

## MUHAMMAD HASSAN MUSHTAQ

Department of Epidemiology and Public Health  
University of Veterinary and Animal Sciences, Lahore,  
Pakistan.

Professor (Tenured) / Chairman.

Approved Supervisor: Higher Education Commission of Pakistan  
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### PERSONAL INFORMATION

Date of Birth 23-12-1979  
Place of Lahore(Pakistan)  
Nationality Pakistani  
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### ACADEMIC RECORD

University/Board	Degree/ Certificates	CGPA / Marks %	Year	Major Discipline
Nanjing Agricultural University, College of Veterinary Medicine. P. R. China	Ph. D*	86%	2008	Preventive Veterinary Medicine.
University of Veterinary & Animal Sciences, Lahore. Pakistan	M.Sc.** (Hons.)	3.76/4.0	2003	Veterinary Pathology
University of Agriculture Faisalabad, Pakistan. College of Veterinary Sciences	DVM	3.18/4.0	2000	Veterinary Medicine
Federal Board, Higher Secondary School certificate Examination	F.Sc.	71%	1996	Pre-Medical Sciences
Lahore Board, Secondary School Certificate Examination	Matriculation	77%	1994	Basic Sciences

	From	To	Thesis and Dissertation Titles
*	2005	2008	Ph.D. “ <b>Complete genome analysis and identification of highly pathogenic H5N1 influenza A virus from Tiger in China</b> ”. Supervisor: Prof. Dr. Jiang Ping.
**	2000	2003	M. Sc. (Hons) “Effect of type of initial feeding on yolk sac retention in broiler chicks experimentally infected with <i>Escherichia coli</i> ”. Supervisor: Prof. Dr. Zafar Iqbal Chaudhry.



## EMPLOYMENT RECORD:

Position	Institution/ Organization	Duration
Professor/ Chairman	Department of Epidemiology & Public Health, University of Veterinary & Animal Sciences, Lahore, Pakistan	11-11-2020 – to date
Associate Professor	Department of Epidemiology & Public Health, University of Veterinary & Animal Sciences, Lahore, Pakistan	10-11-2016 - 10-11-2020
Assistant Professor	Department of Epidemiology & Public Health, University of Veterinary & Animal Sciences, Lahore, Pakistan	27-07-2010- 09-11-2016
Assistant Professor	National Center of Excellence in Molecular Biology (NCEMB). University of the Punjab, Lahore, Pakistan.	28-05-2009 -to- 28-05-2010
Assistant farm manager/ Laboratory In-charge	Hi Tech poultry breeders/ Hi Tech poultry diagnostic Laboratory, Lahore, Pakistan.	07-07-2004 -to- 25-05-2005
House Job Officer	Artificial Insemination Centre. Rakh Chandra, Lahore.	01-05-2003 -to- 30-06-2003
	Civil Veterinary Hospital, Jallo More, Lahore.	01-02-2003 -to- 30-04-2003
	Veterinary Research Institute, Lahore Cantt.	01-11-2002 -to- 31-01-2003
	Bahadurnagar Livestock Production & Research Institute.	01-08-2002 -to- 31-10-2002

## CURRENT JOB RESPONSIBILITIES / ACTIVITIES

- **Teaching:** Undergraduate, M.Phil and PhD students
- **Supervising; Research** work of M. Phil. and Ph.D. students
- Working in **Research Projects** as Principal investigator (PI)/ Co-PI/ member
- **Curriculum** development of Bachelor/MPhil/PhD
- Served as **officer in-charge** of department's proposed program titled "**Diploma in Public Health**"
- Supervised team work in developing curriculum for MPhil in "**ONE HEALTH**"
- **Examiner** of PhD and **external examiner** for National Center of Virology and



Immunology, NUST, Islamabad, and National Center of Excellence in Molecular Biology(NCEMB), Lahore, Pakistan

- **External Examiner** of M.Sc. (Hons.) Agriculture (Food Science & Technology) for Institute Of Agricultural Sciences, University of the Punjab (PU), Lahore, Pakistan
- **Working as member of Synopsis Scrutiny Committee (previously worked as secretary)**, Faculty of Vet. Science
- **Worked as Chairman, Secretary and Member of Board of studies** of the department of Epidemiology and Public Health
- **Member of Faculty Board of Studies** of the Faculty of Veterinary Science
- **Member of International accreditation of UVAS DVM Degree Program**
- Member of **Purchase and inspection committee** of the department of Epidemiology and Public Health
- Member **of Research Incentives Committee** of the department ORIC.
- Participate and arrange professional **trainings/workshops** for professionals.
- **Reviewer** of international SCI listed Impact factor journals.
- **Reviewer** of BMC Infectious Diseases, Future Virology..
- **Reviewer** on official panel of Higher Education Commission, Pakistan to review research proposals
- **Convener** of assessment team for BS(Hons.) Medical Laboratory Technology
- Member of **committee to develop the policy for conflict of interest**
- Member **scrutinize the applications advance increments at the time of initial appointment and promotion of TTS faculty**
- Member **Project Expert Committee**
- Worked for six years as **Focal person of Quality Enhancement Cell (QEC)** for the Model Department of Faculty of Veterinary Science, UVAS, Lahore. Responsibilities include preparation of documentations for Self-Assessment Reports (SAR) for undergraduate and postgraduate degree programs, evaluator of SARs of different departments.
- Member **Anti-bullying & Anti-Abuse Committee**, UVAS, Lahore.



- Member of **Anti-Drug & Tobacco Committee (ADTC) of the UVAS**, Lahore (Main Campus)
- Member as **Synopsis Scrutiny Committee** (FVS)
- Member as **Panel of Examiners for presentations and viva voice examination (Online) of DVM**
- Member as **Advanced Studies & Research Board UVAS**, Lahore
- Member as **Board of Trustees of Endowment fund of UVAS**, Lahore
- Member as **Research Incentives Committee**
- Member as **Self-Assessment Process Committee of the DVM Program**
- Member as **Lumpy Skin Disease committee**
- Convener as **Assessment Team for BS(Hons) Medical Laboratory Technology Program**
- Member as **Acknowledge ceremony, UVAS Flood Relief Activities- 2022**
- Member as **Finance and Planning committee**
- Member/External as committee for **analysis of M.Phil & MBA Degree Program (Evening)**
- Member as **Departmental Doctoral Program Committee (DDPC)** of the department of Food Sciences, University of the Punjab.
- Member as **Institutional sexual harassment committee**
- Convener of **PhD Synopsis Security Committee**



## PUBLISHED RESEARCH ARTICLES:

Sr. #	Title	Authors	Reference	Year
1.	Molecular Characterization and Selection of Indigenous SARS-CoV-2 Delta Variant for the Development of the First Inactivated SARS-CoV-2 Vaccine of Pakistan.	M.W.Aziz, N. Mukhtar, A.A. Anjum, M.H.Mushtaq, M.F.Shahid, M.Ali, M.A.B. Shabbir , M.A. Ali, M. Nawaz and T.Yaqub	Vaccines 2023, 11, 607. <a href="https://doi.org/10.3390/vaccines11030607">https://doi.org/10.3390/vaccines11030607</a>	2023
2.	Foot and Mouth Disease (FMD) epidemiology in small ruminants by identifying antibodies for non-structural and structural proteins with a sequential screening approach: A cross-sectional study	M.S. Khaliq, M. Sarwar, F. N. Awan, H. Sadia, A. Saleem, S.A. Khaliq, M.H. Mushtaq, M. Chaudhry, A. Rehman	Small Ruminant Research, 2023, 107173, <a href="https://doi.org/10.1016/j.smallrumres.2023.107173">https://doi.org/10.1016/j.smallrumres.2023.107173</a> (Impact Factor 1.893)	2023
3.	Epidemiological investigation of norovirus infections in Punjab, Pakistan, through the <b>One Health</b> approach	A. Yasir, Y. Mahmood, M. A. Yaqoob, U.R. Zia, C. Munoz-Zanzi, M. M. Alam, M.A. Warraich and M.H. Mushtaq.	Frontiers in Public Health 10.3389/fpubh.2023.1065105	2023
4.	The Therapeutic Effects of Autologous Platelet-Rich Plasma Gel on Cutaneous Wound Healing in Rescued Horses The Effects of Autologous Platelet-Rich Plasma Gel on skin Wound Healing in Horses	M.T. Sajjad, H. Akbar, M.A. Khan, M.H. Mushtaq, S.G. Bokhari, M.A. Hayat, G. Mustafa	Journal of the Hellenic Veterinary Medical Society 74 (1): 5411-5420	2023
5.	Assessment of aflatoxin M1 exposure and associated determinants in children from Lahore, Pakistan.	Ashraf W, Rehman A, Ahmad M-D, Rabbani M, Mushtaq MH, Aamir K, Akhtar F, and Wang J-S.	Food Addit Contam Part A, 1–13. 10.1080/19440049.2022.2138559	2022
6.	Household COVID-19 secondary attack rate and associated determinants in Pakistan; A retrospective cohort study.	A. Khan, <b>M.H. Mushtaq</b> , J. Muhammad, A. Sule, A. Akbar, K. Junaid, A.A. Khan, T. A. Khan, U. Khan, F. Waqar, A. Khan, M. A. Warraich, A. Kabbar, A. A. Mutair, S. Alhumaid, M. A. Mozaini, K. Dhama, M. F. Khan, A.A. Rabaan.	PLoS ONE 17(4):e0266277. <b>(Impact Factor-3.752)</b>	2022



7.	Association of dietary factors with plasma homocysteine and coronary heart disease outcome.	Muzaffar, R., M. A. Khan, <b>M.H. Mushtaq</b> , M. Nasir, M. Chaudhry, M. F. Khan, A. Khan.	Nutrition clinique et metaboloisme 36(2022)106-111. <b>(Impact Factor- 0.704)</b>	2022
8.	Outbreak investigation and identification of risk factors associated with the occurrence of foot and mouth disease in Punjab, Pakistan.	Ali, I., Rehman, A., <b>Mushtaq, M.H.</b> , Ijaz, M., Khaliq, M.S., Saad, M., Khan, U., Khalid, S., Masud, A., Abbas, A., Parveen, S., Saman, A., Sauter-Louis, C., Conraths, F.J.	Preventive Veterinary Medicine 202 (2022) 1056613. <b>(Impact Factor- 3.372)</b>	2022
9.	Assessment of aflatoxin B1-lysine adduct in children and its effect on child growth in Lahore, Pakistan.	Ashraf, W., Rehman, A., Ahmad, M.- D., Rabbani, M., <b>Mushtaq, M.H.</b> , Aamir, K., Xue, K.S., Wang, J.-S.	Food Additives & Contaminants: Part A <b>(Impact Factor- 3.549)</b>	2022
10.	Serological Evidence of Bovine Herpes Virus-1 in Goats in Lahore, Pakistan.	Danial, A., S. Azeem, S. Raza, and <b>M.H. Mushtaq</b> .	Pakistan Journal of zoology. 1-3, 2022. <b>(Impact Factor- 0.687)</b>	2022
11.	Evaluation of Antimicrobial activity of organic acids against <i>Campylobacter jejuni</i> in Broilers.	Ghazanfar. F., M. Rabbani. A. Ghafoor and <b>M.H. Mushtaq</b> .	Pakistan journal of zoology. pp 1-6, 2022. <b>(Impact Factor- 0.687)</b>	2022
12.	Autologous Platelets-Rich Plasma Gel Promotes Neo-Vascularization and Re-Epithelization in Cutaneous Wound Healing in Rescued Horses.	Sajjad., M. T, H. Akbar, M. A. Khan, <b>M. H. Mushtaq</b> , S. G. Bokhari, M. A. Hayat and G. Mustafa.	Pakistan journal of zoology. pp 1-8, 2022. <b>(Impact Factor- 0.687)</b>	2022
13.	The effect of autologous and homologous platelets-Rich Plasma Gel on Cutaneous Wound Healing in rescued Donkeys: A Comparative Study.	Sajjad M.T, A. Hamid, H. M. Abid, K.M. Arif, <b>M.H. Mushtaq</b> , Bokhari S. Gul and M. Ghulam.	Egyptian Journal of Veterinary Sciences. 53(4). Pp. 529-539 (2022).	2022
14.	Global epidemiology of Equine Influenza viruses; “A possible emerging <b>zoonotic</b> threat in future” an extensive systematic review with evidence.	A. Khan, <b>M. H. Mushtaq</b> , J. Muhammad, B. Ahmed, E. A. Khan, A. Khan, S. A. Zakki, E. Altaf, I. ul Haq, A. Saleem, M. A. Warraich, N. Ahmed, A. A. Rabaani.	Brazilian Journal of Biology, 83, e246591 <b>(Impact Factor- 1.651)</b>	2021
15.	Risk factors for outbreaks caused by variant strain of Newcastle disease on	R. Maqsood, A. Khan, <b>M. H. Mushtaq</b> , T. Yaqub, M.A. Aslam, H. B. Rasid, S.S.	Polish Journal of Veterinary sciences. 24(4),	2021



