, **Ali S**, Syed MA, Shah AA, Abbasi SA, Tabassum S, Saeed U, Melzer F, Khan AU, El-Adawy H and Neubauer H (2022) Risk Factors for Acute Brucellosis in Patients on the Day of Admission at Selected Hospitals of Abbottabad, Pakistan. *Front. Public Health* 9:669278. **Impact Factor = 6.461. W**
12. Tooba L, Shahzad A, Zahid M, Muhammad R, Anam I, Abdur RA, Mohammed AA, Mater HM. Molecular characterization of *Aeromonas hydrophila* isolates from diseased fishes in district Kasur, Punjab, Pakistan. *Braz J Biol*. 2022;84:e254816. doi: 10.1590/1519-6984.254816. **Impact Factor = 1.651. X**
13. Syed MA, Jamil B, Ramadan H, Rukan M, **Ali S**, Abbasi SA, Woodley TA, Jackson CR. 2021. Genetic Diversity of *Staphylococcus aureus* Strains from a Tertiary Care Hospital in Rawalpindi, Pakistan. *Microorganisms*. 9(11):2301. <https://doi.org/10.3390/microorganisms9112301>. **Impact Factor = 4.926**
14. **Muhammad Tayyub**, **Shahzad Ali**, Arshad Javid, Muhammad Imran. 2021. Prevalence and Diversity of Ectoparasites in Wild Rock Pigeon (*Columba livia*) in Punjab Region, Pakistan. *Brazilian Journal of Biology*. 83:e246887. doi: 10.1590/1519-6984.246887. **1.651. X**
15. Ahmad Naveed, **Shahzad Ali**, Haroon Ahmed, Sami Simsek, Muhammad Rizwan, Imdad Kaleem, Muhammad Asif Gondal, Asghar Shabbir, Fahad Pervaiz, Muhammad Aamir Khan, Muhammad Shahid Nadeem, Muhammad Sohail Afzaal and Sajid Umar. 2019. Seroprevalence and Risk Factors of *Toxoplasma gondii* in Wild Birds of Punjab Province, Pakistan. *Journal of Wildlife Diseases*. 55(1):129-135. **Impact Factor: 1.626. W**

#### Non-Impact Factor

1. Ali, S. and Ejaz, M. Anthrax in Pakistan. *Ger. J. Microbiol*. 3 (1): 7-12. <https://doi.org/10.51585/gjm.2023.1.0021>

#### Abstracts/Proceedings

1. Ahmad Hassan, **Shahzad Ali** and Muhammad Rizwan. Diversity and Spatial Distribution of Ticks Collected from Wild Animals in Punjab Pakistan. *Proceedings of 42th Pakistan Congress of Zoology (International) held on April 23-25, 2024 in Department of*

