

## CURRICULUM VITAE

**Dr. Rifat Ullah Khan**



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### PERSONAL INFORMATION

**Father's Name:** Naqib Ullah Khan

**Nationality:** Pakistan

**Domicile:** Bannu

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**Date of Birth:** 12-02-1980

**Gender:** Male

**Marital Status:** Married

**Permanent Address:** Kote Mehter Post Office Ghoriwala, Bannu, Pakistan

**Job Title:** Professor

**Job Place:** College of Veterinary Sciences, The University of Agriculture, Peshawar, Pakistan

### ACADEMIC BACKGROUND

DEGREE	University/ Board	DIVISION	YEAR
PhD (Vet. Physiology)	University of Agriculture Faisalabad, Pakistan	1 <sup>st</sup>	2012
M.Sc (Hons)	The University of Agriculture, Peshawar, Pakistan	1 <sup>st</sup>	2006
Doctor of Veterinary Medicine (DVM)	University of Veterinary and Animal Sciences Lahore, Pakistan	1 <sup>st</sup>	2002
F.Sc (Pre-Medical)	B.I.S.E Bannu	1 <sup>st</sup>	1997
Matric	B.I.S.E Bannu	1 <sup>st</sup>	1995

## Research publications (Impact Factor Journals)

H-Index (38): <https://www.webofscience.com/wos/author/record/H-4207-2015>

- 1) Hafeez, A., Awan, H., Naz, S., Alhidary, I.A., **R.U. Khan**, Konca, Y., Shakirullah, Rahman, H.U. and Selvaggi, M. 2024. Effect of graded levels of soybean oil supplementation as an energy source on broiler performance, carcass characteristics, and nutrient digestibility. *Pakistan Journal of Zoology*: <https://dx.doi.org/10.17582/journal.pjz/20240209140620>
- 2) Arooj, S., Naz, S., Qaisar, A., Satti, S., Razzaq, A., Alhidary, I. **R.U. Khan**, and Tufarelli, V. 2025. Estimation of heavy metals enrichment and geo-accumulation associated with habitat quality from selected wildlife parks. *Soil and Sediment Contamination* 34: 1-18. <https://doi.org/10.1080/15320383.2024.2328038>
- 3) Hafeez, A., Sikandar, R., Naz, S., Alhidary, I.A., **R.U. Khan**, Terricone, S. 2024. Impact of eggs storage time and duration of fumigation on hatchability, embryonic mortality and characteristics of day old chicks. *Pakistan Journal of Zoology* <https://dx.doi.org/10.17582/journal.pjz/20240602050103>
- 4) Nasir, J.A., Chand, N., Naz, S., **R.U. Khan**, Alhidary, I., Abdulrehamn, S.H. and Tufarelli, V. 2024. In vitro screening of antibacterial efficacy of stem waste of oyster mushrooms (*Pleurotus ostreatus*) against different *Escherichia coli* strains and in vivo effects against *E. coli*-induced infection in Japanese quails. *Cogent Food and Agriculture*, 10: No. 1, 2422536 <https://doi.org/10.1080/23311932.2024.2422536>
- 5) Sultan, A., Aziz, T., Islam, Z., Uzair, M.S., Alhidry, I.A., **R.U. Khan**, and Tiwari, R. 2024. Effect of ginger-based zingibain enzyme on growth and intestinal health in Japanese quails. *Archives of Animal Breeding*
- 6) Hafeez, A., Saleem, U., Naz, S., Alhidary, I.A., **R.U. Khan**, Konca, Y. and Selvaggi, M. 2024. Dietary supplementation of betaine on growth performance, nutrient digestibility, blood biochemistry and intestinal histopathology in coccidia challenged birds. *Pakistan Journal of Zoology*
- 7) Shoukat, A., Tahir, M., Naz, S., **R.U. Khan**, Alhidary, I.A., Bib, S. and Ragni, M. 2024. Incorporating extruded rapeseed meal in broiler diets: effects on performance and nutrient absorption. *Pakistan Journal of Zoology*
- 8) Sultan, A., Aziz, T., Islam, Z., Uzair, M.S., Alhidary, I., **R.U. Khan** and Tiwari, R. 2024. Effect of ginger-based zingibain enzyme on growth and intestinal health in Japanese quails. *Archives of Animal Breeding*,
- 9) Alam, M, Chand, N., Naz, S., Khan, M., **R.U. Khan**, Alhidary, I.A., Abdelrahman, S. and Ragni, M. 2024. Comparative growth, production, carcass characteristics and reproduction performance of Naked Neck, Black Australorp and their crossbred chicken. *Italian Journal of Animal Science* 23: 1624-1634. <https://doi.org/10.1080/1828051X.2024.2418980>
- 10) Khan, A., Sultan, A., Islam, Z., Uzair, M.S., Alhidary, I.A., **R.U. Khan**, Naz, S., Momand, N.K and Tiwari, R. 2024. Optimizing growth performance, nutrients digestibility, immunity and gut health in broilers through ginger-derived phyto-protease enzyme (zingibain) supplementation. *Italian Journal of Animal Science* 23: 1695-1703. <https://doi.org/10.1080/1828051X.2024.2416586>
- 11) Ahsan, T., Tahir, M., **R.U. Khan**, Ahmad, S., Khan, N.A., Konca, Y., Alhidary, I.A.

