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Citations	h-index	i10-index
1482	19	38

PROFESSIONAL SUMMARY

Dedicated and detail-oriented cancer researcher with a strong background in oncology, cancer immunology, and nanomedicine, specializing in triple-negative breast cancer and ovarian cancer. I just completed my Ph.D. with a focus on Cancer Biology, with extensive experience in targeted therapy and tumor microenvironment analysis. Proficient in Western blotting, flow cytometry, and advanced microscopy techniques, with a proven track record of peer-reviewed publications in high-impact journals. Passionate about translational cancer research and developing innovative therapeutic strategies. Seeking a Postdoctoral position in cancer research to contribute expertise in tumor biology, drug resistance mechanisms, and experimental oncology while advancing cutting-edge cancer therapies.

POSTDOCTORAL RESEARCH EXPERIENCE

EDUCATION

Ph.D.	Functional Veterinary Medicine Chungbuk National University, Republic of Korea Dissertation: Antineoplastic Effect of Punicalagin Against Triple-Negative Breast and Ovarian Cancers	01-09-2022 to 21-08-2025
	Korean Language Keimyung University, Republic of Korea	01-09-2021 to 29-07-2022
Pg.Dip.	One Health University of Edinburgh, United Kingdom	October 2020 (Online Only)
MPhil.	Clinical Medicine and Surgery University of Agriculture, Faisalabad, Pakistan Dissertation: Comparative efficacies of nano zinc oxide and nano <i>Curcuma longa</i> against third degree burn wound	27-09-2017 to 22-07-2019
DVM	(Doctor of Veterinary Medicine) The Islamia University of Bahawalpur, Pakistan	27-09-2011 to 30-06-2017

SCHOLARSHIPS AND FELLOWSHIPS

- | | |
|--|-----------|
| • Global Korea Scholarship (GKS-G) Scholar, Republic of Korea | 2021-2025 |
| • Global Hope Scholarship, Chungbuk National University, Republic of Korea | 2024 |
| • Commonwealth Distance Learning Scholarship, United Kingdom | 2018-2020 |

AWARDS AND HONORS

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|---|------------------|
| • Graduate School Dean's Award
Chungbuk National University, Republic of Korea | August 21, 2025 |
| • Young Scientist Award | November 7, 2024 |

RESEARCH PROJECTS

- **Research Assistant**
Education-Research Development Group of Cutting-edge Veterinary Science
March 01, 2024 - August 31, 2025
BK21 Four Program (Brain Korea 21 Four)
National Research Foundation of Korea (Ministry of Education), Republic of Korea
- **Research Assistant**
Education-Research Development Group of One-Health Future Veterinary Resource
September 01, 2022 - February 29, 2024
BK21 Four Program (Brain Korea 21 Four)
National Research Foundation of Korea (Ministry of Education), Republic of Korea