- Zoology, University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan.
2. Mariam Munir and **Shahzad Ali**. Molecular detection of Bartonella in rodents and ectoparasites: insights into prevalence and identification. Proceedings of 42th Pakistan Congress of Zoology (International) held on April 23-25, 2024 in Department of Zoology, University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan.
  3. **Shahzad Ali**, Nauman Faisal and Anam Iftikhar. Exploring antibiotic resistance in Escherichia coli isolates from fish and environmental sources in two Punjab districts, Pakistan. Proceedings of 42th Pakistan Congress of Zoology (International) held on April 23-25, 2024 in Department of Zoology, University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan.
  4. Ihtasham Khan, Riaz Hussain, Muhammad Farooq, **Shahzad Ali**, Muhammad Saqib, Muhammad Kashif, Abid Hussain Shahzad. New Trends of Proteomics-Based Vaccination Against Brucellosis under One-Health Perspective. Abstract published in International Conference on Current Trends, Prospects and Opportunities in Vaccine Research 28-29 February, 2024, at Centre of Excellence in Molecular Biology (CEMB), The University of Punjab, Lahore, Pakistan.
  5. Nils Bouillard, Kendra Phelps, Luke Hamel, Ketevan Sidamonidze, Lela Urushadze, Nisreen Alhmoud, Rasit Bilgin, Andrew Spalton, Zahran Ahmed Al-Abdulsalam, Astghik Ghazaryan, Nijat Hasanov, **Shahzad Ali**, and Kevin J. Olival. Challenges and opportunities in developing an acoustic sound library of Western Asian bats. Abstract published in Western Asia Bat Research Conference, 20-21 September 2023 | Virtual.
  6. Kevin J. Olival, Kendra Phelps, Luke Hamel, Ketevan Sidamonidze, Lela Urushadze, Nisreen Alhmoud, Mumen Alrwashdeh, Rasit Bilgin, **Shahzad Ali**, Attaullah, Zahran Ahmed Al-Abdulsalam, Andrew Spalton, Astghik Ghazaryan, Nijat Hasanov, Paul Bates, Jonathan Epstein, William Karesh, Tigga Kingston, Vincent Munster, Paul Racey. The Western Asia Bat Research Network – 6 years old with a sustainable future ahead. Abstract published in Western Asia Bat Research Conference, 20-21 September 2023 | Virtual.
  7. Attaullah, **Shahzad Ali**, Kendra Phelps, Kevin J Olival. Antibiotic Resistance in Escherichia coli Strains Found in Bats Inhabiting Urban and Wilderness Regions of Pakistan. Abstract published in Western Asia Bat Research Conference, 20-21 September 2023 | Virtual.
  8. Kendra Phelps, Luke Hamel, Ketevan Sidamonidze, Lela Urushadze, Nisreen Alhmoud, Rasit Bilgin, Andrew Spalton, Zahran Ahmed Al-Abdulsalam, Astghik Ghazaryan, Nijat Hasanov, **Shahzad Ali**, John Neddermeyer, William Karesh and Kevin J. Olival. Host and Environmental Correlates of Coronavirus Prevalence in Bats of Western Asia. Abstract published in Western Asia Bat Research Conference, 20-21 September 2023 | Virtual.
  9. **Shahzad Ali**, Usama Saeed, Ghulam Jaffar, Khizar Iqbal and Anam Iftikhar. Molecular epidemiology of Influenza A Virus in birds and humans in Pakistan based on one health approach. Abstract published in the 5th International Conference on Innovative Biological and Public Health Research. (IBPHR-2023). October 11-12, 2023.
  10. Muhammad Rizwan, **Shahzad Ali** and Muhammad Imran Rashid. Molecular Confirmation of Rickettsia species from Commensal Rodents from urban and rural settlements of Sahiwal division, Punjab, Pakistan. Abstract published in the 5th International Conference on Innovative Biological and Public Health Research. (IBPHR-2023). October 11-12, 2023.
  11. Mariam Munir and **Shahzad Ali**. Prevalence and Characterization of Staphylococcus aureus Isolated from Fishes in Punjab, Pakistan. Abstract published in the 5th International Conference on Innovative Biological and Public Health Research. (IBPHR-2023). October 11-12, 2023.
  12. Attaullah, **Shahzad Ali** and Shamashair Ahmad. Characterization of Staphylococcus aureus isolates from oral and rectal samples of bats in Pakistan. Abstract published in the 5th International Conference on Innovative Biological and Public Health Research. (IBPHR-2023). October 11-12, 2023.
  13. Ahmad Hassan, **Shahzad Ali**, Muhammad Rizwan and Abdul Razzaq. Assessing the diversity of tick species and their prevalence in ruminants of the Sahiwal region. Abstract published in the 5th International Conference on Innovative Biological and Public Health Research. (IBPHR-2023). October 11-12, 2023.
  14. Shamshair Ahmad, **Shahzad Ali**, Syed Ghulam Mohuyud Din Hashmi, Attaullah, Muhammad Rizwan, Ahmad Hassan and Sohail Ahmad. Geographic information system-based distribution and genetic diversity of hornets in the selected districts of Punjab and Khyber Pakhtunkhwa Province, Pakistan. Abstract published in the 5th International Conference on Innovative Biological and Public Health Research. (IBPHR-2023). October 11-12, 2023.
  15. Fareeha Imran, **Shahzad Ali**, Saima Naz and Anam Iftikhar. Point Prevalence of ectoparasites and associated risk factors in captive and domesticated birds of district Kasur, Punjab, Pakistan. Abstract published in the 5th International Conference on Innovative Biological and Public Health Research. (IBPHR-2023). October 11-12, 2023.
  16. Sadia Rasool, **Shahzad Ali**, Anam Iftikhar, Sidra Safdar, Attaullah. Investigations of nosemosis Infection in Apis mellifera colonies through copro-PCR method. Abstract published in the 5th International Conference on Innovative Biological and Public Health Research. (IBPHR-2023). October 11-12, 2023.
  17. Ghulam Jaffar, **Shahzad Ali**, Anam Iftikhar, Usama Saeed, Emily Robie, Gregory C. Gray. Prevalence of Influenza A virus and risk assessment in birds in Kasur Pakistan. Abstract published in the 4th International conference on Innovative Biological and Public Health Research. (IBPHR-2021). December 07-08, 2021.
  18. Attaullah, **Shahzad Ali**, Muhammad Rizwan, Abdul Malik, Usama Saeed, Kendra Phelps, Kevin J Olival. Molecular Identification and Antibiotic Resistance of Staphylococcus aureus Isolated from Bats from Sheikhpura Region. Abstract published in the 4th International conference on Innovative Biological and Public Health Research. (IBPHR-2021). December 07-08, 2021
  19. Muhammad Rizwan, **Shahzad Ali**, Abdul Razzaq, Ahmad Hassan, Usama Saeed, Haroon Akbar, Muhammad Imran Rashid. Morphological and Molecular Identification of Rhipicephalus microplus in association with host factors in Sheep and goats from District Okara, Punjab, Pakistan. Abstract published in the 4th International conference on Innovative Biological and Public Health Research. (IBPHR-2021). December 07-08, 2021
  20. Tooba Latif, **Shahzad Ali**, Anam Iftikhar, Usama Saeed, Ahmad Hassan, Muhammad Rizwan, Attaullah. Epidemiology of Motile