- Abdelrahman, S.A., Tarricone, S. 2024. Impact of varying levels of soy hulls and  $\beta$ -mannanase enzyme supplementation on growth performance, carcass characteristics, nutrient utilization and blood biochemical profile in broiler chickens. *Italian Journal of Animal Science* 23: 1551-1560. <https://doi.org/10.1080/1828051X.2024.2410878>
- 12) Islam, Z., Ikram, M., Naz, S., Sultan A., Khan, K., Alhidary, I.A., Tiwari, R. and **R.U. Khan**. 2024. Effect of selenium-enriched yeast diet on performance, biochemistry, and selenium concentration in meat and egg contents of laying Japanese quails. *Archive of Animal Breeding*. 67: 493-502. <https://doi.org/10.5194/aab-10-1-2024>
  - 13) Hafeez, A., Sikandar, R., Naz, S., Alhidary, I.A., **R.U. Khan**, and Tarricone, S. 2024. Impact of eggs storage time and duration of fumigation on hatchability, embryonic mortality and characteristics of day old chicks. *Pakistan Journal of Zoology* <https://dx.doi.org/10.17582/journal.pjz/20240602050103>
  - 14) Ahsan, T., Tahir, M., Naz, S., **R.U. Khan**, Alhidary, I.A., Abdelrahman, S.H. and Selvaggi, M. 2024. Effect of soy hulls as alternative ingredient on growth performance, carcass quality, nutrients digestibility and intestinal histological features in broilers. *Italian Journal of Animal Science* 23: 1336-1347 <https://doi.org/10.1080/1828051X.2024.2397495>
  - 15) Hafeez, A., Khan, R.U., Naz, S., Batool, S., **R.U. Khan**, Alhidary, I.A., Abdelrahman, S.H. and Tiwari, R. 2024. Ameliorative effect of Aloe vera supplementation on the growth indices, intestinal health and oocysts shedding under an experimentally challenged with coccidia in Japanese quails. *Italian Journal of Animal Science* 23: 1269-1278. <https://doi.org/10.1080/1828051X.2024.2391552>
  - 16) Ahmad, A., Sultan, A., Naz, S., Chand, N., Islam, Z., Alhidary, I.A., **R.U. Khan**, Abdelrahman, S.H. and Dai, S. 2024. Growth performance, nutrients digestibility, intestinal microbiota and histology altered in broilers fed maize- or sorghum-based diets. *Veterinary Quarterly* 44:1-8. <https://doi.org/10.1080/01652176.2024.2373295>
  - 17) Zada, T., Khan, S., Isalm, Z., Sultan, A., Khan, K., albekairi, T.H, Khan, A., Aziz, T. and **R.U. Khan**. 2024. Growth performance, serum biochemical profile and liver histopathology of broiler chickens supplemented with graded level of dried sprouted wheat grains. *Italian Journal of Animal Science*, 23: 880-886. [10.1080/1828051X.2024.2356213](https://doi.org/10.1080/1828051X.2024.2356213)
  - 18) Khan, M., Chand, N., Khan, S., Naz, S., Alrefaei, A.F., Chandrasekaran, A. and **R.U. Khan**. 2024. Partial replacement of soybean meal with *Musca domestica* larvae meal in broiler diets: implications for growth performance, nutrient utilization, hemato-biochemical profile and organoleptic characteristics. *Archives of Animal Breeding* 67: 247–257 <https://doi.org/10.5194/aab-67-247-2024>
  - 19) Hafeez, A., Ullah, S., Naz, S., Alrefaei, A.F., **R.U. Khan**, Abdelrahman, S., Losacco, C. and Selvaggi, M. 2024. Effect of dietary polyphenol rich grape (*vitis vinifera*) seed extract supplementation on production performance, egg quality, plasma MDA, reproductive performance and faecal microbiota of golden laying hens. *Journal of Applied Animal Research* 52: [10.1080/09712119.2024.2365748](https://doi.org/10.1080/09712119.2024.2365748)
  - 20) Sana, B., Chand, N., Naz, S., Alhidary, I.A., **R.U. Khan**, Shamsi, S., Losacco, C., and Tufarelli, V. 2024. Effect of hempseed (*Cannabis sativa* L.) in diet on growth, gut health, and immunity in broilers. *Veterinary Quarterly* 44: 1-10. [10.1080/01652176.2024.2367214](https://doi.org/10.1080/01652176.2024.2367214)
  - 21) Khan, S.M., **R.U. Khan**, Khan, H. and Khan, S. 2024. Effects of calcium supplementation on blood metabolites, subclinical mastitis and reproductive

- efficiency in poor performing postpartum dairy cows. *Pakistan Journal of Zoology*
- 22) Farooq, K., Sultan, A., Shah, A.A., **R.U. Khan**, Khan, R., Yasmeen, G and Khan, N.A. 2024. Maize silage and ryegrass fodder blend-based diets to optimize growth performance, nutrients digestibility, and methane gas production of fattening calves. *International Journal of Agriculture and Biological Engineering* 17: 75-81. [10.25165/j.ijabe.20241703.7899](https://doi.org/10.25165/j.ijabe.20241703.7899)
  - 23) Sultan, A., Murtaza, S., Naz, S., Islam, Z., Alrefaei, A.F., **R.U. Khan**, Abdelrahman, S. and Chandrasekaran, A. 2024. Live performance, nutrient digestibility, immuneresponse and fecal microbial load modulation in Japanese quails fed a Bacillus-based probiotic alone or combination with xylanase. *Veterinary Quarterly*, 44: 1-9 [10.1080/01652176.2024.2364641](https://doi.org/10.1080/01652176.2024.2364641)
  - 24) Sultan, A., Bibi, S., Naz, S., Islam, Z., Alrefaei, A.F., **R.U. Khan**, Abdelrahman, S. and Selvaggi, M. 2024. Effect of anise seed (*Pimpinella anisum* L.) and protease alone or in combination on growth performance, carcass characteristics, humoral immunity, nutrients digestibility and cecal microbiota in Japanese quails. *Food and Agriculture Immunology* 35:351 [0.1080/09540105.2024.2351362](https://doi.org/10.1080/09540105.2024.2351362)
  - 25) Ayyub, A., Naz, S., Arooj, S., Alhidary, I., **R.U. Khan** and Pugliese, G. 2024. Seasonal variations in behavioral activity patterns of Antelope cervicapra in captivity. *Pakistan Journal of Zoology* <https://dx.doi.org/10.17582/journal.pjz/20231125050818>
  - 26) Nasir, J.A., Chand, N., Hafeez, A. and **R.U. Khan**. 2024. Enhancing growth performance, immunity, and gut morphology in quails through oyster mushroom stem waste supplementation. *Pakistan Journal of Zoology* 56: 2301-2310. <https://dx.doi.org/10.17582/journal.pjz/20231115021054>
  - 27) Guo, H., Wan, H., Lou, W., **R.U. Khan**, You, J., Huang, B., Hao, S., Li, G. and Dai, S. 2024. Deoxynivalenol and T-2 toxin cause liver damage and egg quality degradation through endoplasmic reticulum stress in summer laying hens. *International Journal of Biometeorology* 68: 1387-1396. [/10.1007/s00484-024-02674-w](https://doi.org/10.1007/s00484-024-02674-w)
  - 28) Khan, S.M., **R.U. Khan**, Naz, S., Alrefaei, A.F., and Tufarelli, V. 2024. Interaction of blood calcium with milk yield, energy metabolites, subclinical mastitis, and reproductive performance in crossbred dairy cows. *Reproduction in Domestic Animals* 59:e14557. [10.1111/rda.14557](https://doi.org/10.1111/rda.14557)
  - 29) Muhammad, M.D., Chand, N., Naz, S., Alhidary I.A., Shah, A.A., **R.U. Khan**, Losacco, C. 2024. Adaptation to Heat Stress in Broilers Using Dried Tomato Pomace and Zinc: Effects on Growth Performance, Oxidative Stress, Intestinal Features and Humoral Immunity. *Pakistan Journal of Zoology*
  - 30) Naz, S., Bibi, G., Nadeem, R., Alhidary, I.A., Dai, S., Israr, M. and **R.U. Khan**. 2024. Evaluation of biological selenium nanoparticles on growth performance, histopathology of vital organs and genotoxicity in Japanese quails (*Coturnix coturnix japonica*). *Veterinary Quarterly* 44: 1-10. [10.1080/01652176.2024.2319830](https://doi.org/10.1080/01652176.2024.2319830)
  - 31) Khan, R., Tahir, M., Naz, S., Alhidary, I.A., Shamsi, S., Dai, S., **R.U. Khan**, V. Tufarelli. 2024. Integrating dietary supplementation with poppy (*Papaver somniferum* L.) seed meal: effects on growth performance, nutrient digestibility, and faecal microbiota in broilers. *Archives of Animal Breeding* 67: 73-80. <https://doi.org/10.5194/aab-67-73-2024, 2024>
  - 32) Kausar, S., Chand, N., Naz, S., Alhidary, I.A., Dai, S., Ayasan, T., **R.U. Khan**. 2024. In vitro and in vivo effects of methanolic extract of dietary ginger (*Zingiber officinale*)

