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Teaching and Research:

Activities are focussed towards 1) teaching various undergraduate and postgraduate courses along with 2) veterinary and public health disease diagnostics, optimization and validation of conventional and molecular diagnostics, 3) genetic and pathobiologic characterization of pathogens of veterinary and public health importance, 4) transmission and challenge-protection experiments for pathogens of veterinary and public health importance

Employment History:

- 2014 – Present **Professor**, Institute of Microbiology, UVAS, Lahore.
 2010 – 2014 **Associate Professor**, University of Veterinary and Animal Sciences, Lahore.
 2006 – 2010 **Assistant Professor**, University of Veterinary and Animal Sciences, Lahore.
 1999 - 1999 **Team Member**, Bahawalpur Rural Development Project (BRDP), Bahawalpur.
 1998 - 2006 **Veterinary Officer (H)**, Livestock and Dairy Development Department, Punjab.

Research projects:

- Higher Education Commission of Pakistan. Replacement of low-level antibiotic feeding with extracts of medicinal plants in poultry. Value: **Rs. 2.295 million**, Status: **Ongoing**, Role: **Co-PI**.
- Higher Education Commission of Pakistan. Purification and standardization of mycotoxins extracted from indigenous toxigenic fungi under optimized experimental conditions. Value: **Rs. 3.382 million**, Status: **Ongoing**, Role: **PI**.
- Higher Education Commission of Pakistan. Sero-surveillance, Molecular Characterization and Development of Molecular Diagnostic Technique along with phylogenetic analysis of local isolates of bovine and Human Leptospirosis. Value: **Rs. 16.03 million**, Status: **Ongoing**, Role: **Cooperative Scientist**.
- Punjab Agricultural Research Board. Development of inactivated polyvalent vaccines for the control of mastitis in dairy cattle. Value: **Rs. 10.905 million**, Status: **Ongoing**, Role: **Cooperative Scientist**.
- Punjab Agricultural Research Board. Production of Foot and Mouth Disease (FMD) recombinant vaccine. Value: **Rs. 30.91 million**, Status: **Ongoing**, Role: **Cooperative Scientist**.
- Higher Education Commission of Pakistan. Preparation and evaluation of multivalent vaccine for *Clostridium perfringens* using locally characterized toxinotypes. Value: **Rs. 7.902 million**, Status: **Ongoing**, Role: **PI**.
- Higher Education Commission of Pakistan. The development of highly sensitive novel ELISA kit for quantitative detection of 146S fraction of FMD virus for the quality production and evaluation of FMD vaccine in Pakistan. Value: **Rs. 6.709 million**, Status: **Ongoing**, Role: **Co-PI**.
- Higher Education Commission of Pakistan. Advanced molecular detection of *Toxoplasma gondii*: Genomics based laboratory surveillance and reference diagnosis. Value: **Rs. 3.014386 million**, Status: **Ongoing**, Role: **Co-PI**.
- Higher Education Commission of Pakistan. Genetic diversity among Marek's disease field and vaccine virus to improve prophylaxis. Value: **Rs. 6.251913 million**, Status: **Ongoing**, Role: **Co-PI**.

Brief Academic/Research Summary:

Publications: 160 research manuscripts/reviews with cumulative Impact Factor of 125.4.

Postgraduate students: PhD [Supervised n= 06, Under-supervision n=05] M. Phil [Supervised n=30, Under-supervision n=06]; participated in more than 70 national and international conferences as organizer or invited speaker.

Selected Peer-reviewed Publications:

- Murad S, Ali MA, Rabbani M, **Anjum AA**, Avais M, Yaqub T and Harrar ZF, 2020. Antibiotic resistance pattern of mastitis causing *Escherichia coli* toxinotypes. Pak Vet J. <http://dx.doi.org/10.29261/pakvetj/2019.xxx>.
- Khan M, **Anjum AA**, Nawaz M, Awan AR, Ali MA and Rehman FU, 2020. Effect of *Lactobacillus gallinarum* PL 53 supplementation on xylose absorption and intestinal morphology in broilers challenged with *Campylobacter jejuni*. Pak Vet J. <http://dx.doi.org/10.29261/pakvetj/2020.011>.
- Khan, I, M. Nawaz, **A. A. Anjum**, M. D. Ahmad, A. Mahmood, M. Rabbani, A. Mustafa and M.A. Ali (2020). Effect of Indigenous Probiotics on Gut Morphology and Intestinal Absorption Capacity in Broiler Chicken Challenged with *Salmonella enteritidis* Pak. J. Zool., Pp: 1-7, DOI: <https://dx.doi.org/10.17582/journal.pjz/20190518090547>.
- HM Khan, SM Raza, **AA Anjum**, MA Ali and H Akbar, 2019. Antiviral, embryo toxic and cytotoxic activities of astragalus membranaceus root extracts. Accepted Pak J Pharm Sci. 32(1): 137-142.
- Sana S, **Anjum AA**, Yaqub T, Nasir M, Ali MA and Abbas M, 2019. Molecular approaches for characterization of aflatoxin producing *Aspergillus flavus* isolates from poultry feed. Pak Vet J. <http://dx.doi.org/10.29261/pakvetj/2019.031>.
- Khan M, **Anjum AA**, Nawaz M, Awan AR and Ali MA, 2019. Effect of newly characterized probiotic lactobacilli on weight gain, immunomodulation and gut microbiota of *Campylobacter jejuni* challenged broiler chicken. Pak Vet J. <http://dx.doi.org/10.29261/pakvetj/2019.051>.