- Aeromonas Septicemia (MAS) in Commercial Fish Farms of Selective Districts of Punjab, Pakistan. Abstract published in the 4th International conference on Innovative Biological and Public Health Research. (IBPHR-2021). December 07-08, 2021
21. Abdul Razzaq, Asim Shamim, **Shahzad Ali**, Muhammad Sohail Sajid, Umar Farooq, Amanullah, Munib Hussain, Aysha Malik, Sadaf Shahid, Aneela Javed and Kiran Afshan. Epidemiology and diagnosis of tick borne diseases including Crimean Congo Hemorrhagic Fever (CCHF) at Pakistan. PARACON 2019-International Parasitology Conference-Food Safety Through Parasite Control, Held at Department of Parasitology, University of Veterinary and Animal Sciences, Lahore, Pakistan, November 6, 2019. pp.30-31.
  22. **Shahzad Ali** and Ume Amara. 2018. Clinical Signs and symptoms associated with human brucellosis in district Jhelum, Punjab, Pakistan. Proceedings of 38th Pakistan Congress of Zoology (International) held on February 27-March 01, 2018 in University of the Punjab, Lahore, Pakistan.
  23. Syed Abeer Fatima, **Shahzad Ali**, Tooba Latif, Nida Safdar and Abdul Rehman Azam. 2018. Prevalence and antibiotic resistance of *S. aureus* in selected avian species in Pattoki, Punjab, Pakistan. Proceedings of 38th Pakistan Congress of Zoology (International) held on February 27-March 01, 2018 in University of the Punjab, Lahore, Pakistan.
  24. A. Azam, I. Khan, M. Imran, **S. Ali**, I. Rashid, W. Shahzad, M. Saqib, W. Ahmad, H. Eladawy. 2018. DNA based detection of Brucella zoonosis as a blood transfusion hazard in metropolitan population of Lahore and Okara, Punjab, Pakistan. 18th Congress of ICID, Buenos Aires, Argentina. 1-4 March, 2018.
  25. **Shahzad Ali**, Heinrich Neubauer, Falk Melzer, Iahtasham Khan. 2016. Current status of animal and human brucellosis in Pakistan: Genomic based evidence. Proceedings of the Middle East and South Asia Conference on Epigenetics and Genomics of Infectious Diseases” in Amman, Jordan from March 7-9, 2016.
  26. Faisal Abbas, **Shahzad Ali**, Iahtasham Khan, Falk Melzer, Heinrich Neubauer. 2016. Human Brucellosis in District Multan and Muzaffargarh, Punjab, Pakistan. Proceedings of 2<sup>nd</sup> International Conference on Zoonoses, held on October 20-21, 2016 in Bahauddin Zakariya University, Multan, Pakistan.
  27. **Shahzad Ali**, Heinrich Neubauer, Falk Melzer, Iahtasham Khan, Waseem Ahmad Khan. *Brucella Abortus* Identified As The Causative Agent Of Brucellosis In Small Ruminants In Pakistan. Proceedings of 36<sup>th</sup> Pakistan Congress of Zoology, held on February 16-18, 2016 in University of Sindh, Jamshoro, Pakistan.
  28. Iahtasham Khan, Mandy Elschner, Katja Mertens, **Shahzad Ali**, Muhammad Saqib and Mayada Gwida. 2016. Evaluation of a Commercially Available One-Step Real-time Polymerase Chain Reaction Assay Kit for the Diagnosis of Glanders. Proceedings of 2<sup>nd</sup> International Conference on Zoonoses, held on October 20-21, 2016 in Bahauddin Zakariya University, Multan, Pakistan.
  29. Shakeela Anjum, Iahtasham Khan, Abdul Shakoor, Muhammad Younus, Khushi Muhammad, **Shahzad Ali**, Mian Muhammad Awais, Amar Nasir, and Hosny El-Adawy. 2016. Seroepidemiology of Brucellosis in Pregnant and Women Presented with Abortion in Rural and Urban Areas in Three Selected Districts of Punjab Province, Pakistan. Proceedings of 2<sup>nd</sup> International Conference on Zoonoses, held on October 20-21, 2016 in Bahauddin Zakariya University, Multan, Pakistan.
  30. Muhammad Tahir, Iahtasham Khan Muhammad Younus, Syed Ehtasham-ul-Haq, Nasrullah Khan, **Shahzad Ali** and Hosny El-Adawy. 2016. Seroprevalence of Brucellosis in Ruminants at Sale and Purchase Markets and abattoirs in Three Selected Districts of Punjab, Pakistan. Proceedings of 2<sup>nd</sup> International Conference on Zoonoses held on October 20-21, 2016 in Bahauddin Zakariya University, Multan, Pakistan.
  31. **Shahzad Ali**, Heinrich Neubauer, Falk Melzer, Iahtasham Khan, Waseem Ahmad Khan. *Brucella Abortus* Identified As The Causative Agent of Brucellosis in Small Ruminants in Pakistan. Proceedings of 36<sup>th</sup> Pakistan Congress of Zoology, held on February 16-18, 2016 in University of Sindh, Jamshoro, Pakistan.
  32. Zaib Ul Nisa, Iahtasham Khan, Heinrich Neubauer, Falk Melzer, Rizwana Kausar, Warda Riaz, Hira Hassan, Tayyaba Khan, Faisal Abbas, **Shahzad Ali**. 2016. Seroprevalence of Brucellosis in Goats and Sheep in Punjab, Pakistan. Proceedings of 36<sup>th</sup> Pakistan Congress of Zoology held on February 16-18, 2016 in University of Sindh, Jamshoro, Pakistan.
  33. Rizwana Kausar, Iahtasham Khan, Heinrich Neubauer, Falk Melzer, Warda Riaz, Hira Hassan, Tayyaba Khan, **Shahzad Ali**. 2016. Seroprevalence, Risk Factors And Clinical Symptoms Associated With Human Brucellosis In District Sheikhpura, Punjab Pakistan. Proceedings of 36<sup>th</sup> Pakistan Congress of Zoology, held on February 16-18, 2016 in University of Sindh, Jamshoro, Pakistan.
  34. Warda Riaz, Iahtasham Khan, Heinrich Neubauer, Falk Melzer, Rizwana Kausar, Hira Hassan, Tayyaba Khan, Faisal Abbas, **Shahzad Ali**. 2016. Human Brucellosis in Tehsil Sharqpur, Punjab, Pakistan. Proceedings of 36<sup>th</sup> Pakistan Congress of Zoology, held on February 16-18, 2016 in University of Sindh, Jamshoro, Pakistan.
  35. Muhammad Farooq, **Shahzad Ali** and Waseem Ahmad Khan. 2016. Distribution and Diversity of Amphibians & Reptiles at Kalabagh, District Mianwali, Pakistan. Proceedings of 36<sup>th</sup> Pakistan Congress of Zoology, held on February 16-18, 2016 in University of Sindh, Jamshoro, Pakistan.
  36. Waseem Ahmad Khan, **Shahzad Ali**, Khizar Iqbal, Syed Rooh Ullah, Ambreen Ilyas, Nabeelah Shahzadi, Mohtasim Ahmad Khan, Arz Muhammad, Sharif-ud-Din and Saeed Akhtar Baloch. 2016. New distribution records of Smooth-coated otter (*Lutrogale perspicillata*) from Balochistan, Pakistan. Proceedings of 36<sup>th</sup> Pakistan Congress of Zoology, held on February 16-18, 2016 in the University of Sindh, Jamshoro, Pakistan.
  37. I. Khan, M. Saqib, **S. Ali**, F. Melzer, M. Gwida, H. Eladawy, H. Neubauer, M. Ijaz ; M.C. Elschner. Effect of incubation temperature on the diagnostic sensitivity of the glanders complement fixation test. Junior Scientist Zoonoses Meeting 2015, Munich-Oberschleißheim, June 8 – 10, 2015
  38. **Shahzad Ali**, Shamim Akhter, Qurban Ali and Iahtasham Khan. 2015. Zoonotic threat associated with aquaculture in Pakistan: *Aeromonas Hydrophila* as causative agent of the epizootic ulcerative syndrome in Freshwater fish, Pakistan. 10th Biennial International Conference of Pakistan Society for Microbiology March 25 – 28, 2015, University of the Punjab, Lahore
  39. **Shahzad Ali**, Falk Melzer, Iahtasham Khan, Qurban Ali, Shamim Akhter and Heinrich Neubauer. 2014. Seroprevalence, Molecular

Detection and Risk Factors Associated With Bovine Brucellosis in Pakistan. Abstract presented in the 114th **American Society for Microbiology** General Meeting (GM), at the Boston Convention & Exhibition Centre located at 415 Summer Street, Boston, Massachusetts, USA, 17–20 May 2014.

