

ABDUR RAUF KHALID

Assistant Professor (OPS), Animal Nutrition — Director, Student Affairs

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EDUCATION

Ph.D., Animal Nutrition and Feed Science — Nanjing Agricultural University, China	2017–2021
M.Sc. (Hons.), Livestock Management — University of Agriculture, Faisalabad, Pakistan	2010–2012
DVM — University of Agriculture, Faisalabad, Pakistan	2005–2010
Ph.D. thesis: Effects of Moringa oleifera leaf powder supplementation on growth and reproduction performances, jejunal microbiota and mucosal tissue in heat-stressed rabbits. M.Sc. thesis: Quality and adulteration aspects of milk sold in different areas of Faisalabad.	

PROFESSIONAL EXPERIENCE

- **Assistant Professor (OPS)**, Dept. of Livestock & Poultry Production, FVS, BZU Multan (Jul 2023–date); **Director, Student Affairs**, FVS, BZU Multan (Jan 2022–date)
- **Lecturer (Permanent, BS-18)**, FVS, BZU Multan (Sep 2014-Jul 2023); **Lecturer (Adhoc)**, FVS, BZU Multan (Dec 2013-Sep 2014)
- **Administrative roles:** Manager, Experimental Livestock Farm (2013-16); Incharge, Animal Nutrition & Livestock Management Labs; Member/Secretary, Departmental Disciplinary Committee; Member, Faculty & Departmental Boards of Studies; External Examiner (M.Phil, NUST Islamabad); Academic Advisor, DVM sessions 2011-16 & 2023-28

SELECTED PUBLICATIONS (IMPACT-FACTOR INDEXED) — 18 TOTAL

1. Huda MNU, ... Khalid AR, Shabbir MAB (2025). Molecular detection and prevalence of colistin-resistant E. coli in poultry and humans: a one health perspective. *Braz J Microbiol.* (IF 1.90)
2. Ahmad M, ... Khalid AR, ... Sattar A (2025). Understanding the impact of moxifloxacin on immune function. *PLOS ONE* 20(6): e0326272. (IF 2.90)
3. Rabail R, Khalid AR, et al. (2025). Biosafety assessment of edible oil blended from flax, coconut, sunflower, and olive oils in Sprague Dawley rats. *J Agric Food Res* 20:101768. (IF 4.80)
4. Rabail R, ..., Khalid AR, et al. (2024). Edible oil blend improves health consequences of high-fat/high-cholesterol diet in Sprague-Dawley rats. *Front Nutr* 11:1469601. (IF 4.00)
5. Lail NU, ..., Khalid AR, et al. (2023). Biosynthesis and characterization of ZnO nanoparticles using Nigella sativa against coccidiosis in commercial poultry. *Sci Rep* 13(1):6568. (IF 4.99)
6. Rabail R, Sultan MT, Khalid AR, et al. (2023). Clinical, nutritional, and quality assessment of flaxseeds and their supplemented muffins. *CYTA-J Food* 21(1):248-257. (IF 2.47)
7. Abdul Hafeez M, ..., Khalid AR, et al. (2022). Molecular and morphological characterization of Eimeria crandallis isolated from deer. *Life* 12:1621. (IF 3.25)
8. Rabail R, Sultan MT, Khalid AR, et al. (2022). Clinical, nutritional, and functional evaluation of chia seed-fortified muffins. *Molecules* 27:5907. (IF 4.92)
9. **Khalid AR**, Yasoob TB, Zhang Z, Zhu X, Hang S (2022). Dietary Moringa oleifera leaf powder improves jejunal permeability and digestive function via microbiota and mucosal immunity in heat-stressed rabbits. *Environ Sci Pollut Res* 29:80952-80967. (IF 5.19)
10. Abdul Hafeez M, ..., Khalid AR, et al. (2022). Molecular characterization of Toxoplasma gondii in cats and its zoonotic potential. *Pathogens* 11:437. (IF 4.53)
11. Rabail R, ..., Khalid AR, et al. (2022). Nutritional, functional, and therapeutic assessment of garden cress seed-fortified muffins. *J Food Process Preserv* 46:e16678. (IF 2.60)
12. Rabail R, ..., Khalid AR, et al. (2022). Side effects and adverse clinical cases reported after COVID-19 immunization. *Vaccines* 10(4):488. (IF 4.96)
13. Yasoob TB, **Khalid AR**, Zhang Z, Zhu X, Hang S (2022). Liver transcriptome of Moringa-supplemented rabbits under heat stress: lipid metabolism and thermotolerance gene regulation. *Nutr Res* 99:25-39. (IF 3.87)
14. Rabail R, ..., Khalid AR, et al. (2021). Nutritional and lifestyle changes for minimizing recovery period in home-quarantined COVID-19 patients, Punjab. *Food Sci Nutr* 00:1-24. (IF 3.55)
15. Yasoob TB, Yu D, **Khalid AR**, et al. (2021). Oral Moringa oleifera leaf powder relieves oxidative stress and modulates mucosal immunity and cecal microbiota under heat stress in NZW rabbits. *J Anim Sci Biotechnol* 12(66):1-15. (IF 6.17)
16. Rabail R, ..., Khalid AR, et al. (2021). Overview of chia seed bioactive peptides as an emerging nutraceutical food. *Front Biosci* 26(9):643-654. (IF 3.11)
17. **Khalid AR**, Yasoob TB, Zhang Z, Yu D, Feng J, Zhu X (2020). Oral Moringa oleifera leaf powder improves productive performance via intestinal health in rabbits under chronic heat stress. *J Therm Biol* 93:102680. (IF 3.18)
18. Nazir MM, ..., Khalid AR, Lindsay DS (2014). Neospora caninum prevalence in dogs raised under different living conditions. *Vet Parasitol* 204(3-4):364-368. (IF 2.82)