PUBLICATIONS

Peer-reviewed Publications

1. **Bhutta, Z.A.**, Kim, D.H., Lee, H.K., and Choi, K.-C. (2026), Evaluation of Punicalagin as a Multi-Targeted Therapeutic Agent Against Endometrial Cancer. *International Journal of Oncology*, 69, 109. <https://doi.org/10.3892/ijo.2026.5922>
2. Ahn, S.H., **Bhutta, Z.A.**, Na, H., Lee, H.K., and Choi, K.-C. (2026), Anti-cancer effects of tangeretin in cervical cancer through reactive oxygen species-induced mitochondrial dysfunction and apoptosis. *Oncology Reports*, 56, 166. <https://doi.org/10.3892/or.2026.9171>
3. Yao, W., Chen, M., Ren, H., Luo, Q., Wang, X., Akhtar, M., **Bhutta, Z.A.**, Peng, M., Nawaz, M.Y., Mehdi, M., Kulya, M.F.A., Fang, R. (2026), Mechanistic Landscape and Farm to Fork Control Strategies for *Streptococcus suis*: an Emerging Foodborne Threat. *Transboundary and Emerging Diseases*, 1603643. <https://doi.org/10.1155/tbed/1603643>
4. **Bhutta, Z.A.**, Kim, C.-W., Na, H., Lee, H.K., and Choi, K.-C. (2026), Punicalagin Inhibits the Growth and Proliferation of Ovarian Epithelial Adenocarcinoma Cells Via Apoptosis and Autophagic Cell Death. *Journal of Biochemical and Molecular Toxicology*, 40, e70908. <https://doi.org/10.1002/jbt.70908>
5. Altaf, N. H., Ayyaz, M., Shahzad, M. Liaqat, W., Ashar, A., Yaqoob, S., Malik, R. A., **Bhutta, Z. A.** (2026). Recent Advances in the Synthesis and Processing of Carbon Nanotubes and Carbon Nanocomposites for Energy Storage, Biomedical, and Environmental Applications. *ChemistryOpen*. <https://doi.org/10.1002/open.202500501>
6. Ahmad M.T., Aiman. U.E., Sarfraz M.T., **Bhutta Z.A.** (2026). Molecular and Phylogenetic Characterization of Infectious Bursal Disease Virus Re-emerging in Backyard Poultry in Pakistan. *Journal of the Hellenic Veterinary Medical Society*, 77(1), 10073–10082. <https://doi.org/10.12681/jhvms.37686>
7. **Bhutta, Z. A.**, Kim, C. W. & Choi, K.-C. (2025). Punicalagin Attenuates Benzo[α]pyrene-Induced Metastasis by Reversing Epithelial-Mesenchymal Transition via Mitochondrial ROS Modulation in Triple-Negative Breast Cancer Cells. *Toxicological Research*. <https://doi.org/10.1007/s43188-026-00338-y>
8. Jeon, S.Y., **Bhutta, Z.A.[†]**, Lee, H. K. & Choi, K.-C. (2026). Inhibitory effect of progesterone on breast cancer progression and migration via the regulation of epithelial-mesenchymal transition. *Oncology Research*. <https://doi.org/10.32604/or.2026.071328> (**Equal First Author**)
9. **Bhutta, Z.A.**, Kanwal, A., Kanwal, T. Transforming Cancer Care by Transitioning from Traditional Chemotherapy to Advanced CAR-T Cell Immunotherapy. *Bio Communications*, 2(1), 13-28. <https://doi.org/10.71320/bcs.0016>
10. Mustafa, G., Hussain, R., Afzal, G., Jabeen, G., Ghaffar, A., Riaz, R., Mohiuddin, M., Mahmood, Y., **Bhutta, Z.A.**, Şahin, T., & Ataya, F. S. (2025). Adverse Impacts of Copper Oxide Nanoparticles on *Rattus norvegicus*: Provocation of Oxidative Stress and Depletion of Antioxidant Enzymes in Multiple Visceral Organs. *Biological Trace Element Research*, 1-12. <https://doi.org/10.1007/s12011-025-04741-8>
11. Farooq, T., Hameed, A., Fakhar-e-Alam, M., Saadullah, M., M. Adnan, Imran, M., Asher, A., Sikandar, S., Khalid, T., Arshad, S. F., Arshad, H. J., Anwar, M., & **Bhutta, Z. A.** (2025). Investigation of Lancifortarene (LNF)-Zinc Oxide Nanocomposites for Antidiabetic Applications. *BioNanoScience*, 15(3). <https://doi.org/10.1007/s12668-025-01997-1>
12. Jeoung, Y. H., Lee, H. K., Ahn, S. H., **Bhutta, Z. A.**, & Choi, K.-C. (2025). Tangeretin induces apoptosis