	environmentally controlled broiler chicken farms in Lahore, Pakistan.	Gill, R. Akram, A. Rehman, M. Chaudhry.	497-503 <b>(Impact Factor – 0.821)</b>	
16.	Hyperhomocysteinemia as an Independent Risk Factor for Coronary Heart Disease. Comparison with Conventional Risk Factors	R. Muzaffara, M. A. Khan, <b>M. H. Mushtaq</b> , M. Nasir, A. Khan, I. ul Haq and J. Muhammad.	Brazilian Journal of Biology,83, e249104 <b>(Impact Factor- 1.651)</b>	2021
17.	Phenotypic Antimicrobial Resistant patterns in Salmonella typhimurium and Enteritidis Strains isolated from Human, food, and environmental samples of broiler meat production chain in Punjab.	S. Sadiq, M.U.D Ahmad, M. Chaudhry, H. Akbar, <b>M.H. Mushtaq</b> , J. Sadiq and S. Hasan.	International Journal Agriculture & Biology. 26:263-269. <b>(Impact Factor- 0.802).</b>	2021
18.	Active surveillance and risk assessment of Avian influenza virus subtypes H9 from Non-vaccinated commercial broilers of Pakistan.	Hasni MS, Chaudhry M, <b>Mushtaq MH</b> , Durrani AZ, Rashid HB, Ali M, Ahmed M, Sattar H, Aqib A, Zhang H.	Brazilian journal of Poultry Sciences. 23(3): 001-008. <b>(Impact Factor - 0.826)</b>	2021
19.	Epi-Gene: An R-Package for Easy Pan-Genome Analysis	Furqan Awan , Muhammad Muddassir Ali, Muhammad Hamid , Muhammad Huzair Awan, <b>Muhammad Hassan Mushtaq</b> , Saeeda Kalsoom, Muhammad Ijaz, Khalid Mehmood and Yongjie Liu	BioMed Research International Volume 2021, Article ID 5585586 <b>(Impact Factor - 3.411)</b>	2021
20.	Cutaneous Leishmaniasis in Pakistan: a neglected disease needing <b>one health</b> strategy	Kayani B., S.Sadiq, H.B. Rashid, N. Ahmed, A. Mahmood, M.S.Khaliq, R.Maqsood, H.Rashid, S.Hasan, <b>M.H. Mushtaq</b> , U.R. Zia and M. Chaudhry	BMC Infectious Diseases (2021) 21:622 <b>(Impact Factor- 2.565)</b>	2021
21.	Evaluation of Immunomodulatory effects of lomefloxacin in mice	Arfa Majeed, Aqeel Javeed , Muhammad Ovais Omer, <b>Muhammad Hassan Mushtaq</b> , Adeel Sattar	Brazilian Journal of Pharmaceutical Science, <b>(Impact Factor -1.214)</b> DOI: <a href="http://dx.doi.org/10.1590/s2175-97902019000418669">http://dx.doi.org/10.1590/s2175-97902019000418669</a>	2021
22.	Molecular epidemiology and genotype distribution of hepatitis C in Pakistan; a	Amjad Khan, Abdul Nadir, <b>Muhammad Hassan Mushtaq</b> , Khunsa Junaid,	Infection, Genetics and Evolution 84-	2020



	multicenter cross-sectional study	Aabish Mehreen Khan, Hassan Ali, Fatmee Waqar, Taimoor Akram Khan, Ali Akram Khan	104372 <b>(Impact Factor- 2.611)</b>	
23.	Incidence of Animal-Bite Injuries Registered in Public Hospitals of Post-Conflict Swat District, Pakistan in 2014.	Munibullah, Habibullah, Hamad Bin Rashid, <b>Muhammad Hassan Mushtaq</b> , Shakera Sadiq, Saima Hasan and Mamoon Chaudhry	The American Journal of Tropical Medicine and Hygiene 104(1), pp. 329–337, 2020( <b>Impact Factor- 2.453</b> )	2020
24.	Iron and prebiotic fortified flour improves the immune function of iron deficient women of childbearing age.	Abdul Momin Rizwan Ahmad, Waqas Ahmed, Sanaullah Iqbal, <b>Muhammad Hassan Mushtaq</b> , Riffat Aysha Anis.	Pakistan Journal of Pharmaceutical Sciences. 2020 Jan; 33(1) (Supplementary): 253-261. ( <b>Impact Factor- 1.103</b> )	2020
25.	Molecular evidence and hematological alterations associated with the occurrence of coronavirus in domestic dogs in Pakistan.	Sulehria, M.U, Ahmad S.S, Ijaz, M., <b>Mushtaq M.H.</b> , Khan, A.Y. and Ghaffar, A.	Tropical Biomedicine 37(4: 963-972, 2020. ( <b>Impact Factor = 0.509</b> )	2020
26.	Anti-oxidative effect of L-lysine on post thaw quality of Nili-Ravi buffalo bull semen (bubalus bubalis)	A. Ahmed, M. Ayaz, D. H. Mughal, A. Rehman, <b>M. H. Mushtaq</b> , M. S. Yousaf, B. U. Din and A. Riaz	J. Anim. Plant Sci., 30(3): Page: 612-618 ( <b>Impact Factor- 0.529</b> )	2020
27.	Seroepidemiology of HBV and HCV at Tertiary Care Center Lahore, Pakistan: An Analytical Cross Sectional Study	Amjad Khan, Saira Afzal, Rana Muhammad Ayub, <b>Muhammad Hassan Mushtaq</b> , Khunsa Junaid, Hassan Ali, Taimoor Ali Khan, Muhammad Daood	Annals of KEMU 26 (1) p 46-52. HEC Recognized “Y” category	2020
28.	Effect of plasma progesterone on oocyte recovery, oocyte quality, and early in-vitro developmental competence of embryos in Bos indicus dairy cows	Muhammad Saad, Zaeem Sarwar, Muhammad Saleem, Usman Arshad, Muhammad Shahzad, <b>Muhammad Hassan Mushtaq</b> , Ali Husnain, Amjad Riza and Nasim Ahmad	Animal Reproduction science 202, 80-86 ( <b>Impact Factor- 1.647</b> )	2019
29.	Immune modulatory and anti-oxidative effect of selenium against pulmonary tuberculosis	Muhammad Imran Hussain, Waqas Ahmed, Muhammad Nasir, <b>Muhammad Hassan Mushtaq</b> , Ali Ahmad Sheikh, Arfat Yousaf, Shahbaz Ali and Sanaullah	Pak. J. Pharm. Sci., Vol.32, No.2(Suppl), March 2019, pp.779-784 ( <b>Impact Factor-</b>	2019



		Iqbal	<b>0.804)</b>	
30.	Immune boosting role of vitamin E against pulmonary tuberculosis	Muhammad Imran Hussain, Waqas Ahmed, Muhammad Nasir, <b>Muhammad Hassan Mushtaq</b> , Ali Ahmad Sheikh, Arfat Yousaf Shaheen, and Arshraf Mahmood.	Pakistan Journal Pharm. Science. Vol. 32, No.1(Suppl.), 269-276, 2019 ( <b>Impact Factor- 0.596</b> )	2019
31.	Synergistic effect of galacto oligosaccharides and iron fortificants on serum iron, ferritin, transferrin and total iron binding capacity levels in anemic rats.	Abdul Momin Rizwan Ahmad, Waqas Ahmed, Sanaullah Iqbal, <b>Muhammad Hassan Mushtaq</b> and Riffat Aysha Anis.	Pakistan Journal Pharm. Science. Vol. 32, No.5(Suppl.), 2205-2213, 2019 ( <b>Impact Factor- 0.596</b> )	2019
32.	Correlation between homocysteine and lipid levels in Patients with ischemic heart disease	R.Muzaffar, M.A.Khan, Muhammad Zahid Latif, <b>Muhammad Hassan Mushtaq</b> and M.Nasir	Pak Heart J 2019 Vol. 52 (02) : 144 – 148 (HEC approved journal X category)	2019
33.	In Vitro Susceptibility Testing of Different Antimycotics and Disinfectants against <i>Microsporum canis</i> Isolated from Clinical Cases of Feline Dermatophytosis	Khizar Matloob, Asim Khalid Mahmood, Uzma Farid Durrani, Muhammad Hassan Mushtaq, Rashid Hussain, Raheela Akhtar, Muhammad Anees	Indian J. Anim. Res. DOI: 10.18805/ijar.B-1154	2019
34.	Influence of Nitrogen Fertilizer on Nitrate Contents of Plants: A prospective Aspect of Nitrate Poisoning in Dairy Animal	G. Rashid, M. Avais, S.S. Ahmad, <b>M.H. Mushtaq</b> , R. Ahmed, M. Ali, M. Naveed-ul-Haque, M. Ahmad, M.A. Khan and N.U. Khan.	Pakistan journal zoology, 51(1), 249-255. ( <b>Impact Factor- 0.547</b> )	2019
35.	Comparative efficacy of different antidotes against experimental nitrate intoxication in rabbits	G.Rashid, M.Avais, S.S. Ahmad, <b>M.H.Mushtaq</b> , M. Adil, A.I.Aqib, M.Ali, M.S. Hasni, M.Asif, Y.F.Chang, and M.A.Jamal.	Journal of Exotic Pet Medicine 28(2019), 82-89 ( <b>Impact Factor- 0.582</b> )	2019
36.	A short report on epidemiological investigation of dog bite cases in association with temperature rise as a part of climate change	Touseef Ahmad, Muhammad Waqas Asghar, Saba Khalid, Muhammad Hassan Mushtaq	Advancements in Life Sciences 6(3), 106-109 (HEC Recognized Y category)	2019
37.	Investigating the epidemiology of equine	Amjad khan, <b>Muhammad Hassan Mushtaq</b> , Mansur	Preventive Veterinary	2018



	influenza spread in the Province of Khyber Pakhtunkhwa of Pakistan in 2015-16.	Ud Din Ahmad, Jawad Nazir, Zahida Fatima, Asghar Khan and Shahid Hussain Farooqi.	Medicine 149 (2018) 132–138. <b>(Impact Factor-1.987)</b>	
38.	Comparative genome analysis provides deep insights into Aeromonas hydrophila taxonomy and virulence- related factors	Awan F, Dong Y, Wang N, <b>Mushtaq MH</b> , Lu C and Liu Y.	BMC Genomics (2018) 19:712. <b>(Impact Factor-3.730)</b>	2018
39.	Awareness Level and Biosecurity Compliance of Equine Farmers and Owners Regarding Equine Influenza in Khyber Pakhtunkhwa, Pakistan	Amjad Khan, <b>Muhammad Hassan Mushtaq</b> , Mansur Ud Din Ahmad, Jawad Nazir, Shahid Hussain Farooqi, Asghar Khan	The J. Anim. Plant Sci. 28(2):2018. <b>(Impact Factor-0.381)</b>	2018
40.	Occurrence of Campylobacter in retail meat in Lahore, Pakistan	M.Nisar, M.D. Ahmad, <b>M.H. Mushtaq</b> , W.Shehzad, A.Hussain, M. Nasar, K.V. Nagaraja, Sagar M. Goyal.	Acta Tropica 185 (2018) 42–45. <b>(Impact Factor-2.218)</b>	2018
41.	Prevalence of Overall and Teatwise Mastitis and Effect of Herd Size in Dairy Buffaloes Pakistan	A.Hussain, M.D. Ahmad, <b>M.H.Mushtaq</b> , M. Chaudhry, M.S.Khan, M.Reichel, T. Hussain, A.Khan, M.Nisar and I.A.Khan.	Pakistan Journal of . Zoology, vol. 50(3), pp 1107-1112. <b>(Impact Factor-0.547)</b>	2018
42.	Identification of Bacteria from Diarrheic foals in Punjab, Pakistan.	Ikramul Haq, Aneela Zameer Durrani, Muhammad Sarwar Khan, <b>Muhammad Hassan Mushtaq</b> , Imtiaz Ahmad, Amjad Khan and M.Ali.	Pakistan Journal of Zoology, vol. 50(2): pp 1-4. <b>(Impact Factor-0.547)</b>	2018
43.	Molecular Epidemiology of the two internal genes of equine influenza H3N8 virus isolated in Pakistan 2015-16.	A. Khan, <b>M.H.Mushtaq</b> , Mansur Ud Din Ahmad, J. Nazir, Z. Fatima, A.Khan and S.H. Farooqi.	Pakistan Veterinary Journal, 38(1): 96-100 <b>(IF: 0.813)</b>	2018
44.	A Global overview on Bovine Para-tuberculosis: A Review article.	Amjad Khan, <b>Muhammad Hassan Mushtaq</b> , Mansur Ud Din Ahmad, Zahida Fatima, Shahid Hussain Farooqi, Asghar Khan	Veterinaria, 4(1):14-20	2018
45.	The equine influenza outbreak in Pakistan 2016: Seroprevalence and Geo-temporal epidemiology of a large propagating outbreak.	Amjad Khan, <b>Muhammad Hassan Mushtaq</b> , Mansur Ud Din Ahmad, Jawad Nazir, Zahida Fatima, Shahid Hussain Farooqi, Asghar Khan.	Pakistan Journal of Zoology. Vol 50(2): pp 453-461 <b>(Impact Factor-0.547)</b>	2018