- and onion (*Allium cepa*) supplementation on growth performance and fecal microbiota in *Escherichia coli* infected broiler chickens. *Livestock Science* 281:105416 <https://doi.org/10.1016/j.livsci.2024.105416>
- 33) Hafeez, A., Khan, D., Naz, S., Alonaizan, R., Al-Akeel, R.K., Israr, M. **R.U. Khan**. 2024. Effect of *Azolla pinnata* meal on growth, immunity, faecal *E. coli*, antioxidant capacity and gut histomorphology in Japanese quails. *Journal of Applied Animal Research* 52: 2310750 <https://doi.org/10.1080/09712119.2024.2310750>
  - 34) Al-Atiyat, R.M., Suliman, G.M., Abu-Alruz, K., Al-Zyoud, F., Mamkagh, A., M. El-Waziry, A., Al-Owaimer, A.N. and **R.U. Khan**. 2024. Multivariate Discriminant Analysis on Differentiating Sheep Breeds Based on Live Body and Carcass Measurements. *Pakistan Journal of Zoology*, 56: 571-578. <https://dx.doi.org/10.17582/journal.pjz/20230816022706>
  - 35) Bingqian, N., Shah, A.A., Ullah, S., **R.U. Khan**, Khan, M.S., Zaman A. and Muhammad, K. 2024. Exploring the role of insects as sustainable feed in aquaculture nutrition and enhancing antioxidant capacity, growth and immune response. *Turkish Journal of Fisheries and Aquaculture* 24 (5): TRJFAS24581
  - 36) Gul, F., Amin, H., Naz, S., Khan, M.T., Alhidary, I.A., **R.U. Khan**, Pugliese, G. and Tufarelli V. 2024. Evaluation of blood minerals and oxidative stress changing pattern in pre-partum and post-partum Achai and Holstein Friesian dairy cows. *Reproduction in Domestic Animals* 59:e14525. DOI: 10.1111/rda.14525
  - 37) Zhang X, Khan NA, Yao E, Kong F, Chen M, **R.U. Khan** et al. 2024. Effect of growing regions on morphological characteristics, protein subfractions, rumen degradation and molecular structures of various whole-plant silage corn cultivars. *PLoS ONE* 19(1): e0282547. <https://doi.org/10.1371/journal.pone.0282547>
  - 38) Naz, S., Raza, N., Alhidary, I., Satti, S., Rafique, A., Batool, S., Shamsi, S., Dai, S. and **R.U. Khan**. 2024. Evaluation of copper nanoparticles on growth, organs histology and DNA damage in Japanese quails (*Coturnix coturnix japonica*). *Toxin Reviews* 43: 127-136. <https://doi.org/10.1080/15569543.2023.2298909>
  - 39) Khan, M.I., Chand, N., Naz, S., Alonaizan, R., Hu, H. Shamsi, S. and **R.U. Khan**. 2024. Effects of zinc supplementation from organic and inorganic sources on growth, blood biochemical indices, and intestinal microarchitecture in broilers. *Veterinary Quarterly* 44 (1) 2298491 [10.1080/01652176.2023.2298491](https://doi.org/10.1080/01652176.2023.2298491)
  - 40) Hafeez, A., Ali, S.S., Akhtar, J., Naz, S., Alrefai, A.F., Albeshr, M.F., Israr, M. and **R.U. Khan**. 2024. Impact of coriander (*Coriandrum sativum*), garlic (*Allium sativum*), fenugreek (*Trigonella foenum-graecum*) on zootechnical performance, carcass quality, blood metabolites and nutrient digestibility in broilers chickens. *Veterinary Quarterly* 44 (1):1-7 <https://doi.org/10.1080/01652176.2023.2300948>
  - 41) Lou, W., Wu, W., Guo, H., Xiao, S., **R.U. Khan**, Zhang, X., Li, G. and Dai, S. 2024. Ameliorative Effect of Dietary Glutamine on Antioxidant Capacity of Broiler Chicks During Starter Phase Under Cold Stress. *Pakistan Journal of Zoology* 56: 2735-2742. <https://dx.doi.org/10.17582/journal.pjz/20221013091007>
  - 42) Awan, A.K., Sultana, N., Khan, R.A., Sultana, R., Kalsoom, U., Sahibzada, F.A., **R.U. Khan**, Khan, N.A., Khan, N.A., Zaman, S.H., Shah, M.S. and Shah, A.A. 2024. Antioxidant and Antidiabetic Potentials of *Punica granatum* Peel Extracts in Alloxan Induced Diabetic Albino Rats. *Pakistan Journal of Zoology* 56: 2685-2694. <https://dx.doi.org/10.17582/journal.pjz/20220515110519>
  - 43) Lou, W., Wu, W., Guo, H., Xiao, S., **R.U. Khan**, Zhang, X., Li, G. and Dai, S. 2023.