- and cell cycle arrest in thyroid cancer cells. *Toxicological Research*, 1-12. <https://doi.org/10.1007/s43188-025-00293-0>
13. Shoaib, M., **Bhutta, Z. A.**[†], Javed, A., Amjad, M. N., Li, W., Choi, K.-C., & Pu, W. Future of PARP inhibitors in cancer treatment: overcoming resistance and enhancing efficacy with combination therapies. *Journal of Zhejiang University SCIENCE B*. <https://doi.org/10.1631/jzus.B2400146> (**Equal First Author**)
 14. Siddique, A. B., Hussain, R., **Bhutta, Z. A.**, Ahmad, M. Z., Khan, I., Alam, S., Malik, R. M., Mammadov, A., & Ataya, F. S. (2025). Impact of lufenuron on hematology, serum biochemistry, antioxidant enzymes, and histopathology in broiler chickens. *PLOS ONE*, 20(3), e0319157. <https://doi.org/10.1371/journal.pone.0319157>
 15. **Bhutta, Z. A.**, & Choi, K.-C. (2025). Canine mammary tumors as a promising adjunct preclinical model for human breast cancer research: similarities, opportunities, and challenges. *Archives of Pharmacol Research*, 48(1), 43-61. <https://doi.org/10.1007/s12272-024-01524-y>
 16. **Bhutta, Z. A.**, & Choi, K. C. (2025). Phytochemicals as Novel Therapeutics for Triple-Negative Breast Cancer: A Comprehensive Review of Current Knowledge. *Phytotherapy Research*, 39(1), 364-396. <https://doi.org/10.1002/ptr.8376>
 17. **Bhutta, Z. A.**, Go, R. E., & Choi, K. C. (2024). Effect of punicalagin on the autophagic cell death in triple-negative breast cancer cells. *Toxicological Research*, 40(4), 585-598. <https://doi.org/10.1007/s43188-024-00246-z>
 18. Kulyar, M. F.-A., Mo, Q., Yao, W., Li, Y., Nawaz, S., Loon, K. S., Ahmed, A. E., Alsaegh, A. A., Al Syaad, K. M., Akhtar, M., **Bhutta, Z. A.**, Li, J., & Qi, D. (2024). Modulation of apoptosis and Inflammasome activation in chondrocytes: co-regulatory role of Chlorogenic acid. *Cell Communication and Signaling*, 22(1). <https://doi.org/10.1186/s12964-023-01377-w>
 19. Ashar, A., Qayyum, A., Bhatti, I. A., Aziz, H., **Bhutta, Z. A.**, Abdel-Maksoud, M. A., Saleem, M. H., & Eletmany, M. R. (2023). Photo-Induced Super-Hydrophilicity of Nano-Calcite @ Polyester Fabric: Enhanced Solar Photocatalytic Activity against Imidacloprid. *ACS Omega*, 8(39), 35722–35737. <https://doi.org/10.1021/acsomega.3c02987>
 20. Ashar, A., **Bhutta, Z. A.**, Shoaib, M., Alharbi, N. K., Fakhar-e-Alam, M., Atif, M., Kulyar, M. F.-A., Mahfooz, A., Boruah, P., Eletmany, M. R., Al-Saeed, F. A., & Ezzat Ahmed, A. (2023). Cotton fabric loaded with ZnO nanoflowers as a photocatalytic reactor with promising antibacterial activity against pathogenic *E. coli*. *Arabian Journal of Chemistry*, 16(9), 105084. <https://doi.org/10.1016/j.arabjc.2023.105084>
 21. **Bhutta, Z. A.**, & Choi, K.-C. (2023). Antitumor Effects of Dietary Compounds. *Nutrients*, 15(10), 2349. <https://www.mdpi.com/2072-6643/15/10/2349>
 22. Ahmad, M., Akhtar, R., Altaf, I., Bhutta, Z., & Farhab, M. (2023). Prevalence of brucellosis in Pakistan with reference to South Asia and Middle East: A comparative review. *Journal of the Hellenic Veterinary Medical Society*, 74(1), 5111–5118. <https://doi.org/10.12681/jhvms.24522>
 23. Ur-Rehman, T., El-Mansi, A. A., Alhag, S. K., Al-Shuraym, L. A., Saeed, Z., Arif, M., **Bhutta, Z. A.**, & Zaman, M. A. (2023). Antiparasitic activity of methanolic and ethyl acetate extracts of *Azadirachta indica* against *Haemonchus contortus*. *Pakistan Veterinary Journal*, 43(1), 199-203. <http://dx.doi.org/10.29261/pakvetj/2023.014>
 24. Dong, H., Chen, X., Zhao, X., Zhao, C., Mehmood, K., Kulyar, M. F.-A., **Bhutta, Z. A.**, Zeng, J., Nawaz, S., Wu, Q., & Li, K. (2023). Intestine microbiota and SCFAs response in naturally *Cryptosporidium*-infected plateau yaks. *Frontiers in Cellular and Infection Microbiology*, 13. <https://doi.org/10.3389/fcimb.2023.1105126>
 25. Shoaib, M., Aqib, A. I., Muzammil, I., Majeed, N., **Bhutta, Z. A.**, Kulyar, M. F.-A., Fatima, M., Zaheer, C.-N. F., Muneer, A., Murtaza, M., Kashif, M., Shafqat, F., & Pu, W. (2023). MRSA compendium of epidemiology, transmission, pathophysiology, treatment, and prevention within one health framework. *Frontiers in Microbiology*, 13. <https://doi.org/10.3389/fmicb.2022.1067284>
 26. Shabbir, S., Boruah, P., Kulyar, M. F. E. A., **Bhutta, Z. A.**, Nawaz, M., Ashar, A., Khan, M. S., Miao, X., Jabeen, F., Mengal, K. (2023). Nephroprotective Effect of Cinnamon cassia and *Azadirachta indica* on Titanium Dioxide Nanoparticles. *Current Nanoscience*, 19(2), 291-303. <https://doi.org/10.2174/1573413718666220816084532>
 27. Chen, X., Zhao, X., Zhao, C., Ashfaq, H., Kulyar, M.F.E.A., Bhutta, Z.A., Ali, M.M., Mansoor, M.K. and Li, K. (2023). *Cryptosporidium* infection induced the dropping of SCFAs and dysbiosis in intestinal microbiome of Tibetan pigs. *Microbial Pathogenesis*. 174, 105922. <https://doi.org/10.1016/j.micpath.2022.105922>
 28. Arshad, A., Khan, I. U., Ali, M., Arshad, F., Riaz, A., **Bhutta, Z. A.**, & Ashar, A. (2023). Probing the Synergistic Effect of Antibacterial Drug and Oleic Acid in Lipid-based Gastroretentive Matrices by Melt