46.	Investigating the epidemiology of equine influenza spread in the Province of Khyber Pakhtunkhwa of Pakistan in 2015-16.	Amjad Khan, <b>Muhammad Hassan Mushtaq</b> , Mansur Ud Din Ahmad, Jawad Nazir, Zahida Fatima, Shahid Hussain Farooqi, Asghar Khan	Preventive Veterinary Medicine (149 (2018) 132–139) (Impact Factor: 1.98)	2017
47.	Molecular Epidemiology of a novel re-assorted epidemic strain of equine influenza virus in Pakistan in 2015-16.	Amjad Khan, <b>Muhammad Hassan Mushtaq</b> , Mansur Ud Din Ahmad, Jawad Nazir, Shahid Hussain Farooqi, Asghar Khan.	Virus Research. 240 (2017) 56–63. ( <b>Impact factor 2.68</b> )	2017
48.	Seasonal Trends in Seroprevalence of FMD in Bovines under Different Environmental Conditions in Rural KPK, Pakistan.	Amjad khan, <b>Muhammad Hassan Mushtaq</b> , Mansur ud din Ahmad, Abid Hussain, Asghar Khan, Zahida Fatima and Zubair.	Pakistan veterinary Journal. ISSN 2074-7764. ( <b>Impact Factor- 1.217</b> )	2017
49.	A retrospective study on canine parvovirus in Lahore, Pakistan.	Amjad khan, <b>Muhammad Hassan Mushtaq</b> , Mansur ud din Ahmad, Ijaz Ahmad, Shahid Hussain Farrozi and Asghar Khan.	Pakistan Journal of Zoology. vol. 49(0), pp 1-4, 2017. ( <b>Impact Factor- 0.547</b> )	2017
50.	The temporal and spatial distribution of infectious diseases in bovines in Khyber Pakhtunkhwa, Pakistan.	Amjad khan, <b>Muhammad Hassan Mushtaq</b> , Mansur ud din Ahmad, Zahida Fatima, Shahid Hussain Farooqi5 and Asghar Khan.	Annals of life sciences journal 2017; 1:1.	2017
51.	Incidence of Repeat Breeding in Cattle and Buffaloes of Pakistan. 2016.	Muhammad Athar Khan, <b>Muhammad Hassan Mushtaq</b> , Munibullah, Amjad Khan, Naseer Ahmad, Mudussar Nawaz.	Journal of Veterinaria.   Volume 4   Issue 1   pages 18-20.	2017
52.	A study on causes of pathogenic diarrhea in foals in Punjab Pakistan.	Ikramul Haq, Aneela Zameer Durrani, Muhammad Sarwar Khan, <b>Muhammad Hassan Mushtaq</b> and Imtiaz Ahmad.	Journal of equine veterinary sciences. (56). PP. 88-92. ( <b>Impact Factor 0.882</b> )	2017
53.	Study of Antimicrobial resistance and physiological biomarkers with special reference to Salmonellosis in Diarrheic Foals in Punjab, Pakistan.	Ikramul Haq, Aneela Zameer Durrani, Muhammad Sarwar Khan, <b>Muhammad Hassan Mushtaq</b> and Imtiaz Ahmad.	Acta Tropica. (176). Pp. 144-149. ( <b>Impact Factor- 2.218</b> )	2017
54.	KAP Survey in mothers	Sadia Ashraf, Mansur ud	American Journal of	2017



	towards infant Care and Feeding in Pakistan	Din Ahmed, <b>Muhammad Hassan Mushtaq</b> , Gurdeep Singh and Amjad Khan	Epidemiology and Public Health;1(1): 001-007	
55.	Retrospective study on highly pathogenic avian influenza H5N1 outbreakss during 2006-2008 in ICT Pakistan.	Zahida Fatima, M. Athar Khan, K. Naeem, M. U. D. Ahmad, K. Muhammad, <b>H. Mushtaq</b> , Z. Anwar, A. Khan and Luqman.	JAPS, 27(1) . 2017. <b>(Impact Factor- 0.381)</b>	2017
56.	Prevalence and antimicrobial resistance patterns of Campylobacter spp. isolated from retail meat in Lahore, Pakistan	Muhammad Nisar, Mansur udDin Ahmad, <b>Muhammad Hassan Mushtaq</b> , Wasim Shehzad, Abid Hussain, Javed Muhammad, Kakambi V. Nagaraja, Sagar M. Goyal	Food Control 80, 327-332 <b>(Impact Factor: 3.667)</b>	2017
57.	<b>Zoonotic</b> tuberculosis in occupationally exposed groups in Pakistan	Irfan Khattak, <b>Muhammad Hassan Mushtaq</b> , Mansur ud Din Ahmad, Muhammad Sarwar Khan and Jamila Haider	Occupational Medicine 66( 5), 371–376 <b>(Impact Factor: 1.482)</b>	2016
58.	Diabetes mellitus among tuberculosis patients: a cross sectional study from Pakistan	Zarfishan Tahir, Mansur-ud-Din, Abdul Majeed Akhtar, Tahir Yaqoob, <b>Hassan Mushtaq</b> , Hasnain Javed	African Health Sciences. 16(3), 671-676 <b>(Impact Factor: 0.666)</b>	2016
59.	Incidence of repeat breeding in varying breeds of buffaloes and cattle in different climatic conditions in Khyber Pakhtunkhwa (Pakistan).	Amjad Khan, <b>Muhammad Hassan Mushtaq</b> , Mansur-ud-Din Ahmad, Abid Hussain, Asghar Khan, Ajab Khan and Habibun Nabi.	Buffalo Bulletin 35(3), 445-454 <i>Published Online</i> <b>(Impact Factor: 0.067)</b>	2016
60.	Identification of Risk Factors for Canine Transmissible Venereal Tumour (CTVT) in Owned Dogs in Pakistan	Furqan Awan, Muhammad Muddassir Ali, <b>Muhammad Hassan Mushtaq</b> , Muhammad Ijaz, Mamoona Chaudhry, Abdullah Awan	Kafkas. Univ. Vet. Fak. Derg. DOI: 10.9775/kvfd.2016.16507 <b>(Impact Factor: 0.418)</b>	2016
61.	Risk factors associated with <i>Mycobacterium bovis</i> skin positivity in cattle and buffalo in Peshawar, Pakistan	Irfan Khattak, <b>Muhammad Hassan Mushtaq</b> , Mansur-ud-Din Ahmad, Muhammad Sarwar Khan, Mamoona Chaudhry, Umer Sidique	Tropical Animal Health and Production, 48(3), 479-485 <b>(Impact Factor: 0.817 )</b>	2016
62.	Molecular characterization of Coagulase genes of <i>Staphylococcus aureus</i> isolated from mastitic river	A. Hussain, M. D.Ahmed , <b>M. H. Mushtaq</b> , M. S. Khan , M. P. Reichel , T. Hussain , A. Khan and M.	Journal of Animal and Plant Sciences, Volume: 26, No. 2 page	2016



	buffaloes	Nisar	408-414. <b>(Impact Factor: 0.448)</b>	
63.	Surveillance of brucellosis in livestock in rural communities of Punjab (Pakistan)	Ghazala Nawaz, Muhammad Nawaz Malik, <b>Muhammad Hassan Mushtaq</b> , Fraz Munir Ahmad, Ali Abdullah Shah, Farooq Iqbal, Shinawar Waseem Ali, Zahida Fatima and Amjad Khan.	Pakistan Journal of Agricultural Research. Oct-Dec2016, Vol. 29 Issue 4, p392-398.	2016
64.	Microbiological analysis of different snack foods as public health significance	Muhammad Rizwan SaifUllah, Khawar Mehboob, Mansur-ud-Din Ahmad, Rehan Rafique, <b>Muhammad Hassan Mushtaq</b> , Fozia Sharif, Shahida Parveen	Infectious Diseases Journal., 24(1), 776-780	2015
65.	A matched case-control study to identify potential risk factors of dengue fever among residents of a local university, Lahore.	Chaudhry M., Ahmad S., Nisar M., Rashid H.B., <b>Mushtaq M.H.</b> , Ijaz T., Chaudhry H.R., Raashed M.	Annals KEMU. 21(3):173-177	2015
66.	Prevalence of clinical mastitis in bovines in different climatic conditions in KPK, (Pakistan)	Amjad Khan, <b>Muhammad Hassan Mushtaq</b> , Mansur Ud Din Ahmad, Mamoon Chaudhry and Abdul Wali Khan	Sci.Int.,27(3), 2289-2293	2015
67.	Descriptive Epidemiology and Seasonal Variation in Prevalence of Milk Fever in KPK (Pakistan)	Amjad Khan, <b>Muhammad Hassan Mushtaq</b> , Abdul Wali Khan, Mamoon Chaudhry and Abid Hussain	Global Veterinaria 14 (4): 472-477 <b>(Impact Factor: 0.41)</b>	2015
68.	Development an indirect ELISA based on truncated S protein of porcine epidemic diarrhea virus	Li Yufeng, Zheng Fangyuan, Fan Baochao, <b>Muhammad Hassan Mushtaq</b> , Zou Yao, Jiang Ping.	Canadian Journal of Microbiology. 61(11):811-7 <b>(Impact Factor 1.221)</b>	2015
69.	Prevalence of Brucellosis among camels in district Muzaffargarh Pakistan	Sami Ullah, Tariq Jamil, <b>Muhammad Hassan Mushtaq</b> , Muhammad Hassan Saleem	J. Inf. Mol. Biol 3(2): 52-56 <b>(Impact Factor: 0.365)</b>	2015
70.	Some challenges in progressive control of livestock originated <b>zoonotic</b> diseases in	Furqan Awan, Muhammad Muddassir, Ali Umair Iqbal, Irfan Khattak, <b>Muhammad</b>	Asian Pac. J. Trop. Biomed. 4(10): 821-824 <b>(Impact Factor:</b>	2014



	Pakistan—a pilot survey	<b>Hassan Mushtaq</b>	<b>1.634)</b>	
71.	A review on prevalence of Osteoporosis in developing countries	<b>Muhammad Hassan Mushtaq</b> , Ayesha Saeed, Mansur ud Din Ahmad, Aqeel Javeed, Irfan Khattak and Amjad Riaz	Sci.Int, 26(5), 2315-2321	2014
72.	A Case Control Study for the Identification of Novel Risk Factors Associated with Hepatitis C Viral Infection in Population of Lahore Pakistan	Bilal Munir Ahmad, Nuzhat Navid, Tayyaba Ijaz, <b>Muhammad Hassan Mushtaq</b> , Abdul Majeed Akhter, Jalees Khalid Khan, Mamoon Chaudhry, Azmat Khadija	Pakistan Journal of Medical and Health Sciences, Vol. 8 (3): 518-522 <b>(Impact Factor:0.02)</b>	2014
73.	Mass vaccination and surveillance reduced the burden of Foot and Mouth Disease in two districts of Khyber Pakhtunkhwa Province, Pakistan.	<b>Muhammad Hassan Mushtaq</b> , Irfan Khattak, Nisarul Haq, Furqan Awan	Veterinaria 2(2): 1- 5	2014
74.	Identification of <i>Mycoplasma Suis</i> MSG1 interaction proteins on porcine erythrocytes.	Yaning Zhang, Yao Zou, Peipei Ma, <b>Hassan Mushtaq Muhammad</b> , Yufen Li, Ping Jiang	Archives of Microbiol. 197(2):277-83 <b>(Impact Factor 1.861)</b>	2014
75.	Clinico-epidemiology of Shigellosis in children suffering from diarrhea in district Lahore, Pakistan.	Muhammad Nisar, Mansur-d Din Ahmed, <b>Muhammad Hassan Mushtaq</b> , Shahzad Akbar Khan, Abid Hussain, Muhammad Asad Ali, Messam Abbas, Habib- un Nabi, Muhamd Mohsin Khan, and Muhmmad Tehseen	Int. J. Cur. Micobl. App. Sci. 3(2):950-957	2014
76.	Exploring Arabian markets for Pakistani Halal meat-Futuristic Vision.	Rana Muhammad Ayyub, <b>Muhammad Hassan Mushtaq</b> , Muhammad Bilal, Tahir Mehmood, ,Shehzad Ahmad, Adeela Rana, Muhammad Bilal Sohail and Muhammad Waqas Khan	Sci.Int., 26(3): 1209-1214	2014
77.	A study of consumer behaviour regarding quail meat product development and marketing.	Rana Muhammad Ayyub, <b>Muhammad Hassan Mushtaq</b> , Muhammad Bilal and	Sci.Int., 6(2), 871-874	2014