40. **Shahzad Ali**, Qurban Ali, Heinrich Neubauer, Falk Melzer, Mandy Elschner, Iahtasham Khan, Emmanuel Nji Abatih, Nemat Ullah, Muhammad Irfan, Shamim Akhter. Real Time Polymerase Chain Reaction (qRT-PCR) Assay Based Molecular Diagnosis of Brucellosis in High Risk Occupations in Pakistan. International Conference on the Applications of Molecular Biology in Medicine and Agriculture August 20-22, 2013.
41. **Shahzad Ali**, Muhammad Sajjad, Nemat Ullah, Shamim Akhter, Iahtasham Khan, Muhammad Aamir Khan. 2013. Serum testosterone level, scrotal circumference and semen characteristics in Nili-Ravi buffalo bulls fed two levels of feed. International Livestock Conference, October 23-24, held at University of Veterinary and Animal Sciences, Lahore, Pakistan.
42. **Shahzad Ali**, Falk Melzer, Iahtasham Khan, Qurban Ali, Nemat Ullah, Muhammad Irfan, Ali Muhammad, Gamal Wareth Mohamed, Shamim Akhter and Heinrich Neubauer. 2012. Seroprevalence of Brucellosis in High Risk Professionals in Pakistan. DVG (German Veterinary Medical Society) Symposium in Leipzig, University of Leipzig, Germany. Held on 27- 30 June 2012.
43. **Shahzad Ali**, Qurban Ali, Shamim Akhter, M. Jamal, Rehana Anjum. Human Brucellosis: Seroprevalence, Clinical History And Potential Risk Factors Associated With Brucellosis In Pregnant Women In Rawalpindi, Pakistan. Proc in 3<sup>rd</sup> international symposium-cum-training on molecular medicine and drug research held on 27-29 January 2011, University of Karachi. Pakistan.
44. **Shahzad Ali.**, Qurban Ali., Rehana Kausar., Eid Nawaz., Shamim Akhter Characterization of *Aeromonas hydrophila* causing Epizootic ulcerative syndrome. 29<sup>th</sup> Pakistan Congress of Zoology, 25-26.
45. Khan I, M. Elschner, F. Melzer, **S. Ali**, K. Mertens and H. Neubaur. 2012. Evaluation of analytical-sensitivity and -specificity of a commercially available one-step real-time polymerase chain reaction assay kit for the detection of *Burkholderia mallei*. DVG (German Veterinary Medical Society) Symposium in Leipzig, University of Leipzig, Germany. Held on 27- 30 June 2012.
46. Sajjad, M., N. Ullah., M. Anwar., **S. Ali** and S. Akhtar. 2006. Effect of gonadotropin releasing hormone (GnRH) and diet on sperm morphology of senile buffalo bulls. 26<sup>th</sup> Pakistan Congress of Zoology.
47. Sajjad, M., **S. Ali.**, N. Ullah., S. Akhtar., M. Anwar., S. M. H. Andrabi and M. Qayyum. 2006. Relationship between testosterone level in blood plasma and semen out-put of senile buffalo bulls. 26<sup>th</sup> Pakistan congress of Zoology, 19.
48. Sajjad, M., N. Ullah., M. Anwar., **S. Ali.**, and S. Akhtar. 2005. Effect of gonadotropin releasing hormone (GnRH) and improved feeding on semen characteristics in senile buffalo bulls. 25<sup>th</sup> Pakistan Congress of Zoology, 25-26.

#### **Oral and Poster Presentations**

##### **International**

1. Oral presentation at the 4th Annual Workshop of the Western Asia Bat Research Network (WAB-Net), held virtually from 7-8 December 2021
2. Paper entitled “Molecular Detection of Brucellosis at Human-Animal Interface in Punjab Province, Pakistan” Presented in 12th Malaysia International Genetics Congress (MiGC12), 25 - 27 September 2017, Bangi-Putrajaya Hotel, Selangor, Malaysia. (Oral Presentation)
3. **Shahzad Ali**, Heinrich Neubauer, Falk Melzer, Iahtasham Khan. 2016. Current status of animal and human brucellosis in Pakistan: Genomic based evidence. POSTER PRESENTATION in the Middle East and South Asia Conference on Epigenetics and Genomics of Infectious Diseases” in Amman, Jordan from March 7-9, 2016.

##### **Local**

1. **Shahzad Ali**, Nauman Faisal and Anam Iftikhar. Exploring antibiotic resistance in Escherichia coli isolates from fish and environmental sources in two Punjab districts, Pakistan. Paper presented in 42th Pakistan Congress of Zoology (International) held on April 23-25, 2024 in Department of Zoology, University of Azad Jammu and Kashmir, Muzaffarabad, Pakistan. **ORAL PRESENTATION**
2. Ghulam Jaffar, Shahzad Ali, Anam Iftikhar, Usama Saeed, Emily Robie, Gregory C. Gray. Prevalence of Influenza A virus and risk assessment in birds in Kasur Pakistan. **Poster Presentation** at the 4th International Conference on Innovative Biological and Public Health Research. (IBPHR-2021). December 07-08, 2021.
3. Paper entitled “Clinical signs and symptoms associated with human brucellosis in district Jhelum, Punjab, Pakistan” Presented in 38th Pakistan Congress of Zoology (International), February 27 – March 01, 2018, University of the Punjab, Pakistan. **ORAL PRESENTATION**
4. Paper entitled “Seroprevalence, Clinical Symptoms and Risk Assessment for Human Brucellosis in Islamabad, Pakistan” Presented in 37th Pakistan Congress of Zoology (International), February 28 – March 2, 2017, GCU, Faisalabad, Pakistan. **ORAL PRESENTATION**
5. Faisal Abbas, **Shahzad Ali**, Iahtasham Khan, Falk Melzer, Heinrich Neubauer. 2016. Human Brucellosis in District Multan and Muzaffargarh, Punjab, Pakistan. POSTER PRESENTATION in 2<sup>nd</sup> International Conference on Zoonoses, held on October 20-21, 2016 in Bahauddin Zakariya University, Multan, Pakistan.