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- 44) Hafeez, A., Piral, Q., Naz, S., Almutairi, M.H., Alrefaei, A.F., Ayasan, T. **R.U. Khan**, and Losacco, C. 2023. Ameliorative effect of pomegranate peel powder on the growth indices, oocysts shedding, and intestinal health of broilers under an experimentally induced coccidiosis condition. *Animals* 13, 3790. <https://doi.org/10.3390/ani13243790>
  - 45) Bingqian, N., Shah, A.A., Marta M., Wanapat, M., **R.U. Khan**, Ahmad, S., Ullah, S., Khan, M.S. and Shah, M.K., 2023. Insect bioactive compounds and their potential use in animal diets and medicine. *Entomological Research* 53: 429-443 *Research* <https://doi.org/10.1111/1748-5967.12682>
  - 46) Imtiaz, M., Chand, N., Naz, S., Alhidry, I.A., Gul, S. and **R.U. Khan**. 2023. Effects of dietary inclusion of Moringa oleifera methanolic extract on productive performance, humoral immunity and nutrient digestibility in Japanese quails. *Journal of Applied Animal Research* 51: 743-748. [10.1080/09712119.2023.2278878](https://doi.org/10.1080/09712119.2023.2278878)
  - 47) Hafeez, A., Ahmad, I., Naz, S., Alonaizan, R., Al-akeel, R.K., **R.U. Khan**, Tufarelli, V. 2023. Effect of Lemon (*Citrus limon*, L.) Peel Powder on Oocyst Shedding, Intestinal Health, and Performance of Broilers Exposed to *E. tenella* Challenge. *Animals* 13, 3533. <https://doi.org/10.3390/ani13223533>
  - 48) Subhan, F., Chand, N., Naz, S., Alonaizan, R., Hu, H., Shamsi, S., and **R.U. Khan**. 2023. Effect of green tea (*Camellia sinensis* L.) as antimicrobial agent on growth performance and ileal histomorphology of broiler chickens. *Journal of Applied Animal Research* 51:771-775 <https://doi.org/10.1080/09712119.2023.2283183>
  - 49) Nasir, J.A., Chand, N., Naz, S., Alhidary, I.A., **R.U. Khan**, Batool, S., Zelai, N.T., Pugliese, G., Tufarelli, V. and Losacco, C. 2023. Dietary Oyster Mushroom (*Pleurotus ostreatus*) Waste Inhibits Experimentally Induced *Eimeria tenella* Challenge in Japanese Quails Model. *Animals* 13, 3421. <https://doi.org/10.3390/ani13213421>
  - 50) Raza, M.H., Tahir, M., Naz, S., Alhidary, I.A., **R.U. Khan**, Losacco, C., Tufarelli, V. 2023. Dried Date (*Phoenix dactylifera* L.) Meal Inclusion in the Diets of Broilers Affects Growth Performance, Carcass Traits, Nutrients Digestibility, Fecal Microbiota and Economics. *Agriculture* 13, 1978. <https://doi.org/10.3390/agriculture13101978>
  - 51) Khan, M., Chand, N., Khan, S., Naz, S., Alrefai, A.F., Almutairi, M.K., Sifa, D. and **R.U. Khan**. 2023. Partial and Total Replacement of Soybean Meal with maggot larvae meal in Broiler Chicken Diets: Impact on growth performance, nutrients digestibility, Haematological Parameters and Intestinal Histomorphology. *Livestock Science* 277: 105355. <https://doi.org/10.1016/j.livsci.2023.105355>
  - 52) Hafeez, A., Ali, S.S., Akhtar, J., Naz, S., Alhidary, I.A., Israr, M. and **R.U. Khan**. 2023. Garlic (*Allium sativum*), fenugreek (*Trigonella foenum-graecum*) and coriander (*Coriandrum sativum*): performance, nutrient digestibility and blood metabolites in broilers. *Journal of Applied Animal Research*, 51:1, 624-629. [10.1080/09712119.2023.2264966](https://doi.org/10.1080/09712119.2023.2264966)
  - 53) Ullah, N., Khan, M. T., Naz, S., Alhidary, I. A., **R.U. Khan**, Losacco, C., Pugliese, G., & Tufarelli, V. 2023. Blood metabolic pattern and somatic cells dynamic in Achai and Holstein Friesian cows during transition period. *Reproduction in Domestic*

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- 54) Aslam, B., Hussain, A., Faisal, M.N., Sindhu, Z.D., **R.U. Khan**; Alhidary, I.A., Naz, S., Tufarelli, V. 2023. Curcumin Co-Encapsulation Potentiates Anti-Arthritic Efficacy of Meloxicam Biodegradable Nanoparticles in Adjuvant-Induced Arthritis Animal Model. *Biomedicines* 2023, 11, 2662. <https://doi.org/10.3390/biomedicines11102662>
  - 55) Hafeez, A., Hassni, S.F., Naz, S., Alonaizan, R., Al-Akeel, R.K, Dai, S., Shamsi, S. and **R.U. Khan**. 2023. Impact of grape (*Vitis vinifera*) seed extract on egg production traits, nutrients digestibility, lipid peroxidation and fertility of golden laying hens (*Gallus gallus*) during early stage of production. *Veterinary Quarterly* 43: 1-7 <https://doi.org/10.1080/01652176.2023.2262543>
  - 56) Saeed, M., Afzal, Z., Afzal, Z., **R.U. Khan**, Elnesr, S.S., Alagwany, M. and Chen H. 2023. Food free of antibiotic residues: Use of postbiotic as growth promoter in poultry industry- A review of current knowledge and future prospects. *Food Science of Animal Resources* 43:1111-1127. <https://doi.org/10.5851/kosfa.2023.e52>
  - 57) Khan, S., Chand, N., Naz, S., Alrefaei, A.F., Albeshr, M.F., Losacco, C. and **R.U. Khan**. 2023. Response to dietary methionine and organic zinc in broilers against coccidia under *Eimeria tenella*-challenged condition. *Livestock Science*, 276 p.105317. <https://doi.org/10.1016/j.livsci.2023.105317>
  - 58) Fu, C., Shah, A.A., **R.U. Khan**, Khan, M.S. and Wanapat, M. 2023. Emerging trends and applications in health-boosting microorganisms-specific strains for enhancing animal health. *Microbial Pathogenesis* <https://doi.org/10.1016/j.micpath.2023.106290>
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- 4) Khan, K., SM Suhail, RU, Khan, Sarzamin Khan, MS Qureshi, I Khan. 2017. Study on growth parameters and transmission of genetic worth in local rabbits. Proceedings of the 4<sup>th</sup> International Dairy Science Conference and Industrial Exhibition on Dairy Science Park, November 1-5, 2017. Selcuk University, Konya, Turkey.
- 5) Chand, N, F. Wahab and **R.U. Khan**. 2017. Effect of fenugreek (*Trigonella foenum-graecum*) seed supplementation on egg quality and production performance of spent layers. XXIII European Symposium on the quality of poultry meat and egg. Edinburgh University
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- 8) Sultan A, S. Khan, **R. U. Khan** and M. Ilyas, 2015. A yeast carbohydrate fraction improved growth performance, apparent metabolizable energy and mineral retention by broiler at 21 day post-hatch. Australian Poultry Science Symposium. P: 26