		Muhammad Rameez Akram.		
78.	A Cross Sectional Study On Self-Medication With Analgesics Among Pharmacy Students of Lahore, Pakistan.	Sadia Amin, Farah Abid, Aqeel Javeed, Muhammad Ashraf, Amjad Riaz, <b>Muhammad Hassan Mushtaq</b> , Aamir Ghafoor, Muhammad Anees, Muhammad Yaqoob	Sci.Int.,26(3), 1181- 1185	2014
79.	Phosphorylation of the P65 Subunit of Nuclear Factor Kappa B (Nf-Kb) by using a Chemical Selected from Indian plant anticancer compounds database.	Sher Muhammad Zaman, Aqeel Javeed, Aamir Ghafoor, Muhammad Ashraf, Muzammal Hussain, <b>Muhammad Hassan Mushtaq</b> , Muhammad Anees, Muhammad Yaqoob.	Sci.Int., 26(3), 1203-1206	2014
80.	Comparison of sharp injury among different operation theatres and awareness about occupational health and safety in a government hospital, Lahore, Pakistan.	Atia Noreen, Mamoon Chaudary, Hamad Bin Rashid, <b>Muhammad Hassan Mushtaq</b> , Mansur-ud-din Ahmed, Shakira Sadiq Gill	Sci.Int.,26(3),1145 - 1150,2014	2014
81.	Comparative study to assess coagulation abnormalities in breast cancer.	Ahmed T, Ahmed RS, Basharat MU, <b>Mushtaq MH</b> , Gill SS, Khawaja AR, Basit A, Khan A, Khan MF	Advancements in Life Science, 1(2): 96-103	2014
82.	Study of socio-demographic risk factors of dengue fever in a tertiary care hospital in Pakistan	Arslan Maqbool, <b>Muhammad Hassan Mushtaq</b> , Mansur-ud-Din Ahmad, Muhammad Nisar	International Journal of Infectious Diseases, 21: 257-258 <b>(Impact Factor: 3.202)</b>	2014
83.	Role of Paleolithic Diet in Prevention of Diabetes and Related Chronic Diseases Consequences	Umar Bacha, Muhammad Nasir, Muhammad Hassan Mushtaq, Tayyab Shahzad, Muhammad Asif Ali, Javed Muhammad, Naveed Akhbar	Advanced in Pharmaceutical and Ethnomedicines 1(1): 1-3 <b>(Impact Factor: 0.325)</b>	2013
84.	Decontaminating mycotoxins in agricultural produce following bioremediation approach.	Shinawar Waseem Ali, Muhammad Saleem, Muhammad Riaz, <b>Muhammad Hassan Mushtaq</b>	Scientific Bulletin. Series F Biotechnologies, Vol: XVII,	2013



			225- 227 <b>(Impact Factor</b>	
85.	Tick Infestation Rate in Cattle and Buffalo in Different Areas of Khyber Pakhtunkhwa, Pakistan	A. Khan, <b>M. H. Mushtaq</b> , M. Ahmad, Y. Tipu, A. Khan and Munibullah	J. Vet. Anim. Sci., Vol. 3 No. (1-2): 31-35	2013
86.	Antibiogram analysis of <i>Staphylococcus aureus</i> isolated from mastitic milk samples of buffaloes in district Bhimbir Azad Kashmir.	Hussain A, Ahmad MU, <b>Mushtaq MH</b> , Khan MS, Khan MA, Nisar M, Sabir N and Khan SA	Buffalo Bulletin 2013 Vol. 32. Special Issue 2: 1021-1028. <b>(Impact Factor 0.048)</b>	2013
87.	Challenges due to early calf mortality in dairy industry of Pakistan and strategies for improvement.	<b>Muhammad Hassan Mushtaq</b> , Muhammad Nasir Saleem, Rana Muhammad Ayyub and Irfan Khattak	Veterinaria, 1(1): 13-17	2013
88.	Prevalence and molecular diagnosis of <i>Babesia ovis</i> and <i>Theileria ovis</i> in Lohi sheep at Livestock Experiment Station, Bahadurnagar, Okara, Pakistan.	Shahzad W, Noor H, Munir R, Ahmad MU, Rana MY, <b>Mushtaq MH</b> , Ahmad N, Mehmood F.	Iranian Journal of Parasitology. 8(4): 570-578. <b>(Impact Factor 0.326)</b>	2013
89.	Prevalence and genetic characterization of avian polyomavirus and psittacine beak and feather disease virus isolated from budgerigars in Mainland China.	Qingye Zhuang, Jiming Chen, <b>Muhammad Hassan Mushtaq</b> , Jie Chen, Guangyu Hou, Shuo Liu, Jinping Li, Baoxu Huang and Wenming Jiang	Archives of Virology. 157(1): 53-61 <b>(Impact Factor 2.209)</b>	2012
90.	Aspirin may do wonders by the induction of immunological self-tolerance against autoimmune atherosclerosis.	Muzamil Hussain, Aqeel Javeed, Muhammad Ashraf, Amjad Riaz and <b>Muhammad Hassan Mushtaq</b>	Medical Hypothesis. 78(1): 171-3 <b>(Impact Factor 1.389)</b>	2012
91.	Surveillance of influenza virus serotypes circulating in equine species of two geographical regions of Pakistan.	Muhammad Sajid, Mansur-ud- Din Ahmad, Muhammad Athar Khan, Muhammad Aftab Anjum and <b>Muhammad Hassan Mushtaq</b>	Tropical Animal Health and Production. 45(2): 693-4 <b>(Impact Factor 1.115)</b>	2012
92.	Protective immune	Zeeshan B, <b>Mushtaq M.</b>	Veterinary	2011



	responses induced by in ovo immunization with recombinant adenoviruses expressing spike(S1)glycoprotein of infectious bronchitis virus fused/co-administered with granulocyte- macrophage colony stimulating factor.	<b>H</b> , Wang X, Li W, Jiang P.	Microbiology, 148(1): 8-17 <b>(Impact Factor 3.256)</b>	
93.	Comparative pathogenecity of HPS Virus in embryonated egg and cell culture propagated hydropericardium syndrome virus in broiler birds	Ahmad MD, S Zaman, <b>MH Mushtaq</b> , AA Anjum and M Akram.	Pakistan Veterinary Journal, 31(4): 321-326 <b>(Impact Factor 1.255)</b>	2011
94.	Complete genome analysis of highly pathogenic H5N1 influenza A virus isolated from tiger in China.	<b>Mushtaq M. H.</b> , Juan H, Jiang P, Li Y. F, Li T. X, Du Y.J, Mukhtar M. M.	Archives of Virology, 153: 1569–1574 <b>(Impact Factor 2.209)</b>	2008
95.	Effect of type of initial feed on yolk sac retention in broiler chicks experimentally infected with <i>Escherichia coli</i> .	<b>Mushtaq M. H</b> , Chaudhary Z. I, Khan M. S, Hashimi H. A and Muhstaq F.	Pakistan Journal of Science, 58(3-4): 93-98 <b>(Impact Factor: 0.20)</b>	2006
96.	Effects of immunostimulants on Broilers suffering from Infectious Bursal Disease	Mushtaq F, Khan S. A, Aslam A, Saeed K, Saleem G, and <b>Mushtaq M. H.</b>	Pakistan Veterinary Journal, 23(1): 36-40 <b>(Currently an IF journal: 1.217)</b>	2003

## CONFERENCE PRESENTATIONS

Sr. #	Presentation Title	Conference Title	Country	Date	Abstract No.
1.	Effect of type of initial feeding on yolk sac in broilers infected with <i>Escherichia coli</i>	14 <sup>th</sup> world veterinary poultry congress, Istanbul	Turkey	22-26 August, 2005	Abstract No. O175-378
2.	Yolk sac retention in poultry: Is bacterial infection the only cause?	15 <sup>th</sup> world veterinary poultry congress, Beijing	P. R. China	22-26 August, 2007	Abstract No. WVPC2007-06-26
3.	Molecular Characterization of a	International Meeting on emerging	Austria	13-19 February	Abstract No. 236



	Highly Pathogenic H5N1 Influenza A Virus Isolated From a Tiger In China.	diseases and surveillance, Vienna		, 2009	
4.	Genetic characterization and study on pathogenesis of HPAI H5N1 of avian origin isolated from mammal, Marrakesh	16 <sup>th</sup> world veterinary poultry congress	Morocco	8-12 November, 2009	
5.	Microbiological quality of snack food in an urban city of Pakistan, Tehran	2 <sup>nd</sup> International Congress of Food Hygiene	I. R. Iran	30 April – 01 May, 2011	
6.	The evaluation of cellular immune responses following DNA immunization against Coccidiosis, Istanbul,	IV International Congress of Molecular Medicine	Turkey	27-30 June, 2011	
7.	A randomized double blind therapeutic trial on clinico- serological response of aflatoxin administration in Japanese Quails.	National conference on Sustainable Agriculture in Changing Climate, Peshawar	Pakistan	7-9 July, 2011	Abstract book, Page 68
8.	Epidemiologic investigations and economic losses of camel diseases at district Rajanpur.	National conference on Sustainable Agriculture in Changing climate, Peshawar	Pakistan	7-9 July, 2011	Abstract book, Page 60
9.	Epidemiology of main transboundary diseases of ruminants in the central Punjab.	National conference on Sustainable Agriculture in Changing climate, Peshawar	Pakistan	7-9 July, 2011	Abstract book, Page 16
10.	Evaluating the biodegradation potential and diversity of chlorpyrifos- degrading bacteria isolated from polluted waste water.	International conference on applied genetics and biotechnology, Faisalabad	Pakistan	December 8-10, 2011	Abstract book, Page 33
11.	Bioremediation: A potential tool to decontaminate mycotoxins in food	1 <sup>st</sup> International conference on safe food and human health. Faisalabad	Pakistan	10-11 January, 2012	Abstract no. PS 21, Page 62



	and feed.				
12.	Detection of hazardous organisms in raw and pasteurized milk with particular reference to Enterobacteriaceae.	15 <sup>th</sup> International Congress on Infectious Diseases,. Bangkok.	Thailand	13-16 June, 2012	Abstract No. 53.002
13.	Pesticides residues in agricultural environment: a potential threat to food safety in Pakistan.	National science conference on agriculture and food security issues in global environmental perspectives, Rawalakot	Pakistan	11-13 July, 2012	Abstract book, Page no 103.
14.	Seroepidemiological investigation and risk factors analysis of Brucellosis in small ruminants and their owners in a district of Pakistan.	International Scientific Exchange (ISE) 15 <sup>th</sup> International Congress on Infectious Diseases, , Bangkok	Thailand	13-16 June, 2012	Abstract No. 53.002
15.	Clinico-epidemiology of diarrhea in children in tertiary care hospitals Lahore	Golden Jubilee celebrations, CPSP regional centre, Peshwar. Medicine and Allied session	Pakistan	07-09 June, 2012	Poster No. 8
16.	Microbial detoxification of mycotoxins in agricultural produce.	First international Biology congress in Kyrgyzstan, Bishkek	Kyrgyzstan	24-26 Sep, 2012	Abstract No S068
17.	Challenges and Prospect of Camel Meat Production and Marketing in Pakistan.	Conference of Sustainability of Camel Population and Production (CSCPP), Al-ahsa	Kingdom of Saudi Arabia	17-20 February , 2013	
18.	Carrier Status of Foot and Mouth Disease in Ruminants through Reverse Transcription Polymerase Chain Reaction	8 <sup>th</sup> Asian Buffalo Congress	Istanbul, Turkey	21-25 April, 2013	Buffalo Bulletin. Abstract No. 32, page, 1075
19.	Prevalence of Brucellosis in aborted dairy animals and their handlers in District Bannu, KPK (Abst No. AH-9)				
20.	Molecular Detection	National	Pakistan	18 Nov,	Poster



	of Brucellosis in Small Ruminants in district Quetta, Baluchistan and potential risk factors for its <b>zoonotic</b> transmission	Symposium on <b>One Health</b> Pakistan at National Agriculture Research Council, Islamabad		2013	presented
21.	A study of Socio-demographic Risk Factors of Dengue fever in a Tertiary Care Hospital in Lahore.	National Symposium on One Health Pakistan at National Agriculture Research Council, Islamabad	Pakistan	18 Nov, 2013	Poster presented (prize winner)
22.	Awareness and Knowledge of Pet Zoonosis in Pet Owner of Lahore, Pakistan.	National Symposium on One Health Pakistan at National Agriculture Research Council, Islamabad	Pakistan	18 Nov, 2013	Poster presented
23.	Clinico-epidemiological study of <i>Toxocara cati</i> among pet cats in Lahore and chance of subsequent infection to pet owners	National Symposium on One Health Pakistan at National Agriculture Research Council, Islamabad	Pakistan	18 Nov, 2013	Poster presented
24.	Seroprevalence of Toxoplasmosis in pastoral goat herds and herd attendants by Latex Agglutination Test Kit in D.G. Khan (Punjab), Pakistan.	National Symposium on One Health Pakistan at National Agriculture Research Council, Islamabad	Pakistan	18 Nov, 2013	Poster presented
25.	Risk factors of Dengue Fever in Lahore, Pakistan.	12 <sup>th</sup> annual congress of the Southern African Society for Veterinary Epidemiology and Preventive Medicine. Port Elizabeth,	Republic of South Africa	20-22, August 2014	Abstract book, page No. 19
26.	Macro-epidemiology of Foot and Mouth Disease in the Chagai district, Pakistan.	12 <sup>th</sup> annual congress of the Southern African Society for Veterinary Epidemiology and	Port Elizabeth. Republic of South Africa	20-22, August 2014	Abstract book, page No. 20