6. **Shahzad Ali**, Heinrich Neubauer, Falk Melzer, Iahtasham Khan, Waseem Ahmad Khan. *Brucella Abortus* identified as the Causative Agent of Brucellosis in Small Ruminants in Pakistan. ORAL PRESENTATION in 36<sup>th</sup> Pakistan Congress of Zoology, held on February 16-18, 2016 University of Sindh, Jamshoro, Pakistan.
7. **Shahzad Ali**, Heinrich Neubauer, Falk Melzer, Iahtasham Khan. Zoonoses and Public Health: Bacteriology and Nucleic Acid Based Detection of Human Brucellosis in Pakistan. ORAL PRESENTATION in 13<sup>th</sup> Medical Microbiology & Infectious Diseases Conference held at Pearl Continental Hotel, Lahore, Pakistan. March 25-26, 2016.
8. Muhammad Naeem Iqbal, Aftab Ahmad Anjum, Muhammad Asad Ali, Shihua Wang, **Shahzad Ali**, Ali Muhammad, Muhammad Irfan, Aftab Ahmad, Asghar Shabbir. 2015. Characterization of Multidrug-Resistant Bacteria from Packed Fruit Juices Sold in Lahore City. **Oral presentation** in 4<sup>th</sup> International Molecular Biology and Biotechnology Congress and Conference on Life Sciences Research 2015, take place at Al-Nafees Medical College and Hospital, Isra University, Islamabad Pakistan, September 04-06, 2015.

#### PROFESSIONAL TRAININGS/SEMINARS/WORKSHOPS/CONFERENCES

##### Organized

1. **Chief Organizer** of One-Day Training Workshop On “APPLICATION OF ANALYTICAL PROFILE INDEX (API) AS BACTERIAL IDENTIFICATION SYSTEM” at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki, December 14, 2023
2. **Chief Organizer** of One-Day Training Workshop On "EMPOWERING WILDLIFE RESEARCHERS THROUGH CAPACITY BUILDING: IDENTIFYING TICKS IN WILDLIFE USING ADVANCED TECHNIQUES” at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki, December 21, 2023
3. **Member Organising Committee** Western Asia Bat Research Conference 20-21 September 2023 (Virtual)
4. **Chief Organizer** of One Day Hands-on Training Workshop “Capacity Building of Scientists in Advanced Diagnostic Techniques for Identification of Ticks and Tick-Borne Diseases” under the project “Spatial Epidemiology, Molecular Identification, and Detection of Ticks and Tick-borne Diseases in Punjab, Pakistan (AS141)” funded by Agriculture Linkage Programme (ALP), Pakistan Agricultural Research Council (PARC) at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki (June 30, 2022)
5. **Chief Organizer** of one-day training workshop entitled “Capacity Building of Young Scientists in Enzyme-linked immunosorbent assay (ELISA) as a Diagnostic Tool for Emerging Infectious Diseases” dated 04-08-2022 at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Lahore, Ravi Campus, Pattoki
6. **Chief Organizer** of one-day seminar entitled “Importance of Ticks and Tick-borne Diseases” dated 30-09-2022 at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Lahore, Ravi Campus, Pattoki
7. **Chief Organizer** of one-day training workshop entitled “Capacity building of farmers regarding ticks control” dated 06-10-2022 at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Lahore, Ravi Campus, Pattoki
8. **Chief Organizer** of One Day Workshop on “Advanced Microscopy” at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Lahore, Ravi Campus, Pattoki, Dated November 19, 2021
9. **Chief Organizer** of One-day seminar on “Prevention & Control of Dengue”, on 2<sup>nd</sup> December, 2019, Jointly Organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, UVAS, Lahore Ravi Campus & District Health Authority Kasur, Primary and Secondary Healthcare Department, Government of Punjab, Pakistan.
10. **Resource Person** in one day Hands-on Training Workshop on “Reference and Citation Management Using Mendeley” on 14<sup>th</sup> November, 2019 Organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Lahore Ravi