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- 12) I. M. Khan, M. S. Qureshi, **R.U. Khan**, U.Saddique, A. Khan, S. M. H. Andrabi, A. Gohar, M. Younas, H. Khan, H. Rehman and Zakirullah. 2015. Cross Breeding Promotes Deterioration of Semen Quality in Cattle. International Symposium on Dairy Animal Reproduction (ISDAR), March 30-31 2015, Lahore Pakistan.
- 13) Zakirullah, H. Khan, M. S. Qureshi, M. Younas, A. Gohar, **R. U. Khan**, S. S. Afridi, H. Rehman and U. Saddique, I. M. Khan and A. Khan. 2015. International Symposium on Dairy Animal Reproduction (ISDAR), March 30-31 2015, Lahore Pakistan.
- 14) Muhammad Subhan Qureshi, **Rifat Ullah Khan** and Abdul Majid. 2013. Semen traits, seminal plasma antioxidant enzymes and trace minerals as influenced by different levels of dietary vitamin E in Beetal bucks. Proceedings of 2<sup>nd</sup> International Dairy Science Park, Nov 18-20, University of Agriculture, Peshawar, Pakistan.
- 15) Asar Ali Shah, **Rifat Ullah Khan**, Muhammad Saleem Khan, Sarzamin Khan, Nazir Ahamd and Muhammad Humayun. 2013. Effect of different levels of vitamin E on the performance traits, serum antioxidant enzymes and trace minerals in Japanese quail (*Coturnix coturnix* Japonica). Proceedings of 2<sup>nd</sup> International Dairy Science Park, Nov 18-20, University of Agriculture, Peshawar, Pakistan. Page: 142.
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  - 24) Zia-ur-Rahman, Shaukat Ali Shaukat, Abdul Majeed Cheema, **Rifat Ullah Khan** and Mansur Abdullah. 2009. Immunohistochemistry of adenohipophysis in lactating and non lactating camels (*Camelus dromedarius*). 35<sup>th</sup> All Pakistan Science Conference. Karachi University Journal of Science 37: 1 & 2.
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- 34) Zia-ur-Rahman, Ayesha Bibi, Nighat Bhatti, Naheed Abbas, **Rifat Ullah Khan** & Hasbeeb Anwar. 2008. Metabolic, minerals and thyroid hormones profile in normal and hemophilic patients. 18<sup>th</sup> National Chemistry Conference, Lahore, Pakistan. 25-27<sup>th</sup> February. Page No. 76.
- 35) Zia-ur-Rahman, Rahat Amin, Nighat Bhatti, Naheed Abbas, **Rifat Ullah Khan** & Hasbeeb Anwar. 2008. Metabolic, minerals and thyroid hormones profile of young male rats fed marijuana. 18<sup>th</sup> National Chemistry Conference, Lahore, Pakistan. 25-27<sup>th</sup> February. Page No. 105.
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- 1) Sania Subhan Qureshi, Rifat Ullah Khan, M. Subhan Qureshi, Sher Bahadar Khan, Shakoor Ahmad and Mithat Direk. 2017. Proceedings of the 4<sup>th</sup> International Dairy Science Conference and Industrial Exhibition on Dairy Science Park, November 1-5, 2017. Selcuk University, Konya, Turkey.
- 2) Muhammad Subhan Qureshi, Zahoor Ul Hassan, Shakoor Ahmad, Rifat Ullah Khan, Asad Sultan, Muhammad Tahir (sr) and Rashid Aman (editors). In: Proceedings of the 2<sup>nd</sup> International Science Park. Organized by Faculty of Animal Husbandry & Veterinary Sciences, The University of Agriculture, Peshawar-25120, Pakistan. Nov, 18-20, 2013. ISBN: 978-969-422-001-7
- 3) **Khan, R.U.**, S. Naz and V. Tufarelli. 2012. Hemp seeds and broiler performance. LAP Lambert Academic Publishing, Germany. (ISBN 978-3-659-11926-2)

### Book chapters

- 1) Chatha, A.M.M., Naz, S., Naz, S., **R.U. Khan**, Nawaz, A. (2023). Heavy Metal Pollution in Water from Anthropogenic and Natural Activities and the Remediation Strategies. In: Ahmad, M.I., Mahamood, M., Javed, M., Alhewairini, S.S. (eds) Toxicology and Human Health . Springer, Singapore. [https://doi.org/10.1007/978-981-99-2193-5\\_2](https://doi.org/10.1007/978-981-99-2193-5_2)
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### **International Scientific Achievement**

- a. Enlisted in 2% global scientists in all disciplines in 2020 compiled by Stanford University, California, USA.
- b. Enlisted in 2% global scientists in all disciplines in 2021 compiled by Stanford University, California, USA.
- c. Enlisted in 2% global scientists in all disciplines in 2022 compiled by Stanford University, California, USA.
- d. Enlisted in 2% global scientists in all disciplines in 2023 compiled by Stanford University, California, USA.
- e. Ranked No 1, for academic publications in the area of animal and veterinary sciences by research.com

### **Scholarship won**

HEC 5000 Indigenous PhD Scholarship Batch IV 2007-2011

HEC Merit Talent Scholarship (M.Sc Hons) 2005

### **Awards**

1. Research Productivity Award-2012 (Pakistan Council for Science and Technology Islamabad, Pakistan)
2. Research Productivity Award-2013 (Pakistan Council for Science and Technology Islamabad, Pakistan)
3. Research Productivity Award-2015 (Pakistan Council for Science and Technology Islamabad, Pakistan)
4. Research Productivity Award-2017 (Pakistan Council for Science and Technology Islamabad, Pakistan)
5. Prof. Dr. Samia Jalali 5<sup>th</sup> Gold Medal in Physiology by The Applied Zoological Society of Pakistan, Government College University, Faisalabad, Pakistan