		Preventive Medicine. Port Elizabeth,			
27.	Microbial evaluation of raw meat in district Lahore Pakistan	International Conference on Recent Developments in Human Nutrition	Pakistan	March 2014	
28.	Association of antimicrobial resistant campylobacter with poultry meat at retail shops: a cross-sectional study in Lahore	Federation of Asian Veterinary Associations Congress	Singapore	28-30 November, 2014	
29.	Prevalence of antibiotic resistant <i>Staphylococcus aureus</i> in milk, milk by-products and food handler at retail shops in Lahore	Federation of Asian Veterinary Associations Congress	Singapore	28-30 November, 2014	
30.	Molecular detection and antimicrobial resistance pattern of Campylobacter species isolated from retail meat shops in Lahore, Pakistan	The 18 <sup>th</sup> International workshop of Campylobacter, Helicobacter & related organisms (CHRO)	Rotorua, New Zealand	1-5 November, 2015	Abstract No. 0136, page No. 109
31.	Impact of climate change on incidence of livestock infectious diseases in Khyber Pakhtunkhwa, Pakistan	Asian Buffalo Congress 2015	Istanbul, Turkey	21-25 April, 2015	Abstract Book Page No. 12
32.	Descriptive Epidemiology and seasonal variation in prevalence of milk fever in KPK (Pakistan)	Asian Buffalo Congress 2015	Istanbul, Turkey	21-25 April, 2015	Abstract Book Page No. 14
33.	Tick infestation rate in cattle and buffalo in different areas of Khyber Pakhtunkhwa, Pakistan	Asian Buffalo Congress 2015	Istanbul, Turkey	21-25 April, 2015	Abstract Book Page No. 15
34.	Sequencing analysis of virulent gene Fibronectin binding protein a (FnB) of <i>Staphylococcus aureus</i> isolated from river buffaloes in Pakistan.	Asian Buffalo Congress 2015	Istanbul, Turkey	21-25 April, 2015	Abstract Book Page No. 190
35.	Risk factors associated with <i>Mycobacterium Bovis</i> skin positivity in cattle and buffalo in Peshawar, Pakistan	3 <sup>rd</sup> International workshop on Dairy Science Park	Peshawar, Pakistan	16-18 November, 2015	Abstract Book page No. 8



36.	Effects of Electrolyte imbalance on Immunity against Newcastle disease virus infection	International Seminar on Poultry diseases	Faisalabad, Pakistan	14-15 December, 2015	Abstract Book page No. 121
37.	Cross section survey on parasites of backyard poultry in subtropical rural communities of Pakistan	International Seminar on Poultry diseases	Faisalabad, Pakistan	14-15 December, 2015	Abstract Book page No. 122
38.	Sequence analysis of all available PB1-F2 comprehensive Pakistani isolates of subtypes, H5N1, H9N2, H7N3	World veterinary poultry association congress	Cape Town, Republic of South Africa	7-11 September, 2015	Abstract No. 0258
39.	A retrospective study of Newcastle Disease Epidemics in Commercial Broilers to evaluate the associated risk factors.	World veterinary poultry association congress	Cape Town, Republic of South Africa	7-11 September, 2015	Abstract No. 0254
40.	Occurrence of <b>zoonotic</b> tuberculosis in occupationally exposed high-risk groups in Peshawar, Pakistan	The 2nd Asian-African Congress of International Journal of Mycobacteriology,	Iran	December, 2016	Abstract No. S247
41.	Epidemiological investigation of brucellosis in cattle and buffalo at organized dairy farms in Punjab, Pakistan	1st International Conference on Tropical Animal Science and Production (TASP 2016)	Bangkok, Thailand	July 26-29, 2016	Abstract No. AO0253
42.	Active surveillance of wild birds for avian influenza in the wetlands of Jammu & Kashmir.	2nd International Conference on <b>Zoonoses</b>	Multan. Pakistan	October 20-21, 2016	ICZ-2016-031
43.	Detection of Campylobacter species in feces of various domestic animals in Lahore, Pakistan.	2nd International Conference on <b>Zoonoses</b>	Multan. Pakistan	October 20-21, 2016	ICZ-2016-045
44.	Fecal shedding of campylobacter in pet animals and its potential as zoonotic pathogen.	2nd International Conference on Zoonoses	Multan. Pakistan	October 20-21, 2016	ICZ-2016-046
45.	Seroprevalence and risk factors for Brucellosis at organized dairy farms of Punjab, Pakistan	2nd International Conference on Zoonoses	Multan. Pakistan	October 20-21, 2016	ICZ-2016-065



46.	Epidemiology of <b>zoonotic</b> brucellosis in livestock farms in Pakistan; “an underestimated public health problem	Dairy Science Park Conference, 2017	Konya, Turkey	November, 2017	BRM 125
47.	Cross sectional survey of gastrointestinal parasites in backyard poultry in Pakistan	Dairy Science Park Conference, 2017	Konya, Turkey	November, 2017	AH 151
48.	Seroprevalence of hepatitis C virus infection for predisposition of diabetes in pregnant women in low economic status families in North Eastern Pakistan	Recent Advances in Clinical Research (RACR).	Lahore, Pakistan	19-20 December, 2017	Page 88
49.	Homocysteine as a risk factor for coronary heart disease and its association with dietary factors	Recent Advances in Clinical Research (RACR).	Lahore, Pakistan	19-20 December, 2017	Page 128
50.	Risk of mortality post-coronary artery bypass grafting in Pakistani population using EuroSCORE model	Recent Advances in Clinical Research (RACR).	Lahore, Pakistan	19-20 December, 2017	Page 87
51.	Economic losses and burden of endoparasites in buffalo and cattle of rural Punjab”an underestimated emerging threat	Dairy Science Park Conference, 2017	Konya, Turkey	1-5 November, 2017	AH-129
52.	Impact of climatic change on epidemiology of tick-borne haemoparasites in Azakheli buffalo in district Swat, Pakistan	Dairy Science Park Conference, 2017	Konya, Turkey	1-5 November, 2017	AH-106
53.	Sero-epidemiology of toxoplasmosis in pastoral goat Herds and shepherds in Punjab, Pakistan	Dairy Science Park Conference, 2017	Konya, Turkey	1-5 November, 2017	AH-130
54.	Assessment of Mycobacterium bovis in bovine milk and knowledge, attitude and practices about tuberculosis in Peshawar, Pakistan	One Health International Conference (OHC-2017)	Jhang, Pakistan	13-15 November, 2017	OHC/0103-03-2017
55.	Isolation and molecular	International Union of	Singapor	17-21	IUMS2017-



	characterization of <i>Listeria Monocytogenes</i> from chicken and fish in Pakistan	Microbiological Societies (IUMS) 2017	e	July, 2017	2138
56.	Molecular Epidemiology of a novel re-assorted epidemic strain of equine influenza virus in Pakistan in 2015-16	The 15th International Symposium of Veterinary Epidemiology and Economics.	Chiang Mai, Thailand	12-16th Nov 2018	Abstract No 201
57.	Investigating the epidemiology of EI epidemic spread in the province of Khyber Pakhtunkhwa, Pakistan in 2015-16	The 15th International Symposium of Veterinary Epidemiology and Economics	Chiang Mai, Thailand	12-16th Nov 2018	Abstract No 527
58.	Molecular Epidemiology of a novel re-assorted epidemic strain of equine influenza virus in Pakistan in 2015-16.	International Conference on Emerging Diseases, Outbreaks and Case Studies.	Orlando, USA	March 28-29, 2018	
59.	A matched case-control study of risk factors for equine influenza epidemic 2015-2016 in equine in Khyber Pakhtunkhwa, Pakistan.	International Conference on Emerging Diseases, Outbreaks and Case Studies.	Orlando, USA.	March 28-29, 2018	
60.	The equine influenza outbreak in Pakistan 2016: Seroprevalence and Geo-Temporal epidemiology of a large propagating outbreak	The 15th International Symposium of Veterinary Epidemiology and Economics	Chiang Mai, Thailand	12-16th Nov 2018	Abstract No 637
61.	Molecular Epidemiology of the two internal genes of equine influenza H3N8 virus isolated in Pakistan 2015-16	The 15th International Symposium of Veterinary Epidemiology and Economics	Chiang Mai, Thailand	12-16th Nov 2018	Abstract No 548
62.	Awareness level and biosecurity compliance of equine farmers and owners regarding equine influenza in Khyber Pakhtunkhwa, Pakistan.	Conference to “Promote Safe and Secure Science” in the Middle East/North Africa & South/Southeast Asia	Kuala Lumpur, Malaysia	5-9 February 2018	
63.	The epidemiology of infectious Diseases in buffaloes under different Climatic conditions in	International Buffalo Conference (IBC)	Lahore, Pakistan	18-20 February 2019	2019-IBC-69



	Khyber Pakhtunkhwa, Pakistan				
64.	A short report on epidemiological investigation of dog bite cases in association with temperature change as a part of climate change	First national conference on public health – “ <b>One Health One Future</b> ”	Lahore, Pakistan		
65.	Prebiotics added to Iron fortificants improve healthcare quality of anemic patients	4 <sup>th</sup> International Conference on Patient Safety at Rawalpindi Medical University	Rawalpindi, Pakistan	December 01, 2019	
66.	Effect of prebiotics & iron fortificants on iron biomarkers in anemic rats	30 <sup>th</sup> All Pakistan Food Science Conference at The University of Lahore	Lahore, Pakistan	December 11, 2019	
67.	Prebiotics added to iron fortificants help enhance absorption of iron among anemic women	1 <sup>st</sup> PNDS international conference on non-communicable disease	Lahore, Pakistan	1 to 5 November 2019	Page 124-125
68.	Prebiotics and iron fortificants; A novel approach to combat Iron deficiency anemia	7 <sup>th</sup> international conference on Biological and computational Sciences (C-BICS 2019)	Capital University of Science and Technology Islamabad	28 November, 2019	
69.	Iron Fortificants & Prebiotics; A Novel Combination to Boost Immunity in Anemic Models. 2020	8th international conference on biological and computational sciences (C-BICS 2020),		November 28, 2020	
70.	Molecular and Serologic evaluation of Bovine Herpes Virus 1 at the Cattle-Goat Interface in Lahore, Pakistan.	Conference on Recent Advances in Applied Biosciences	Department of Biology, Lahore Garrison University	30-31st March, 2021	
71.	Effect of storage conditions on the stability of a commercial live lyophilized Newcastle disease vaccine.	Conference on Recent Advances in Applied Biosciences	Department of Biology, Lahore Garrison	30-31st March, 2021	



			University		
72.	1st Session Zoonosis & Virology & Bacteriology	Two day Virtual 4th WPSA international (virtual)	UVAS, Lahore	9-10 September, 2021	
73.	Epidemiology of Bovine Tuberculosis & its Public Health Significance in Public, Pakistan	Two day workshop on “Different Laboratory Based Diagnostic Techniques for Bovine Tuberculosis	Department of Epidemiology and Public Health, UVAS, Lahore	16-17 February, 2022	
74.	Knowledge, Attitudes, and Practices (KAP) Survey Regarding COVID-19 in Punjab-Pakistan	Second International Congress on Biological and Health Sciences-2022	Turkey	24-27 February, 2022	
75.	Food safety management system and their implications in public health. M. Hassan Mushtaq, M. A, Warraich, A. Rehman, F. Awan, S. Sadiq, M. Chaudhry and R. M. Ayyub.	39th all Pakistan international science conference on emerging health issues in Pakistan	Pakistan	14th & 15th December, 2022.	