Campus Pattoki

11. **Chief Organizer** of One day seminar on “Entosis and Cellular Cannibalism-A novel cell death process that occurs by cell in cell internalization”, on 08<sup>th</sup> November 2019, Organized by the Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, UVAS, Lahore Ravi Campus Pattoki
12. **Chief Organizer** of One day seminar on “Integrated Pest Management (IPM)”, on 24<sup>th</sup> September, 2019, Jointly Organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, UVAS, Lahore Ravi Campus Pattoki & Pestex Environmental Sciences, Pakistan.
13. **Chief Organizer** of One day seminar on “Pakistan snow leopard & Ecosystem protection program(PSLEP)”, on 23<sup>rd</sup> April, 2019, Jointly Organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, UVAS, Ravi Campus & Snow leopard foundation, Pakistan.
14. **Resource Person** in Two days Hands-on Training Workshop on “Sanger sequencing Data analysis”, Organized by Department of Wildlife and Ecology, University of veterinary and animal sciences, Ravi Campus, Held on 10<sup>th</sup>-11<sup>th</sup> April, 2019.
15. **Chief Organizer** of one day seminar on ‘Control strategies of fish diseases’ Organized by Department of Wildlife and Ecology, University of veterinary and animal sciences, Ravi Campus, Held on January 28, 2019.
16. **Member Organizing Committee** of one day international seminar on “Recent Advances in Zoological Sciences” on 10<sup>th</sup> May 2018, organised by Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Lahore Pakistan.
17. **Chief Organizer** of One-day Hands-on-Training workshop on “Laboratory Bio-safety and Biosecurity” on May 04, 2018, jointly organized by American Society for Microbiology Student Chapter at UVAS, Ravi Campus and Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki.
18. **Chief Organizer** of One Day Hands-On Training “HONEYBEE KEEPING AND MANAGEMENT” Organized by Department of Wildlife & Ecology, UVAS, Ravi Campus, Pattoki, October 20, 2018
19. **Chief Organizer** of “One Day Taxidermy Training” Organized at Department of Wildlife & Ecology, UVAS, Ravi Campus, Pattoki, December 28, 2017
20. **Secretary** of Print and Publication Committee in “6th International Fisheries Symposium & Expo, February 8-9, 2017” Organized by Faculty of Fisheries and Wildlife, UVAS, Lahore
21. **Resource Person** in One-day Hands-on-Training in ‘Taxidermy Techniques’ on February 13, 2018 organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Ravi Campus Pattoki
22. **Chief Organizer** of One-day Hands-on-Training workshop on “Laboratory Bio-safety” on November 03, 2016, jointly organized by **American Society for Microbiology** and Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki.
23. **Secretary** of 2-day Hands-on-Training on “Wildlife Photography Field Training” on November 24-24, 2016 at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki.
24. **Resource Person** of One-day workshop/hands on training on “Advanced Molecular Techniques Used in Fisheries & Wildlife Research” on Thursday 1<sup>st</sup> September, 2016 at Fisheries & Wildlife, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki.
25. **Chief Organizer** of 3-days hand on training workshop on “Butterflies/Insects Collection & Preservation Techniques” from November 4-6, 2015 at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki.
26. **Chief Organizer** of 2-day training workshop on “Zoo Animals Keeping, Zoonoses and Bio-safety Measures” jointly organized by National Association for Young Scientists (NAYS), Pakistan and American Association for Advances in Science (AAAS), USA from August 27 to 28, 2015 at Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki.
27. **Resource Person** in 3-day Hands-on-Training in ‘Animal Stuffing and Taxidermy Techniques’ from June 24-26, 2015 organized by



Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Lahore.

**28. Member Organizing Committee** in “International Conference on Biodiversity as Renewable Resources of Pakistan” held at the University of Arid Agriculture, Murree Road, Rawalpindi, Pakistan, on March 13 – 14<sup>th</sup> 2007.

#### **Attended**

##### **International**

29. Training in “Next Generation Sequencing (NGS) for Infectious Disease Applications” Organised by American Society for Microbiology February-July 2023.
30. The 2nd Annual Workshop of the Western Asia Bat Research Network (WAB-Net) 9-11 December 2019 – Amman, Jordan
31. Four day training on “ASM 52 Weeks of Biosafety-One Health Training Program In-Person Training” at COMSTECH Secretariat, **Islamabad, Pakistan** from September 13-16, 2019
32. Two month (November-December, 2018) training on “MALDI-TOF-MAS assay and Molecular Biology Investigation of *Staphylococcus sp*” in Friedrich-Loeffler-Institute, Naumburger Straße 96a, 07743, Jena, Germany, funded by DAAD (German Academic Exchange Service) under Research Stays for University Academics and Scientists, 2018 funding programme
33. Three day training on “2018 Duke One Health Respiratory Disease Training Program” at Duke-NUS Medical School, **Singapore**. The training will start from 23-25 July, 2018
34. Three week training on **ONE HEALTH APPROACH TO INFECTIOUS DISEASE PROBLEM SOLVING** at Duke Infectious Diseases & Duke Global Health Institute, Duke University, Durham, NC, USA between May 19, 2016 and June 12, 2016.
35. **American Society for Microbiology** (ASM) Culture of Responsibility Trainers Workshop (On Biosafety and Biosecurity), Certification of completion, awarded on Saturday, May 17, 2014, held at Boston Convention & Exhibition Centre located at 415 Summer Street, Boston, Massachusetts, USA.
36. Six month training on Conventional PCR (AMOS-PCR, BRU-LADDER-PCR), Real-time PCR (qRT-PCR), Genotyping of *Brucella abortus* isolates based on Multiple Locus-VNTR Assay (MLVA-16), Serological assays (RBPT, SAT, ELISA) in Friedrich-Loeffler-Institute, Naumburger Straße 96a, 07743, Jena, Germany (Dated December 15, 2011 to June 5 2012), funded by International Research Support Initiative Program (IRSIP) by HEC Pakistan

##### **Local**

1. Certificate of completion of One day hands-one training workshop on "Isolation and identification of microplastics from environmental samples" organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Ravi Campus, held on 17<sup>th</sup> November, 2023.
2. Certificate of completion of One day hands-one training workshop on "Genotoxicity assay to detect antimutagenic activity of various compounds" organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Ravi Campus, held on 21<sup>st</sup> June, 2023.
3. Certificate of attendance in seminar “International Seminar on Infection Related Features of Microorganisms” held on 5<sup>th</sup> June 2023 Organized by COMSTECH in collaboration with Karolinska Institute, Sweden
4. Certificate of participation in “One-day technical seminar on Ticks and Tick-borne diseases in Bovines” dated March 16, 2023, at Veterinary Research Institute, Lahore, jointly organized by the Veterinary Research Institute, Lahore, and the Department of Parasitology, University of Veterinary and Animal Sciences, Lahore under the HEC-GCF-273 Project entitled “Tackling food security by controlling ticks and tick-borne diseases in Bovines”.
5. Certificate of completion of three days' training workshop on "Report Writing Skills for Development Projects" organised by Akhtar Hameed Khan National Centre for Rural Development (AHKNCRD), Department of Establishment Division, Government of Pakistan, Islamabad, from February 27 - March 01, 2023.