### **Projects Won as principal investigator**

<b>Title of project</b>	<b>Amount (Rs)</b>	<b>Funding agency</b>	<b>Year of completion</b>
Reproductive characteristics of Beetal male goats as influence by the dietary supplementation of alpha-tocopherol	0.5 Million	Higher Education Commission (HEC) of Pakistan	2015
Green synthesis of selenium nanoparticles and their impact on meat and egg type birds	2.2 millions	Pakistan Science Foundation	Ongoing

### Projects as Co-principal Investigator

Title of project	Amount (Rs)	Funding agency	Year of completion
Utilization of maggots as an alternative animal origin protein on the production performance of meat and egg-type birds	2.00 million	Pakistan Science Foundation	Completed
Towards antibiotic free treatment: Role of Hydroxamic acids in bacterial and fungal pathogens of commercial Poultry Birds	4.77 Millions	Higher Education Commission of Pakistan	In progress

### Students supervised as a major supervisor (PhD)

Serial No.	Name of student	Research topic	Year of completion
1.	Shah Murad Khan	Studies on association of Calcium dynamics with reproductive, metabolic and udder health status in postpartum Holstein-Friesian and their crossbred dairy cows under subtropical condition	2024

### Students supervised as a major supervisor (M.Phil)

Serial No.	Name of student	Research topic	Year of completion
1	Farhad Shoukat	Association of blood calcium with luteal activity and somatic cell count in postpartum achai and cross bred cows	2020
2.	Fasiha Kamal	Effect of organic selenium on blood progesterone, metabolites, milk yield and service period of jersey cows	2019
3.	Hammad Ullah	Effect of Yeast based selenium on postpartum corpus luteal activity, enegery balance and milk yield in Achai dairy cows	2018
4.	Ibrar Muhammad Khan	Comparison of fresh and frozen semen quality in pure and cross bred cattle.	2014
5.	Muhammad Adnan Khan	Effect of different equilibration time on post thaw cryopreseved semen quality of cattle and buffalo breeds	2014
6.	Hamid-ur-Rahman	Relationship of age and breed with libido of cattle bull	2014

## Students supervised as a co-supervisor

### PhD students

Name of student	Department	Research topic	Year of completion
Zia-ur-Rahman	Poultry Science	Effect of high ambient temperature on performance, immunity and antioxidant status in four broiler strains	2017
Momin Khan	Poultry Science	Assessment of maggot meal as substitute of soybean meal in the ration of meat and egg type birds	2019
Abdul Jabbar	Animal Nutrition	Investigation of enzymes and alpha-D3 on the performance, bone quality and nutrients digestibility of broiler chickens	2020
Najmul Saqib	Livestock, Breeding and Genetics	Stress factors effecting sustainable dairy farming and their improvement strategies for district Peshawar	2022
Waqas Alam	Poultry Science	Evaluation of growth performance, stress, immunity status and production performance of broiler breeders under cage versus floor systems	2022

### MSc (Hons)

Name of student	Department	Research topic	Year of completion
Hafiz AbdulMajid	Livestock Management	Reproductive characteristics of Beetal male goats as influence by the dietary supplementation of alpha-tocopherol	2013
Hafiz ur Rahman	Livestock Management	Effect of zinc on semen parameters quality of male bucks	2013
Shams-ul-Hayat	Poultry Science	Comparison of natural and artificial insemination in Japanese quails	2013

		( <i>Coturnix japonica</i> )	
Muhammad Shoib Khan	Poultry Science	Effect of stocking density on performance and oxidative stress and behaviour of broilers	2013
Momin Khan	Poultry Science	Effect of various semen extenders on quail eggs fertility hatchability	2013
Tauqeer Ahsan	Animal Nutrition	Use of hemp seed ( <i>Cannabis sativa</i> ) cake as a protein source for broiler chicken	2014
Muhammad Ali Shah	Animal Nutrition	Effect if dietary probiotic on growth performance, meat quality and intestinal microflora in broiler chicks	2014
Muamber shah	Livestock Management	Effect of vitamin C on semen production of different breeds of cattle	2014
Muhammad Tahseen	Animal Nutrition	Additive effect of <i>Nigella sativa</i> and ginger on the performance of broiler chicks	2014
Mudeer Gul	Livestock	Effect of different feeding times on the performance of HF dairy cattle during summer at Harichand	2014
Muhammad Najmu Saqib	Livestock	Association of changes in post-partum metabolism an stress parameters with resumption of ovarian cyclicity in exotic dairy cattle	2014
Alam Zeb	Poultry Science	Silk worm pupae as potential alternative and cheap source of protein supplementation in broiler	2015
Safiullah	Poultry Science	Effect of natural antioxidants on the performance of summer stressed broiler	2018
Munib Ahmad	Poultry Science	Effect of milk thistle on the performance and blood biochemicals of summer stressed broiler	2018
Nazish Aman	IBGE	Comparative sensitivity and efficacy of organic acid against opportunistic bacteria in toe web infection	2018
Faisal Amin	Animal Nutrition	Performance and nutrients utilization of broiler chicks fed diets supplemented with combination of phytase and protease	2018
Sardar Hussain	Animal Nutrition	The effects of 1-alpha hydroxycholecalciferol, phtase and protease supplementation on the performance, bone quality and nutrients utilization of market weight chickens.	2018

Zahir Ullah	Poultry Science	Comparative efficacy of organic and inorganic zinc on the performance, intestinal histology and lipid peroxidation in broilers	2018
AAmir Khan	Animal Nutrition	Investigating the efficiency of Morigna oleifera leaf extract on the carcass quality, immunity, blood metabolites and lipid peroxidation in broiler chickens	2019
Rafiullah	Animal Nutrition	Estimation of Aflatoxin B1 different feed samples collected from District Peshawar, Mardan and Malakand	2019
Maryam Shah	IBGE	Determining the presence of iron regulating genes mutations in Beta thesemia major patients of KP, Pakistan	2019
Muhammad Mushtaq	Animal Nutrition	Effect of Potenic on immunity, antioxidant status and nutrient digestibility of broiler chicks	2019
Madeeha Ihsan	IBGE	Determining the associated genes polymorphism with diabetic nephropathy in diabetes mellitus type 2 patients of KPK population	2020
Mamoona Jehanzeb	IBGE	Genetic association of gene polymorphism with diabetic retinopathy	2020
Naseeb Ullah	Animal Nutrition	Association of metabolic response with somatic cell count in Achai and crossbred cows during transition period	2020
Hassan Amin	Animal Nutrition	Association of trace minerals with oxidative stress during transition period in Achai and Crossbred dairy cows	2020
Mah Noor	Poultry Science	Effect of dried Tamrind pulp supplementation on performance, oxidative stress and immune response in summer stressed broiler	2020
Maham Shah	Poultry Science	Effect of ginger and onion supplementation on oxidative stress and immunity in heat stressed broiler	2020
Muhammad Israr	Poultry Science	Effect of organic zinc and grape seed powder on the performance of summer stressed broilers	2020
Mehreen Dost Muhammad	Poultry Science	Exploring the efficacy of dried tomato pomace and zinc in broilers	2021