Plus 3 Scopus-indexed/HEC-recognized (non-IF) articles and 9 conference abstracts (full list available on request).

RESEARCH PROJECTS (AS PI / CO-I)

- Valorization of corncob waste into a xylo-oligosaccharide feed additive mitigating acrylamide toxicity & improving gut health

POSTGRADUATE SUPERVISION (M.PHIL)

11 completed (2025-26) · **6 underway**

- PARB, 19.08M PKR (*Submitted*)
- Reduction of methane emissions from ruminants via prebiotics/nutraceuticals — PARB, 19.2M PKR (*Submitted*)
- Urdu-based digital content for livestock nutrition knowledge among farmers — PARB, 9.98M PKR (*Submitted*)
- Biodegradable nanoparticles for targeted nutrient delivery mitigating heat stress in rabbits — NRPU-HEC, 1.9M PKR (*Submitted*)
- Nutritional strategies mitigating oxidative stress: growth, reproduction, gut microbiota & mucosal integrity — NSFC, China, 78M Yuan (*Completed*)
- Chia seed supplementation ameliorating heat stress in rabbits — BZU Multan (*Completed*)
- Fresh vs. preserved fodder (silage) effects on milk yield/composition in cows — BZU Multan (*Completed*)

- Lycopene supplementation – growth, antioxidant & reproductive health in heat-stressed rabbits
- Emulsifier & lipase enzyme – broiler growth and carcass quality on low-energy diet
- Bacillus licheniformis serine-protease – broiler growth, digestibility & meat quality
- Astaxanthin + nano-selenium – growth, antioxidant & carcass traits in heat-stressed rabbits
- Spirulina + nano-selenium – blood/serum profile & carcass traits in heat-stressed rabbits
- Biosynthesized ZnO nanoparticles (Nigella sativa) – growth & caecal microbiota in rabbits
- Gum Arabic supplementation – growth & immune response in heat-stressed broilers
- Plant-derived vitamin D₃ – mineral metabolism & bone quality in broilers
- Probiotic supplementation – intestinal histomorphometry in E. coli-challenged chickens
- +2 further completed theses (tissue/sperm cryo-survival; silymarin-prebiotic synergy)

COURSES TAUGHT

Undergraduate: Principles of Animal Nutrition · Livestock Feed Resources & Forage Conservation · Principles of Dairy Production · Introduction to Dairy Farming **Postgraduate:** Fundamentals of Animal Nutrition · Feed Resources & Nutritive Value **Diploma:** Livestock Management

CORE SKILLS

GC/GC-MS/MS · Real-Time/Classic PCR · Gut microbiome (metagenomics) & transcriptome analysis · Proximate & amino acid analysis · Feed formulation software · Milk adulterant detection (Lactoscope) · Clinical diagnosis & treatment · Farmer extension/technical advisory

PROFESSIONAL AFFILIATIONS & DISTINCTIONS

Affiliations: World Veterinary Poultry Association (Pakistan Branch); Life Member, Pakistan Biological Safety Association (#66); Registered Veterinary Medical Practitioner & Faculty, PVMC (RVMP-5240 / RVMF-0020); American Society for Microbiology (Global Outreach); UAF Alumni Association; Camel Association of Pakistan. **Distinctions:** Chinese Government Scholarship, PhD 2017–21; University Merit Scholarship & 1st Position, M.Sc.(Hons.) 2010–12.

REFERENCES

Prof. Dr. Hang Suqin — National Center for International Research on Animal Gut Nutrition, Nanjing Agricultural University, China. suqinhang69@njau.edu.cn

Prof. Dr. Faqir Muhammad — Dean, Faculty of Veterinary Sciences, BZU Multan. drfaqirmuhammad@bzu.edu.pk