6. Certificate of completion of One day workshop on “INTELLECTUAL PROPERTY AND PATENT FILLING” organized by Punjab Higher Education Commission at Arfa Software Technology Park, Lahore, February 22, 2023.
7. Certificate of participation for attending five days training course on “Monitoring & Evaluation of Development Projects” December 05-09, 2022 organised by Government of Pakistan, Establishment Division, AHK National Centre for Rural Development, Islamabad, Pakistan held at AHKNCRD, Islamabad
8. Certificate of completion of “Antimicrobial Stewardship Course” organised by LUMS Pakistan dated February 21-28, 2022
9. Participated in One day seminar on “Recovering Key Species for Ecosystem Restoration” Dated March 03, 2022 organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Ravi Campus.
10. Attended One day seminar on “Paleontological Techniques Hunting the Fossils” Dated March 03, 2022 organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Ravi Campus.
11. One day workshop on “INTELLECTUAL PROPERTY RIGHTS” organized by ORIC University of Veterinary and Animal Sciences, Lahore, Pakistan. Dated: 2<sup>nd</sup> June, 2022 at Veterinary Academy, UVAS
12. One day seminar on “Applications of remote sensing & GIS in life sciences” March 22, 2021 organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Ravi Campus.
13. International webinar: avian conservation: issues and options organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Ravi Campus, August 09, 2021
14. An international seminar on “Plant biodiversity and ecosystem services” organized by Department of Biological Sciences, University of Veterinary & Animal Sciences, Lahore Ravi Campus Pattoki, September 08, 2021
15. One day online seminar on “Aquaculture diseases and health management” organised by Department of Fisheries and Aquaculture, University of Veterinary & Animal Sciences, Lahore Ravi Campus Pattoki, 06 October, 2021
16. One day conference on “International Parasitology Conference-Food safety through parasite control” November 06, 2019, organized by Pakistan Society of Parasitology, University of Veterinary & Animal Sciences, Lahore, Pakistan
17. One day training workshop on “MUSHROOM CULTIVATION TECHNIQUES” November 29, 2019, organized by Department of Biological Sciences, University of Veterinary & Animal Sciences, Lahore Ravi Campus Pattoki
18. One day seminar on “Botanical Garden-Living Laboratories of Research and Recreation” July 12, 2019, organized by Department of Biological Sciences, University of Veterinary & Animal Sciences, Lahore Ravi Campus Pattoki
19. One day training workshop on “BASIC BIOINFORMATICS TOOLS FOR FUNCTIONAL GENOMICS” July 05, 2019, organized by Department of Biological Sciences, University of Veterinary & Animal Sciences, Lahore Ravi Campus Pattoki
20. Two days training workshop on “PATENT DRAFTING” 18<sup>th</sup>-19<sup>th</sup>, June 2019, organized by In Service Training Facility of Advanced Veterinary Education and Professional Development for Veterinary Professional Development in collaboration with Technology and Innovation Support Center (TISC), University of Veterinary & Animal Sciences, Lahore, Pakistan
21. One day Hands-on Training workshop on techniques for Wet and Dry Preservation Methodologies for Museum Specimen, Organized by Department of Wildlife and Ecology, University of Veterinary and Animal Sciences, Ravi Campus held on 06<sup>th</sup> March, 2019.
22. World Wildlife Day, Organized by Jallo Wildlife Breeding Farm, Punjab Wildlife & Parks Department on 3<sup>rd</sup> March, 2019.
23. International Fisheries & Aquaculture Conference-2019, Organized by Department of Fisheries & Aquaculture, University of Veterinary and Animal Sciences, Lahore, January 30-31, 2019.
24. One day training workshop on “Serum Indirect ELISA (Multi-species) for the diagnosis of Brucellosis” February 01, 2018, organized by College of University of Veterinary & Animal Sciences, Jhang
25. “14th National Honeybee Farming and Management Training Workshop” Organized by Department of Zoology, University of the Punjab, Lahore, March 12-16, 2018
26. One day training workshop on “Techniques for Species Conservation and monitoring for Ecosystem Health” April 20, 2018,