### PROFESSIONAL TRAININGS AS RESOURCE PERSON / ORGANIZER:

Sr. #	Title	Organization/Institution	Country	Period
01.	Workshop on Public health significance of MTB and multidrug resistance in TB Treatment.	Department of Epidemiology and Public Health, UVAS, Lahore	Pakistan	24 February 2022.
02.	workshop on Epidemiology of Bovine Tuberculosis and it's public health significance in Punjab, Pakistan. On	Department of Epidemiology and Public Health, UVAS, Lahore	Pakistan	16-17-February, 2022
03.	Qualification development committee for the development of curriculum for the trade “environmental	Park lane Hotel, Lahore	Pakistan	07-11 Nov. 2022.



	trichology”			
04.	Qualification development committee for the development of curriculum for the trade “environmental trichology”	PITAC, Lahore	Pakistan	14-18 March, 2022.
05.	Qualification development committee for the development of curriculum for the trade “environmental trichology”	PITAC, Lahore	Pakistan	09-13 May, 2022.
06.	Antimicrobial Resistance (AMR), Antimicrobial Use (AMU), Transboundary Animal Diseases (TADs) and Herd Health Management	Department of Epidemiology and Public Health, UVAS, Lahore	Pakistan	7th April 2022
07.	International virtual conference on Rabies Awareness and its control	Vets care club, UVAS, Lahore	Pakistan	19 September, 2021
08.	An international webinar on Responsibilities of veterinary in Preventing the emerging <b>zoonotic infections</b>	Organized by Dept. of Epidemiology and Public Health	Pakistan	July 06, 2021
09.	Virtual training Workshop on “Capacity building of Female veterinarians, Veterinary assistants and faculty members about <b>One Health and Emerging Zoonosis</b> ”.	Pakistan Agricultural Research Council(PARC), Islamabad	Pakistan	8 <sup>th</sup> to 12 <sup>th</sup> March, 2021
10.	Two days training workshop on “Patent Drafting”	Technology and Innovation Support Center (TISC), UVAS Lahore	Pakistan	7 <sup>th</sup> -8 <sup>th</sup> January 2020
11.	The Global Rinderpest Post-Eradication Security: Phase II	FAO, Islamabad.	Pakistan	Thursday 18 June 2020
12.	Epidemiological Investigation of Norovirus in Children And Its Associated Risk Factors In District Lahore, Punjab-Pakistan	Two day Virtual <b>one health</b> conference (OHC-2020) Postcovid-19 perspective, CVAS, Jhang Pakistan	Pakistan	25-26 November, 2020
13.	Rabies – Awareness and	Chief Organizer; Rabies free	Pakistan	28 February,



	current status in Pakistan	Pakistan initiative, Global UGrad, Pakistan, A community initiative by US state department and International Research and Exchange Board (IREX)		2020
14.	Seminar on Antimicrobial Resistance	Organized by Dept. of Epidemiology and Public Health - Overview by expert from Services Institute of Medical Sciences (SIMS), Lahore	Pakistan	22 November, 2019
15.	Anti-rabies campaign	Organizer: No killing of Dogs: Livestock and Dairy Development Department and Society for Protection of Cruelty to Animals (SPCA) at UVAS	Pakistan	7 <sup>th</sup> November, 2019
16.	Rabies in animals and humans; <b>One Health</b> Concept	FVS, UVAS, Lahore. Resource person	Pakistan	27 September, 2019
17.	What are the Causes and Preventive Measures of Hepatitis A	Organized public awareness talk by inviting expert from KEMU, Lahore	Pakistan	19 September, 2019
18.	Slaughter house HACCP/Food safety Management system; documentation training	Resource Person	Pakistan	
19.	Slaughter house postmortem training to veterinarians and workers	Resource Person	Pakistan	
20.	National Seminar on Prevention and Control of Rabies	Organized By; KBCMA, CVAS, Resource Person	Pakistan	23 April, 2019
21.	Cascading of Halal Laboratory Techniques to Food Processors (Food Authority for Detection of Alcohol, Gelatin and Fatty acids in different food products)	Organized By; Export Facilitation Center for Food Processors and Punjab Food Authority, Organizer and Resource person	Pakistan	March, 2019
22.	OIE Advance	Organized by IVPD,	Pakistan	November 25-



	Competancy Training Program	Resource person		29, 2019
23.	<b>One Health</b> Approach Towards Control of Rabies: 5-Days Training for Veterinary Professionals	(IVPD) & FVS, UVAS, Lahore. (Organizer & Resource Person)	Pakistan	13-17-September, 2018
24.	Basic Chinese Language Course	UVAS Pak-China Desk (Organizer & Resource Person)	Pakistan	11-04-2018 to 04-05-2018
25.	Two week training course for wildlife officers and veterinary officers titled “wildlife animals disease management”	Training school Punjab Wildlife Research Center, Gatwala, Faisalabad (Resource Person)	Pakistan	5-3-18 to 18-3-18
26.	Field Training program for slaughterhouse workers (Lahore)	Project of Export Facilitation center for Poultry and Livestock (Organizer & Resource Person)	Pakistan	March to April, 2018
27.	In Field Training program for slaughterhouse workers (Karachi)	Project of Export Facilitation center for Poultry and Livestock (Organizer & Resource Person)	Pakistan	27 May to 03 June, 2018
28.	Workshop on role of migratory birds in disease dissemination	Resource Person in Punjab Agriculture Research Board (PARB) Funded Project	Pakistan	15-16th November , 2017
29.	One Day Hands on Training Workshop “Basic Concept of Biosafety”	Organized by Dept of Epidemiology and Public Health and University Diagnostic Laboratory, UVAS, Lahore	Pakistan	10 May, 2017
30.	Basic Chinese Language Course	UVAS Pak-China Desk (Organizer & Resource Person)	Pakistan	27-03-2017 to 10-04-2017
31.	The Awareness and Field Test for Diagnosis of Rabies	Department of Epidemiology and Public health, University of Veterinary and Animal Sciences (UVAS), Lahore (Organizer & Resource Person)	Pakistan	20 Dec, 2011
32.	The Awareness and Current Status of Rabies	Department of Epidemiology and Public health, University of Veterinary and Animal Sciences (UVAS), Lahore (Organizer & Resource	Pakistan	28 July, 2011



		Person)		
33.	Use of Endnote software for citation and referencing in research	University of Veterinary and Animal Sciences (UVAS), Lahore (Organizer & Resource Person)	Pakistan	08 Feb ,2011

## PROFESSIONAL TRAINING COURSES AND WORKSHOPS ATTENDED / PARTICIPATED:

Sr. #	Title	Organization/Institution	Country	Period
1.	One Day International Workshop On Food And Water Borne <b>Zoonoses</b> In One Health Perspective	Department of Pathobiology, Faculty of Veterinary Science, Bahauddin Zakariya University , Multan	Pakistan	20 September, 2022
2.	Virtual Genomic Epidemiology for Public Health Laboratories - Welcome and Software Preinstallation and Slack	DIEPS/FIC/NIH		March, 2022
3.	Webinar: World Food Safety Day	FAO, UNEP, WFP, WHO and World Organisation for Animal Health (OIE)	Bangkok	2 June 2022
4.	An international webinar on Responsibilities of Veterinarians in preventing the emerging <b>zoonotic</b> infections	Epidemiology and Public Health in collaboration with OZDAC	Pakistan	06 July, 2021
5.	Dengue Awareness	Epidemiology and Public Health in collaboration with Govt. of Punjab	Pakistan	07 Oct, 2021
6.	OIE virtual regional awareness raising workshop on veterinary workforce and VPPS (Veterinary Parap) The Pacific.	Ministry of National food security & research,	Pakistan	10 <sup>th</sup> , 15 <sup>th</sup> , 22 <sup>nd</sup> 29 June & 6 July, 2021
7.	05 day virtual training on Biorisk management	Avian Influenza Laboratory – UVAS Lahore	Pakistan	January 18-22, 2021
8.	Seminar on Cooperation in Animal Epidemic Prevention and Control for Belt&Road Countries	Jiangsu Inspection and Quarantine Institute of Quality (Jiangsu Commodity Inspection Training Center)	Belt&Road Countries, China	May 12, 2021-June 1, 2021



9.	Predicted Pattern and Update on Covid-19	Epidemiology and Public Health, Faculty of Veterinary Science, University of Veterinary and Animal Sciences, Lahore.	Pakistan	2020
10.	Updates and progress in the SAARC region towards elimination of dog-mediated human rabies by 2030	Organised Jointly by WHO, FAO and OIE	Rabies Webinar	2020
11.	Controlling Disease Outbreaks of Especially Dangerous Pathogens by Strengthening <b>One Health</b> Strategies in Pakistan	The University of Tennessee	Indonesia	2019
12.	Basic Chinese Language Course	UVAS Pak-China Desk	Pakistan	2019
13.	National seminar on control of rabies	Organized By KBCMA CVAS Narowal	Pakistan	2019
14.	International Buffalo Congress (IBC 2019) held at Pearl Continental, Lahore-Pakistan.	Organized By UVAS, Lahore and International Buffalo Federation	Pakistan	2019
15.	Training workshop on Patent Drafting	In-service Training Facility of Advance Veterinary Education and Professional Development for Veterinary Professional Development in collaboration with (TISC), UVAS Lahore	Pakistan	2019
16.	International Poultry Expo-2019	Lahore Expo Center	Pakistan	2019
17.	Rabies in Animals	Faculty of Veterinary Sciences, UVAS, Lahore	Pakistan	2019
18.	Senior Management Program for UVAS	Lahore University Management Sciences	Pakistan	9-13 July, 2018
19.	1 <sup>st</sup> workshop for biosafety officers (BSO)	Institutional Biosafety Committee (IBC), UVAS, Lahore	Pakistan	April 12, 2018
20.	2 <sup>nd</sup> workshop for biosafety officers (BSO)	Institutional Biosafety Committee (IBC), UVAS, Lahore	Pakistan	April 13-14, 2018
21.	Awareness level	FVS, UVAS, Lahore	Pakistan	08-10 August,



	biosafety workshop			2018
22.	Advanced level biosafety workshop	FVS, UVAS, Lahore	Pakistan	26-207, November, 2018
23.	Field Epidemiology, Lab diagnostics & vector analysis of arboviuses in Pakistan	Agha Khan University	Pakistan	8-10 May 2018
24.	Advanced Agriculture Bio-risk Training	Organized by University of Tennessee, USA	Indonesia	02-05 Sep, 2018
25.	<b>One Health</b> Strategic Framework Development Workshop	Joint venture of Centre for Disease Control, Atlanta and National Institute of Health, Islamabad, Pakistan.	Islamabad, Pakistan	16 <sup>th</sup> to 20 <sup>th</sup> July, 2018.
26.	Halal Food Certification	Export Facilitation Center for Livestock and Poultry, UVAS, Pakistan	Halal Science Center, Bangkok, Thailand	20-28 June, 2018
27.	Isolating Emerging Infectious Pathogens during Disease Outbreaks in Pakistan	Organized by University of Tennessee, USA	Thailand	08-11 Jan, 2018
28.	National Workshop on Intellectual Property Protection for the Inventions Related to Agriculture and Animal Sciences	Office of Research Innovation and Commercialization, UVAS, Lahore	Pakistan	09-10 October, 2017.
29.	Training course on diagnosis of viral diseases	Nuclear Institute of Agriculture and Biology (NIAB), Faisalabad	Pakistan	19-21 September, 2017
30.	Workshop on Bioinformatics Tools & Resources	Institute of Biochemistry & Biotechnology, Faculty of Biosciences, UVAS, Lahore	Pakistan	29th -30th March, 2017
31.	Prevention and detection of infectious <b>zoonotic</b> diseases in agricultural and public health sectors	Organized by University of Tennessee, USA	Jordan.	08-14 April, 2017
32.	International training on Risk Analysis; 2016	United States Department of Agriculture	USA	28 March to 1 <sup>st</sup> April, 2016
33.	Strengthening of Lab Networking	Pakistan Academy of Science, Islamabad	Pakistan	2016
34.	Three days international workshop on Biosafety.	Collaboration of University Diagnostic Lab (UDL); Pakistan Biological Safety Association; Fogarty International Center, NIH, USA and ICLS (International	Pakistan	18-20, December 2014