Syeda Adia Fatima	Poultry Science	Effect of fennel seed as an antioxidant and immune stimulant in broiler	2021
Saad Ullah	Poultry Science	Effect of dietary inclusion of grape seeds extract (GSE) on egg quality, production performance and antioxidant activities at peak production in laying hens	2021
Shah Faisal Hassni	Poultry Science	Effect of supplementation of feed with grape seeds extract (GSE) on performance, nutrient digestibility and blood profile at early production period in laying hens	2021
Anwar Shah	Theriogenology		2021
Najam ul Saqib	Poultry Science	Effect of dietary graded level of dried orange ( <i>Citrus sinensis</i> ) pulp on growth performance, liver functions and nutrient utilization by broiler at day 35	
Fahad Gul	Animal Nutrition	Relation of blood calcium with milk production, oxidative stress and reproductive performance of post-partum Achai and crossbred cows	2021
Faiza Hayat	IBGE	Investigating the association of RANKL and OPG genes mutation with progression of breast cancer to bone metastasis	2021
Shehla Khanum	IBGE	Extracellular matrix degrading genes MMP8 and MMP9 polymorphisms association with breast cancer risk in women of Khyber Pakhtunkhwa	2021
Hidayat Ullah	Animal Nutrition	Comparative study on mycotoxin-Aflatoxin B1 and nutrients profile of poultry and cattle feeds collected from different farms of district Buner, Mardan and Charsada	2021
Yumna Khan	IBGE	Determining the association of polymorphism in BRCA1, BRCA2 and TP53 genes with breast cancer risk in Khyber Pakhtunkhwa	2021
Wafa Sombal	IBGE	Risk association of HER1 (R497K) HER2 (1655V) polymorphisms with breast cancer	2022
Murad Ali	Animal Nutrition	Dietary supplementation of black garlic on the performance, gut morphology, digestibility and antioxidant status of broiler chicks	2022

Haseeb Raza	Animal Nutrition	Evaluation of dry dates as corn replacement on the growth performance, gut morphology and nutrient digestibility in broiler chicks	2022
Shah Faisal Hassani	Poultry Science	Effect of supplementation of feed with grape seed extract (gse) on performance, nutrient digestibility and blood profile at early production period in laying hens	2022
Saad Ullah	Poultry Science	Effect of dietary inclusion of grape seed extract (gse) on egg quality, production performance and anti-oxidant activity at peak production in laying hens	2022
Muhammad Muddasir	Animal Nutrition	Investigating the growth performance, meat quality, nutrients digestibility, gut morphology and blood metabolites in finisher phase of broiler chicks supplemented with dietary emulsifier lysophospholipids	2022
Muhammad Hamayun	Livestock	Comparative study of Jersey, Achai and crossbred of Jersey and Achai at cattle breeding and dairy farm Harichand	2023
Darwish Khan	Poultry Science	Effect of supplementation of diet with Azolla pinnat meal on growth performance, carcass characteristics and intestinal histomorphology in Japanese quails	2023
Shah Zeb	Poultry Science	Effect of super worm oil supplementation on growth performance of broilers	2023
Asad Ullah	IBGE	Association of human epidermal growth factor receptor (HER1 and 2) gene polymorphisms with colorectal cancer risk in khyber pakhtunkhwa	2023
Qamber Piral	Poultry Science	Effect of supplementation of pomegranate peel powder on growth performance, lesion score and histopathology of coccidian infected broilers.	2023
Israr Ahmad	Poultry Science	Effect of dietary inclusion of lemon peel powder on performance, cecal lesion scoring and histopathology in broilers challenged with coccidiosis	2023
Ateeb Shoukat	Animal	Determining the utilization of	2023



	Nutrition	extruded rapeseed meal in poultry	
Abdul Samad Basit	Animal Nutrition	Impact of nutritional protease addition on the growth performance, carcass characteristics nutrients digestibility, caecal microbiota and immune status of broiler chicks	2023
Hamza Khan	IBGE	Validating the association of breast cancer gene (BRCA1 and BRCA2) polymorphisms in familial cases of breast cancer patients	2023
Zahoor Elahi	IBGE	The association of HLADRB1 alleles with rheumatoid arthritis in population of Khyber Pukhtunkhwa, Pakistan	2023
Asad Ullah	IBGE	Association of human epidermal growth factor (HER1 and 2) gene polymorphism with colorectal cancer risk in khyberpukhunkhwa	2023
Ateeb Shoukat	Animal Nutrition	Determining the utilization of extruded rapseed meal in broiler chickens	2023
Zahoor Ilahi	IBGE	The association of HLA DRB1 alleles with rhemuatioid arthritis in population of Khyber Pakhtunkhwa, Pakistan	2023
Atif ur Rehman	Poultry Science	Impact of dietary inclusion of zinc methionine (Zn-Met) on oxidative status of quails raised in open sided house	2023

### Reviewer of Journals (Impact factor journals only)

Reproduction in Domestic Animals; Toxicology Reports; Poultry Science; Animal Science; World's Poultry Science; Archives of Animal Breeding; African Journal of Biotechnology; International Journal of Biometeorology; Vitamin and Trace Element; Reproduction, Fertility and Development; African Journal of Ecology; Agriculture Research Journal, Acta Agriculturae Scandinavica, Section B - Plant Soil Science, Czech Journal of Animal Science, Animal Production Science, Journal of the Science of Food and Agriculture, Annals of Animal Science, Journal of Applied Animal Research, Avian Biology Research, Journal of Animal Physiology and Animal Nutrition, European Poultry Science, International Journal of Vitamin and Nutrition Research, Biomed Research International, The Philippine Agricultural Scientist, Archivos de Medicina Veterinaria, BMC Veterinary Research, Acta histochemica, Journal of Applied Poultry Research, Poultry Science Japan, Animal Production Science, Springer Plus, Revista Brasileira de Zootecnia, Critical Review in Food Science and Nutrition, Journal of Animal and Plant Science (JAPS), Food Science and Nutrition, Journal of Veterinary Medicine, Acta Tropica, Critical Review in Microbiology, British Poultry Science, South African Journal of Animal Science, Environmental Science and Pollution Research, Anais da Academia Brasileira de