- organized by Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki
27. One day International seminar on “Recent Advances in Zoological Sciences” May 10, 2018, organized by Department of Wildlife & Ecology, University of Veterinary & Animal Sciences, Ravi Campus, Pattoki
  28. One day training workshop on “ENDNOTE X7 BASIC” 26<sup>th</sup>, June 2018, organized by Department of Statistics and Computer Science in Collaboration with IT Centre, University of Veterinary & Animal Sciences, Lahore, Pakistan
  29. Three days training workshop on “DUAL USE RESEARCH OF CONCERN (DURC) WORKSHOP” 16-18, July 2018, organized by Health Security Partners, Pakistan
  30. “Bioinformatics tools and Resources” Organized by Institute of Biochemistry and Biotechnology, UVAS, March 29-30, 2017
  31. Certificate of Participation in one day seminar on “World Fisheries Day, 2017” on November, 24<sup>th</sup>, 2017 organized by Department of Fisheries and Aquaculture, University of Veterinary and Animal Sciences, Lahore, Pakistan, under HEC-BC KEP Project.
  32. “**Hand-on Practical Training on Tools Used for Next Generation Sequencing Based Microbiome and Sequencing Data Analysis**” December 14-15, 2016, CRDF-Funded International Collaboration Research Project, Organized by Quality Operations Laboratory (QOL), UVAS, Lahore.
  33. “**Applied Biostatistics**” November 07-08, 2016, organized by Department of Parasitology, University of Veterinary & Animal Sciences, Lahore.
  34. “**In-Service Short Term Training of University Faculty**” August 1-5, 2016, organized by Faculty of Fisheries & Wildlife , University of Veterinary & Animal Sciences, Ravi Campus, Pattoki.
  35. Capacity Building of Young Researchers (from 15<sup>th</sup> to 18<sup>th</sup> June, 2015). Organized by Department of Poultry Production, Faculty of Animal Production and Technology, Ravi Campus, UVAS, Lahore.
  36. Certificate of Participation in “**Biosafety Training Workshop for Young Scientists**” held at Department of Biology, Allama Iqbal Open University, Islamabad, Pakistan 16 January, 2014 by **American Society for Microbiology** (Pakistan).
  37. 6<sup>th</sup> National Training Course on “**Molecular Diagnosis of Animal Diseases**” conducted (October 15-19, 2012) by National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad, Pakistan
  38. Certificate of Participation in One Day Workshop/Training on “**Fluorescent Microscopy: Introduction and Applications**” 24<sup>th</sup> September, 2011, Organized by Department of Microbiology and Molecular Genetics, University of the Punjab Lahore, Pakistan.
  39. Participation and Poster Presentation in the “**3<sup>rd</sup> International Symposium-Cum-Training Course on Molecular Medicine and Drug Research**” January 3-6, 2011, Organized by Dr. Panjwani Center for Molecular Medicine and Drug Research (International Center for Chemical and Biological Sciences), University of Karachi, Pakistan.
  40. Training workshop on **Real-Time PCR** held from June 8-11-2010. the University of Arid Agriculture, Murree Road, Rawalpindi, Pakistan
  41. **Training in Fish Culture held at Fisheries Training Sub-centre Rawalpindi Region at Rawal Town Islamabad, (Duration: one week).**
  42. Certificate of Participation in in one day seminar on “World Fisheries Day, 2015” on November, 24<sup>th</sup>, 2015 organised by Department of Fisheries and Aquaculture, University of Veterinary and Animal Sciences, Lahore, Pakistan, under HEC-BC KEP Project.
  43. Certificate of Participation in “**International Workshop on Biosafety Practices: Need and Necessity**” held at **COMSTECH**, Islamabad, Pakistan 26 to 28 September, 2011.
  44. Participation and Poster Presentation in the “**3<sup>rd</sup> International Symposium-Cum-Training Course on Molecular Medicine and Drug Research**” January 3-6, 2011, Organized by Dr. Panjwani Center for Molecular Medicine and Drug Research (International Center for Chemical and Biological Sciences), University of Karachi, Pakistan.
  45. Participation in **National Biotechnology Exhibition and Seminar** 2010 on 20-21 October, 2010 organized By Institute of Biochemistry and Biotechnology, University of Veterinary and Animal Sciences, Lahore

46. Certificate of merit for outstanding performance in wildlife activity on January, held at **Kund Bear Sanctuary** organized by **WSPA**.
47. **“Artificial Insemination in Sheep”** conducted by Dr. Khalid (Senior Lecturer, Royal veterinary College, London) held in National Agriculture Research Centre. Islamabad.
48. Participated as a delegate at the National seminar on **“Effect of Pollution on Water Quality and Aquatic Life”** held at National Agricultural Research Centre, Islamabad, Pakistan. On 26 – 27<sup>th</sup> June, 2007.

#### **MEMBERSHIP OF SCIENTIFIC SOCIETIES**

Member of **American Society for Microbiology (ASM)**

Member of **International Society for Infectious Diseases (ISID)**

Microbiology Association of Pakistan (MAP)

National Association of Young Scientist (NAYS)

#### **AWARDS/SCHOLARSHIP/FUNDING**

1. **Funding:** For M.Sc. research work from Higher Education Commission (HEC) Pakistan under Assistance to Scientific Instrumentation Programme
2. **Indigenous PhD Fellowship-5000** by HEC Pakistan (M.Phil leading to PhD)
3. **Scholarship:** International Research Support Initiative Program (IRSIP) for Germany by HEC Pakistan

#### **INTERNATIONAL TRAVELING GRANT**

1. **Travel grant received from Higher Education Commission, Pakistan** for Oral Presentation of paper entitled “Molecular Detection of Brucellosis at Human-Animal Interface in Punjab Province, Pakistan” in 12th Malaysia International Genetics Congress (MiGC12), 25 - 27 September 2017, Bangi-Putrajaya Hotel, Selangor, **Malaysia**.
2. Win Grant (US Dollar 12000) from Duke Infectious Diseases & Duke Global Health Institute, Duke University, Durham, NC, USA for three week certificate program **“The Duke One Health Training Program”** at Duke University between May 19, 2016 and June 12, 2016.
3. Win traveling grant from The **Defense Threat Reduction Agency and United States Strategic Command Center for Combating Weapons of Mass Destruction** to attend the “The Middle East and South Asia Conference on Epigenetics and Genomics of Infectious Diseases” in Amman, Jordan from March 7-9, 2016
4. Win traveling grant of **US Dollar 3000** to participation in the 114th **American Society for Microbiology** General Meeting (GM), taken place at the Boston Convention & Exhibition Center located at 415 Summer Street, Boston, Massachusetts, USA, 17–20 May 2014.

#### **Reviewer/Referee**

Reviewed research papers of following journals

1. Animal Biotechnology
2. Asian Pacific Journal of Public Health
3. Biocell
4. Biomedical and Environmental Sciences
5. BMC Infectious Diseases
6. BMC Infectious Diseases of Poverty
7. BMC Public Health
8. BMC Research Note
9. BMC Veterinary Research
10. Brazilian Journal of Biology
11. Current Microbiology
12. Current Pharmaceutical Biotechnology
13. Emerging Health Threats Journal

14. Energy
15. Frontiers in Microbiology
16. Indian Journal of Experimental Biology
17. Infection and Drug Resistance
18. International Journal of Antimicrobial Agents
19. International Journal of General Medicine
20. International Research Journal of Bioengineering and Biomedical Sciences (IRJBBS)
21. Journal of Arid Environment
22. Journal of Microbiology and Infectious Diseases
23. Journal of Parasitology Research
24. Journal of Research in Medical Sciences
25. Parasitology
26. Pathogens
27. PLOS ONE
28. Preventive Veterinary Medicine
29. Reproduction in Domestic Animals
30. Scientific Reports
31. Sustainability
32. Sustainability Energy Technologies and Assessments
33. Tropical animal health and production
34. Veterinary Medicine and Science
35. Veterinary Medicine International
36. Veterinary Quarterly
37. Veterinary World
38. Zoonoses and Public Health