		council for life sciences),USA		
35.	Brucellosis Workshop for Veterinarians.	Organized by Continuing Education, University of Pretoria. Held at Port Elizabeth	Republic of South Africa	18 -19 Aug, 2014
36.	Laboratory animals hands on workshop	University Diagnostic Laboratory and Department of Clinical Medicine and Surgery, UVAS, Lahore.	Pakistan	18-19 June, 2014
37.	International Conference and Expo 2014 “Recent Developments in Human Nutrition”	University of Veterinary and Animal Sciences, Lahore and Nutritionists Association of Pakistan	Pakistan	19-20 March, 2014
38.	Biological production of <i>Mycoplasma Gallisepticum</i> antigen for diagnostic purpose.	University Diagnostic Laboratory, Department of Microbiology, UVAS, Lahore	Pakistan	Sep, 2013
39.	Water quantity and quality assessment	OIC Ministerial standing committee on scientific and technological cooperation (COMSTECH), Islamabad	Pakistan	16-18 October, 2012
40.	Developing Research Plans and Proposals	Department of Statistics and Computer Science, UVAS, Lahore	Pakistan	03-21 July, 2012
41.	A Practical Short Course on Infectious Disease Modeling	Mahidol-Oxford Tropical Medicine Research Unit, Bangkok	Thailand	17-19 Jun, 2012
42.	Biostatistics and Data Analysis Concepts	Department of Statistics and Computer Science, UVAS, Lahore	Pakistan	07-11 May, 2012
43.	Understanding ISO 22000:2005. Food safety management system requirements (Covering topics; product recall and food hygiene):	SMIS American International Accreditation Organization. Abedin International, Lahore	Pakistan	31 March, 2012
44.	Experimental design and data analysis using SAS	Department of Statistics and Computer Science, UVAS, Lahore	Pakistan	18-23 July, 2011
45.	Professional Competency Enhancement Program for Teachers	Center for Educational Policy and Administration. UVAS, Lahore	Pakistan	23-27 Aug 2010 and 28 Sep-to-01 Oct, 2010
46.	Development of sustainable and	Talented Research Exchange Program-	Pakistan	27-28 Sep, 2010



	collaborative research networks	INSPIRE Pakistan, Organized by UVAS Lahore and British Council		
47.	Animal Forensics: DNA Finger printing	Institute of Biochemistry and Biotechnology, UVAS, Lahore	Pakistan	21-22 Sep, 2010
48.	Influenza virus and respiratory pathogens	Pasteur Research Center, Hong Kong University, Hong Kong, S.A.R.	Hong Kong. P.R. China	01-23 July, 2010
49.	Protocols for Basic Molecular Manipulation Training	College of Life Science, Nanjing Agricultural University, Nanjing, Jiangsu.	P.R. China	24-27 Jun, 2006
50.	Techniques for Writing and Presenting a Scientific Paper	Michael Grossman, (University of Illinois, USA) held at Nanjing Agricultural University, Nanjing, Jiangsu.	P.R. China	29-30 May, 2006
51.	Dairy Farming	Allama Iqbal Open University. Islamabad	Pakistan	02 Sep, 2002
52.	Fish Nutrition and Feeding	Fisheries Research and Training Institute. Punjab Govt. Lahore	Pakistan	10-15Sep, 2001
53.	Practical Poultry Farming	Poultry Research Institute. Punjab Govt. Rawalpindi	Pakistan	16-31 Jan, 2001
54.	Medical Transcription Training Course	Zeus Corporation. Lahore.	Pakistan	14 Jan -to- 28 Feb 2001

## FUNDED RESEARCH PROJECTS

Sr. No.	Title	Funding Source and year	Status	Amount (Million Rs)
1.	Carrier status of Foot and Mouth Disease in Ruminants through Reverse Transcription Polymerase Chain Reaction.	Funded by Higher Education Commission of Pakistan (2011)	Principal Investigator	Rs 0.5 Million
2.	Molecular Detection Of Emerging And Reemerging Meatborne Bacterial Pathogens And Evaluation Of Various Control Strategies.	Funded by Higher Education Commission of Pakistan (2013)	Co- Principal Investigator	Rs 5.34 Million
3.	Preparation and application of multi- epitopes DNA vaccines against Newcastle Disease.	Funded by Higher Education Commission of Pakistan (2014)	Co- Principal Investigator	Rs 7.64 Million



4.	Development of indigenous inactivated Equine Influenza (EI) vaccine and Comparative efficacy study versus imported	Funded by Pakistan Agriculture Research Board (2018)	Principal Investigation	Rs. 9.017 Million
5.	Epidemiological investigation of food and beverages for Norwalk like viruses in Punjab.	Funded by Higher Education Commission (2018)	Principal Investigation	Rs. 3.359 Million
6.	<i>In vitro</i> evaluation of acaricidal resistance in <i>Rhipicephalus microplus</i> from Pakistan	Funded by Higher Education Commission (2018)	Co- Principal Investigator	Rs. 0.476 Million
7.	Molecular Epidemiology and Associated Risk Factors of Bovine Ephemeral Fever in Punjab, Pakistan	Pakistan Agricultural Research Council (Agricultural Linkages Programme)	Co- Principal Investigator	Rs 10.25 Million
8.	Epidemiological disease modeling and molecular surveillance of SARS-CoV-2	Funded by RRG, Higher Education Commission (August, 2020)	Principal Investigation	Rs 6.9 Million
9.	Analytical and Molecular Epidemiology to Control Brucellosis in Small Ruminants and High risk Human	Higher Education Commission	Principal Investigator	Rs 19.88 Million (Jan 2020)
10.	Global Health Research for Cardiovascular Disease and Diabetes	Global Health Research Project	Principal Investigator	40,000 GBP (Jan 2020)
11.	<b>One Health</b> – Eco Health (OH-EH) Nexus for Improving Public Health in Pakistan	Council on International Veterinary Medical Education Grants (CIVME-Grants)	Co- Principal Investigator	US\$ 10000 (Jan 2020)
12.	Risk Based Analysis and Outbreak Investigation of Peste Des Petits Ruminants to establish the Role of Transmission of Virus from Camels to Goat herds in Punjab	PSDP, NVL	Principal Investigator	Rs 25 Million (October, 2021)
13.	Development of a diagnostic kit using Reverse Line Blot Assay for simultaneous detection of multiple tick-borne pathogens.	Pakistan Agriculture Research Board (2022)	Team Member	Rs.14.691 Million

### UNIVERSITY/ DEPT. THESIS COMMITTEES:

Sr. No.	Student Name (Degree)	Committee member as:	Status
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<b>Ph.D. students</b>			
1.	Shazia Munir (Epidemiology)	Supervisor	Enrolled
2.	Asma Shakoor (Epidemiology)	Supervisor	Enrolled
3.	Syma Arshad (Epidemiology)	Supervisor	Cancelled
4.	Dr. Muhammad Shakeel (Epidemiology)	Supervisor	Enrolled
5.	Irfan Khattak (Epidemiology)	Supervisor	Completed (2017)
6.	Amjad Khan (Epidemiology)	Supervisor	Completed (2018)
7.	Zarfshan Tahir (Epidemiology)	Major Member	Completed (2015)
8.	Abid Hussain (Epidemiology)	Major Member	Completed (2015)
9.	Muhammad Nisar (Epidemiology)	Major Member	Completed (2018)
10.	Muhammad Sajid (Epidemiology)	Major Member	Completed (2020)
11.	Rizwana Muzaffar (Epidemiology)	Major Member	Completed (2022)
12.	Waqas Shabeer (Epidemiology)	Major Member	Enrolled
13.	Muhammad Ilyas Khan (Epidemiology)	Major Member	Enrolled
14.	Muhammad Iqbal (Epidemiology)	Major Member	Enrolled
15.	Muhammad Omer Gulzar (Epidemiology)	Major Member	Enrolled
16.	Chanda Jabeen(Epidemiology)	Major Member	Enrolled
17.	Muhammad Ilyas Khan (Epidemiology)	Major Member	Enrolled
18.	Muhammad Iqbal (Epidemiology)	Major Member	Enrolled
19.	Waqas Shabeer (Epidemiology)	Major Member	Enrolled
20.	Muhammad Raashed (Epidemiology)	Major Member	Cancelled
21.	Ghazanfar Rashid (CMS)	Minor Member	Completed
22.	Muhammad Talha Sajid (Veterinary Surgery)	Minor Member	Completed
23.	Muhammad Imran Hussain(FSHN)	Minor Member	Completed
24.	Muhammad Shahid (Microbiology)	Minor Member	Completed
25.	Obaid Muhammad Abdullah (Veterinary Surgery)	Minor Member	Completed
26.	Qurat-ul- Ain Naseer (Microbiology)	Minor Member	Completed
27.	Faiza Ghazanfar (Microbiology)	Minor Member	Completed
28.	Abdul Momin Rizwan Ahmad (FSHN)	Minor Member	Completed
29.	Syeda Anam Masood Gardezi (Microbiology)	Minor Member	Enrolled
30.	Rafaqat Ali (Clinical Medicine)	Minor Member	Enrolled
31.	Muhammad Bilal (Clinical Medicine)	Minor Member	Enrolled
32.	Muhammad Waqar Aziz (Microbiology)	Minor Member	Enrolled
33.	Saima Latif (Food and Nutrition)	Minor Member	Enrolled
34.	Aqsa Mubeen (FSHN)	Minor Member	Enrolled



35.	H. M. Umer Sulehria (Clinical Medicine)	Minor Member	Enrolled
36.	Muhammad Sajid Ali (Clinical Medicine and Surgery)	Minor Member	Enrolled
37.	Muhammad Zeeshan Zafar (Microbiology)	Minor Member	Enrolled
38.	Asfa Sakhawat (Meat Science and Technology)	Minor Member	Enrolled

#### **M. Phil. Students**

1.	Sharoon Samuel(Epidemiology)	Supervisor	Enrolled
2.	Iqra Shahzadi	Supervisor	Enrolled
3.	Syed Balaj Hussain Rizvi (One Health)	Supervisor	Enrolled
4.	Abdul Rehman (Epidemiology)	Supervisor	Completed
5.	Ahmad Umar, (Epidemiology)	Supervisor	Completed
6.	Karmat Ali (Epidemiology)	Supervisor	Cancelled
7.	M. Ahsan Iftikhar (Epidemiology)	Supervisor	Completed
8.	Saira Ijaz (Epidemiology)	Supervisor	Completed
9.	M. Haris Khan(Epidemiology)	Supervisor	Completed
10.	Haram Fatima(Epidemiology)	Supervisor	Completed
11.	Sabir Hussain (Epidemiology)	Supervisor	Completed
12.	Warda Gill (Epidemiology)	Supervisor	Completed
13.	Ammar Yasir (Epidemiology)	Supervisor	Completed
14.	Yasir Mahmood (Epidemiology)	Supervisor	Completed
15.	Sonia Arif Dar (Epidemiology)	Supervisor	Completed
16.	Abdul Khalid (Epidemiology)	Supervisor	Completed
17.	Sohaib Qamar (Epidemiology)	Supervisor	Completed
18.	Ali Naeem (Epidemiology)	Supervisor	Completed
19.	Paio Khan (Epidemiology)	Supervisor	Completed
20.	Saba Khalid (Epidemiology)	Supervisor	Completed
21.	Muhammad Awais Akbar (Epidemiology)	Supervisor	Completed
22.	Sidra Sahar (Epidemiology)	Supervisor	Completed
23.	Ammara Shakeel (Epidemiology)	Supervisor	Completed
24.	Muhammad Islam (Epidemiology)	Supervisor	Completed



25.	Nosheen (Epidemiology)	Supervisor	Completed
26.	Zahra Aziz Butt (Epidemiology)	Supervisor	Completed
27.	Uzma Ashraf (Epidmeiology)	Supervisor	Completed
28.	Abdul Sattar (Epidemiology)	Supervisor	Completed
29.	Muhammad Samilullah(Epidemiology)	Supervisor	Completed
30.	Amjad Khan (Epidemiology)	Supervisor	Completed
31.	Messam Abbas (Epidemiology)	Supervisor	Completed
32.	Moeen Athar (Epidemiology)	Supervisor	Completed
33.	Tariq Azam (Epidemiology)	Supervisor	Completed
34.	M. Usman Zaheer (Epidemiology)	Supervisor	Completed
35.	Furqan Awan (Epidemiology)	Supervisor	Completed
36.	Ayesha Saeed (Epidemiology)	Supervisor	Completed
37.	Abdul Saeed (Epidemiology)	Supervisor	Completed
38.	Waseela Ashraf (Epidemiology)	Supervisor	Completed
39.	Moin Afzal (Epidemiology)	Supervisor	Completed
40.	Taqwa Bilal (One Health)	Major Member	Enrolled
41.	Zahra Nasir (Epidemiology)	Major Member	Enrolled
42.	Laiba Ashfaq (One Health)	Major Member	Enrolled
43.	Zeeshan Khan (Epidemiology)	Major Member	Enrolled
44.	Muhammad Faizan Elahi Bhatti (One Health)	Major Member	Enrolled
45.	Aqsa Zahoor (Epidemiology)	Major Member	Enrolled
46.	Mustabshira Fatima (Epidemiology)	Major Member	Completed
47.	Paras Ahmad (Epidemiology)	Major Member	Enrolled
48.	Mamoon Arshad (Epidemiology)	Major Member	Completed
49.	Mubashra Murtaza (One Health)	Major Member	Completed
50.	Chanda Liaqat(Epidemiology)	Major Member	Completed
51.	Muhammad Umar (Epidemiology)	Major Member	Completed
52.	Hafiz Samiullah (Epidemiology)	Major Member	Completed
53.	Imtiaz Ali (Epidemiology)	Major Member	Completed
54.	Shazia Munir (Epidemiology)	Major Member	Completed