Ciência, Frontier in Veterinary Science, Journal of Functional Food, Agriculture,

**Member of the Editorial board of the Journals (Impact factor only)**

- Guest Editor of “Sustainability” special issue (2021-2023), Nanobiotechnology: Animal Production, Health and Welfare
- Guest editor for the topic “Edible Insects as Feed and Food: Opportunities and Challenges” for the journals (Agriculture, Animals, Dietics, Foods and Insects) [https://www.mdpi.com/topics/Edible\\_Insects\\_Feed\\_Food](https://www.mdpi.com/topics/Edible_Insects_Feed_Food)
- Guest editor for the topic The Impact of Climate Change on Livestock: Mitigation Strategies and Solutions in Journal Science Progress <https://journals.sagepub.com/page/sci/special-collection/impact-of-climate-change-on-livestock?pbEditor=true>
- Guest editor for the topic “Ante-mortem handling and slaughtering stress in broilers: Effects and remedies <https://www.frontiersin.org/research-topics/46494/ante-mortem-handling-and-slaughtering-in-broilers-effects-and-remedies>
- Associate Editor, International Journal of Poultry Science
- Associate Editor Sarhad Journal of Agriculture
- Asian Council of Scientific Editors

**External Examiner for Viva Voce**

Year	Student name	Degree	Department	Host university
2012	Sobia Kanwal	M.Phil	Wildlife and Fisheries	G.C. College University, Faisalabad, Pakistan
2013	Rana Muhammad Arshad	M.Phil	Wildlife and Fisheries	G.C. College University, Faisalabad, Pakistan
2020	Qura-Tul-Ain	M.Sc	Department of Zoology	G.C. College University, Faisalabad, Pakistan
2020	Sarfraz Nawaz	M.Sc	Department of Zoology	G.C. College University, Faisalabad, Pakistan

**EMPLOYMENT RECORD**

Scale of Pay	Designation	Dates	Name and address of
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		<b>From To</b>		<b>Employer</b>
BS-17	Veterinary Officer	3-3-2007	19-08-2007	Livestock and Dairy Development Peshawar, Pakistan
BS-19	Assistant Professor (TTS)	31-1-2012	19-05-2020	The University of Agriculture, Peshawar, Pakistan
BS-20	Associate Professor (TTS)	20-5-2020	Upto date	The University of Agriculture, Peshawar, Pakistan

## **Courses Taught**

### **Undergraduate (DVM)**

1. Endocrinology and Neuromuscular Physiology (Theory and Practical)
2. Digestive Physiology and Lactation (Theory and Practical)
3. Cardiovascular, Respiratory and Renal Physiology (Theory and Practical)
4. General Veterinary Medicine (Theory and Practical)
5. Epidemiology and Veterinary Public Health (Theory and Practical)
6. Biochemistry (Theory and Practical)
7. Vet. Physiology-II
8. Vet. Physiology-I

### **Postgraduate**

1. Artificial Insemination (Theory and Practical)
2. Physiological Biochemistry of Preservation of Semen (Theory and Practical)
3. Rodent Management (Theory and Practical)
4. Avian Reproduction (Theory and Practical)

### **Workshops Attended**

1. One day provincial orientation and consultative workshop ‘Livestock for Life’ Project Relief International 8<sup>th</sup> March, 2012.
2. One day workshop on “Bringing innovations in food value chain sustainable development in KP and FATA” 29<sup>th</sup> March, 2017. Jointly organized by Dairy Science Park and The University of Agriculture Peshawar, Pakistan
3. Two days workshop on “Conventional and molecular diagnosis of *Clostridium perfringens* for the control of enterotoxaemia in small ruminants. 2-3 May 2019. Organized by Department of Animal Health, The University of Agriculture Peshawar, Pakistan

### **Symposiums attended**

1. One day Symposium Livestock production- National and global perspective organized by Faculty of Veterinary Science and Faculty of Animal Husbandry, On March 17, 2011, 50 years of Advancing Agricultural Technology and Training Golden Jubilee Celebrations Year 2011, University of Agriculture, Faisalabad.

### **Trainings**

1. Ensuring Training Effectiveness, 2012, jointly conducted by (Higher Education Commission of Pakistan) and The University of Agriculture, Peshawar.
2. Two days training on Election 2018

### **Seminar Attended**

1. One day seminar Novel corona virus emergence: Threats and preventions, 27<sup>th</sup> Feb, 2020. College of Veterinary Sciences, The University of Agriculture, Peshawar, Pakistan

### **Membership of Societies**

International Society of Camelid Research and Development 2008 up to date (ISOCARD)

Australian Society of Animal Production 2011 up to date

International Society of Biometerology 2014-2015

Scientific & Technical Research Association Life Time

### **Guest speaker (invited speaker)**

Novel feed additives improving poultry production and health, bioactive principles and beneficial applications: The trends and advances. 8 Nov, 2017, Ergis University, Turkey

### **Administrative Assignments**

- Lab In-charge of Physiology Lab
- Seminar in charge of college of veterinary sciences
- Member board of studies of CVS
- Member DTRC of Dr. Ijaz Ahmad, Livestock Department
- Member Digital Library, HEC, Islamabad
- Developed 16 post-graduate courses for Physiology (approved from board of studies)
- Organizer, one-day seminar on “Novel Corona Emergence, Threats and Preventions” held on 27<sup>th</sup> February, 2020, at The University of Agriculture, Peshawar
- Organized, “Hand-on workshop of artificial insemination in goat” on 24<sup>th</sup> October 2023 at college of veterinary sciences, UAP
- Organized 2-days National Hands on training workshop “The art of Taxidermy”. 20<sup>th</sup> and 21<sup>st</sup> March, 2023. Government College University, Faisalabad, Pakistan
- Attended workshop of 4<sup>th</sup> international conference of PNQAHE and annual general

meeting. March 3-5, 2024. Islamabad