7. Khan M, Anjum AA, Nawaz M, Awan AR, Ali MA and Rehman FU, 2019. Effect of *Lactobacillus gallinarum* PL 53 supplementation on xylose absorption and intestinal morphology in broilers challenged with *Campylobacter jejuni*. Pak Vet J. <http://dx.doi.org/10.29261/pakvetj/2019>.
8. Aslam F, Iqbal S, Nasir M, Anjum AA. White Sesame Seed Oil Mitigates Blood Glucose Level, Reduces Oxidative Stress, and Improves Biomarkers of Hepatic and Renal Function in Participants with Type 2 Diabetes Mellitus. 2019. J Am Coll Nutr. 38(3):235-246.
9. Sohail Raza, Kalsoom Siddique, Masood Rabbani, Tahir Yaquba, Aftab Ahmad Anjum, Muhammad Ibrahim, Muhammad Azhar, Farrukh Jamil, Muhammad Asif Rasheed. *In silico* analysis of four structural proteins of aphthovirus serotypes revealed significant B and T cell epitopes. 2019. Microbial pathogenesis: 128: 254-262.
10. Nazar M., M. S. Khan, M. Ijaz, A. A. Anjum, S. Sana, E. M. N. Setyawan, M. I. Saleem and I. Ahmad, 2018. Prevalence of Degnala Disease in bovine along with screening of toxicogenic fungi isolated from contaminated rice straw. J Biolog Reg Homeo Agents 32(2): 269-274.
11. Aqib A. I., A. A. Anjum, M. Ijaz, R. Hussain, R. Ahmed, S. H. Farooqi, H. B. Aslam, K. Hussain, K. Mehmood and H. Zhang, 2018. Development and evaluation of vaccine against *Staphylococcus aureus* recovered from naturally occurring mastitis in she-camels. Microb. Pathogen. 117: 341-347.
12. Ashraf S., A. A. Anjum, A. Ahmad, S. Firyal, S. Sana and A. A. Latif, 2018. In vitro activity of *Nigella sativa* against antibiotic resistant *Salmonella enterica*. Environ. Toxicol. Pharmacol. 58: 54-58.
13. Sana S., A. A. Anjum, M. Nawaz, M. D. Ahmad and M. Rabbani, 2017. Diversity of soil borne starch hydrolyzing fungi of livestock farms. J. Anim. Plant Sci. 27(2): 407-414.
14. Mahmood S, M. Younus, A. Aslam, A. A. Anjum and M. L. Sohail, 2017. Chemical detoxification of AFB1 in experimental quails using Commercially available toxin binders. J. Anim. Plant Sci. 27(4): 1133-1141.
15. Tahir M., M. A. Rasheed, Q. Niaz, M. Ashraf, A. A. Anjum and M. U. Ahmed, 2017. Evaluation of Antibacterial Effect of *Gymnema sylvestre* R.Br. Species Cultivated in Pakistan. Pak Vet J, 37(3): 245-250.
16. Habib I., A. A. Anjum, M. Rabbani, M.U.D. Ahmad, M. A. Ali, M. Nawaz, M. Kamran and H. M. Khan, 2016. Occurrence of antimicrobial resistant bacteria in dogs suffering from enteritis. J. Anim. Plant Sci. 26(1): 13-16.
17. Sharif A., M. Ashraf, A. Javeed, A. A. Anjum, M. F. Akhtar, B. Akhtar and A. Saleem, 2016. Oxidative stress responses in Wistar rats on subacute exposure to pharmaceutical wastewater. Environ Sci Pollut Res. DOI 10.1007/s11356-016-7717-7.
18. Akbar H., M. A. Khan, S. G. Bokhari, M. D. Ahmad, M. Nawaz, A. A. Anjum and H. M. Khan, 2015. Efficacy of medetomidine hydrochloride alone and in combination with ketamine hydrochloride for surgical anesthesia in cats. Pak Vet J, 35(2): 151-154.
19. Akbar H, M A Khan, S G Bokhari, M D Ahmad, H M Khan and A. A. Anjum, 2014. Comparative efficacy of medetomidine HCl and lignocaine HCl as epidural anesthetic in buffalo calves. Pak Vet J, 34(3): 377-380.
20. Firyal S., A. R. Awan, T. Yaqub, A. A. Anjum, M. Asif and M. Tayyab, 2014. Molecular classification of Pakistani domestic pigeon using Cytochrome B Gene. Pak Vet J, 34(2): 254-256.
21. Khan H. M., M. Ashraf, A. S. Hashmi, M. U. D. Ahmad and A. A. Anjum, 2013. Extraction and biochemical characterization of sulphated glycosaminoglycans from chicken keel cartilage. Pak Vet J, 33(4): 471-475.



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