55.	Mudassar Aziz (Epidemiology)	Major Member	Completed
56.	Noor ul Hudda (Epidemiology)	Major Member	Completed
57.	M. Shahzad Haider (Epidemiology)	Major Member	Completed
58.	Syed Musa Raza Naqvi (Epidemiology)	Major Member	Completed
59.	Tayba Roshan (Epidemiology)	Major Member	Completed
60.	Aisha Arshad (Epidemiology)	Major Member	Completed
61.	Afeefa Shafiq (Epidemiology)	Major Member	Completed
62.	Gurdeep Singh (Epidemiology)	Major Member	Completed
63.	Ali Siftain (Epidemiology)	Major Member	Completed
64.	Mirwaise Khan (Epidemiology)	Major Member	Completed
65.	Amna Younas (Epidemiology)	Major Member	Completed
66.	Ayesha Nosheen (Epidemiology)	Major Member	Completed
67.	Muhammad Noman (Epidemiology)	Major Member	Completed
68.	Muhammad Muslim Saher (Epidemiology)	Major Member	Completed
69.	Hafiz M. Umer Sulehria (Epidemiology)	Major Member	Completed
70.	Muhammad Usman (Epidemiology)	Major Member	Completed
71.	Sadia Ashraf (Epidemiology)	Major Member	Completed
72.	Shams-ur-Rehman (Epidemiology)	Major Member	Completed
73.	Haider Noor (Epidemiology)	Major Member	Completed
74.	Ajmal Iqbal (Epidemiology)	Major Member	Completed
75.	Abdul Wahab (Epidemiology)	Major Member	Completed
76.	Atia Noreen (Epidemiology)	Major Member	Completed
77.	Muhammad Imran (Epidemiology)	Major Member	Completed
78.	Samilullah Khan (Epidemiology)	Major Member	Completed
79.	Abdul Moeed (Epidemiology)	Major Member	Completed
80.	Farwa Amjad (Epidemiology)	Major Member	Completed
81.	Kinza Shabbir (Epidemiology)	Major Member	Completed
82.	Muhammad Sohail (Epidemiology)	Major Member	Completed
83.	Atta Ullah (Epidemiology)	Major Member	Completed
84.	Kanwal Hafeez (Epidemiology)	Major Member	Completed
85.	Azmat Ullah (Therigenology)	Minor Member	Completed



86.	Sher Zaman (Pharmacology and Toxicology)	Minor Member	Completed
87.	Kiran Batool (Microbiology)	Minor Member	Completed
88.	M Awais Akram	Minor Member	Enrolled
89.	Mubashra Farooq (Clinical Medicine)	Minor Member	Enrolled
90.	Muhammad Kamran Ashraf (Therigenology)	Minor Member	Enrolled
91.	Iraj Jamshaid (Food and Nutrition)	Minor Member	Enrolled
92.	Nofil Mustafa Javaid (Microbiology)	Minor Member	Enrolled
93.	Kashaf Iftikhar (Microbiology)	Minor Member	Enrolled
94.	Madiha Yasmin (Microbiology)	Minor Member	Enrolled
95.	Kashaf (Microbiology)	Minor Member	Enrolled
96.	Mahrukh Mehboob (Microbiology)	Minor Member	Enrolled
97.	Sahar Hanif (Microbiology)	Minor Member	Enrolled
98.	Iqra Zafar (Microbiology)	Minor Member	Enrolled
99.	Fariha Shafique (Microbiology)	Minor Member	Enrolled
100.	Sitara Naseeb (Microbiology)	Minor Member	Enrolled
101.	Talha Ahmad (Microbiology)	Minor Member	Enrolled
102.	Zohaib Hassan (Therigenology)	Minor Member	Enrolled
103.	Muhammad Ahsan Ali (Microbiology)	Minor Member	Enrolled
<b>Ph.D. External Member</b>			
1.	Kashif Asghar (PhD)	External Examiner and Member (National University of Science and Technology)	Completed

## BOOKS/ LABORATORY MANUAL

### 1. Notes and Laboratory Exercises of Epidemiology

Authors: Ahmad MD, Chaudhry M, Mushtaq MH and Gill SS  
JM Art Publishers, Lahore, Pakistan.

### 2. A laboratory manual on Milk Hygiene and Public Health (2<sup>nd</sup> Edition)

Authors: Ahmad MD, Chaudhry M, Mushtaq MH and Gill SS  
JM Art Publishers, Lahore, Pakistan.

### 3. Epidemiology

Reference Book (Urdu) for Livestock Assistant Two Years Diploma Course  
Published By: Institute of Continuing Education  
University of Veterinary and Animal Sciences, Lahore



#### **4. Practical Manual for Poultry Hygiene and Disease Prevention**

Practical Manual for Under-graduate students. BS Poultry (Hons.)

Under Process of Composing & Editing

#### **5. Yolk Sac Infection in Poultry**

Authors: Mushtaq M.H. and Hussain F.

ISBN: 978-3-639-34156-0

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## CURRICULUM DEVELOPMENT

- Developed course work for four years (two semesters per year) bachelor degree program entitled “BS in Public Health administration”
- Developed and got approval (departmental board of studies, faculty board of studies, Syndicate, Registrar office and Vice Chancellor’s office) of “One Year Diploma in Public Health”
- Developed and got approval (departmental board of studies, faculty board of studies, Syndicate and submitted to HEC for getting NOC to launch degree program) of MPhil “**One Health**”
- Revised courses of Epidemiology in DVM degree program as team member both for HEC National Curriculum Revision Committee (HEC-NCRC) and Pakistan Veterinary Medical Council (PVMC)
- Supervised complete revision and revamping of MPhil and PhD curriculum in the discipline of Epidemiology and Public Health

## POPULAR ARTICLES / POLICY BRIEF

- “Women empowerment for sustainable livestock development: constraints and possible solutions to minimize financial, social and cultural barriers policy for review”.  
**POLICY BRIEF**
- “Can Pakistan Meet the global goal of Rabies eradication by 2030? Possible Approaches”. **POLICY BRIEF** published by Center for Applied Policy Research in Livestock (CAPRIL)
- “Tick-Borne Diseases: A threat to livestock economy and public health in Pakistan, Current status and control strategies”. **POLICY BRIEF** published by Center for Applied Policy Research in Livestock (CAPRIL)
- “To boost livestock economy, Pakistan needs self-sufficiency in indigenous vaccine production: Limitations and Requirements” **POLICY BRIEF** published by Center for Applied Policy Research in Livestock (CAPRIL)
- “Molecular Epidemiology of Equine influenza viruses for the first time in Pakistan isolated in the outbreak 2015-17 (Published in newspaper The Daily Heights 11 Oct, 2017)
- **Zoonotic** Tuberculosis- Still a Problem in Developing Countries. The Daily Patriot Newspaper, page-4, <http://dailythepatriot>. 10 Feb 2016
- “Global threat of influenza virus out break and importance of its preparedness”. Muhammad Hassan Mushtaq and Filza Hussain. National Center of Excellence in Molecular Biology, University of the Punjab, and Medical University of Vienna. Published online “Agri news and views” (20 April, 2010)



- “Bird Flu” By: Prof. Jiang Ping and M. Hassan Mushtaq (student PhD)  
Key Laboratory of Animal Disease Diagnostic And Immunology, College Of Veterinary Medicine. Published on “NAU News online” [www.nau.edu.cn](http://www.nau.edu.cn)  
Nanjing Agricultural University, Nanjing, Jiangsu, P.R.China. (26 December, 2006).

## COUNTRIES VISITED

- **INDONESIA:** To attend training “Controlling Disease Outbreaks of Especially Dangerous Pathogens by Strengthening One Health Strategies in Pakistan” Organized by University of Tennessee, USA. (2019)
- **UNITED STATES OF AMERICA:** Visit to a research collaborator at “OIE Equine Influenza Reference Laboratory” at Gluck Equine Research Center, University of Kentucky, Lexington, Kentucky, USA. (2019)
- **INDONESIA:** To attend training “Advanced Agriculture Bio-risk” Organized by University of Tennessee, USA. (2018)
- **THAILAND:** To attend training course “Halal Food Certification”, Halal Science Center, Bangkok, Thailand (2018)
- **THAILAND:** To attend training course titled “Isolating Emerging Infectious Pathogens during Disease Outbreaks in Pakistan” Organized by University of Tennessee, USA. (2018)
- **JORDAN:** To attend training course titled “Prevention and detection of infectious zoonotic diseases in agricultural and public health sectors”, Amman, Jordan. 08-14 April, 2017
- **UNITED STATES OF AMERICA:** To attend training course on “Risk Analysis” arranged by US Department of Agriculture (USDA). Fort Collins, Colorado, USA. 28 March to 01 April, 2016
- **SOUTH AFRICA:** To attend 12<sup>th</sup> annual congress of the Southern African Society for Veterinary Epidemiology and Preventive Medicine. Port Elizabeth, RSA. 20-22 August, 2014
- **KINGDOM OF SAUDI ARABIA:** To attend Conference of Sustainability of Camel Population and Production (CSCPP), Al-ahsa, KSA. 17-20 February 2013
- **THAILAND:** To attend training course on “Infectious disease modeling” 17-19 June, 2012
- **IRAN:** To attend 2<sup>nd</sup> international congress of food hygiene 30 April – 01 May, Tehran, I.R. Iran. 2011
- **HONG KONG (SAR), P.R.CHINA:** To attend training course on virology “Influenza virus and respiratory pathogens” Pasteur Research Center, Hong Kong University 07-23 July, 2010.
- **MOROCCO:** To attend 16th World Veterinary Poultry Congress, 8-12 November, 2009.
- **P.R.CHINA:** To attend 15th World Veterinary Poultry Congress, 22-26 August, 2007.
- **REPUBLIC OF BOTSWANA:** Visited Botswana Meat Commission (BMC), Francistown by invitation in 2006
- **P.R.CHINA:** Attended training course on Protocols for Basic Molecular Manipulation Training: College of Life Science, Nanjing Agricultural University 24-27 June, 2006
- **P.R.CHINA:** Attended training course on Techniques for Writing and Presenting a Scientific Paper: Michael Grossman, (University of Illinois) held at Nanjing Agricultural University 29-30 May, 2006.



## LANGUAGES

English, Urdu, Chinese

## SCHOLARSHIPS / GRANTS / AFFILIATIONS

- ☐ **Merit Scholarship** (Benevolent scholarship) from year 1996 to 2003
- ☐ **“Overseas Scholarship” for PhD** from ‘Higher Education Commission’ of Pakistan (2005 to 2008)
- ☐ Grant to present research work at international conference as PhD scholar. Higher Education Commission of Pakistan
- ☐ Grant to a present scientific work at international conference through BEP (Biosecurity Engagement Program) USA
- ☐ Grant to a present scientific work at international conference through PARB (Punjab Agriculture Research Board).
- ☐ **Life time** member of Pakistan Veterinary Medical Council (PVMC)
- ☐ Higher Education Commission (HEC) **Approved Supervisor**
- ☐ Member of National Academy of Young Scientists, University of Punjab, Pakistan
- ☐ Member of **“Sigma Group” (Statistical Society)**, UVAS, Lahore, Pakistan
- ☐ Member of South African Society for Veterinary Epidemiology and Preventive Medicine (SASVEPM)
- ☐ **“Executive Member”** World Veterinary Poultry Association (WVPA), Pakistan Branch
- ☐ Travel Grant from HEC to present research work at international congress arranged by SASVEPM at South Africa.
- ☐ Research Grants from HEC and Punjab Agriculture Research Board (PARB).
- ☐ Member of **Endowment Fund Committee**, UVAS, Lahore
- ☐ Liaison Member of **ORIC** steering committee of UVAS, Lahore since 2017

## REFERENCES:

### 1. Prof. Dr Jiang Ping (Supervisor)

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