- Molding Method. *Current Drug Delivery*, 20(1), 89–97. <https://doi.org/10.2174/1567201819666220412112104>
29. Chen, X., Saeed, N. M., Ding, J., Dong, H., Kulyar, M. F. E. A., **Bhutta, Z. A.**, ... & Li, K. (2022). Molecular Epidemiological Investigation of *Cryptosporidium* sp., *Giardia duodenalis*, *Enterocytozoon bieneusi* and *Blastocystis* sp. Infection in Free-ranged Yaks and Tibetan Pigs on the Plateau. *Pakistan Veterinary Journal*, 42(4), 533-539. <http://dx.doi.org/10.29261/pakvetj/2022.060>
 30. **Bhutta, Z. A.**, Kulyar, M. F. A., Kanwal, A., Yao, W., Ahmed, R., Shabbir, S., ... & Hussain, R. (2022). Advances in the use of stem cells therapy in veterinary clinical practice. *JAPS: Journal of Animal & Plant Sciences*, 32(6). <https://doi.org/10.36899/JAPS.2022.6.0558>
 31. Chen, X., Kong, Q., Zhao, X., Zhao, C., Hao, P., Irshad, I., Lei, H., Kulyar, M. F.-A., **Bhutta, Z. A.**, Ashfaq, H., Sha, Q., Li, K., & Wu, Y. (2022). Sodium acetate/sodium butyrate alleviates lipopolysaccharide-induced diarrhea in mice via regulating the gut microbiota, inflammatory cytokines, antioxidant levels, and NLRP3/Caspase-1 signaling. *Frontiers in Microbiology*, 13. <https://doi.org/10.3389/fmicb.2022.1036042>
 32. Kulyar, M. F.-e.-A., Chen, X., **Bhutta, Z. A.**, Boruah, P., Shabbir, S., Akhtar, M., Aqib, A. I., Ashar, A., & Li, K. (2022). Editorial: Antimicrobials alternatives for the prevention and treatment of veterinary infectious diseases [Editorial]. *Frontiers in Veterinary Science*, 9. <https://doi.org/10.3389/fvets.2022.1025150>
 33. Kulyar, M. F.-A., Yao, W., Mo, Q., Ding, Y., Zhang, Y., Gao, J., Li, K., Pan, H., Nawaz, S., Shahzad, M., Mehmood, K., Iqbal, M., Akhtar, M., **Bhutta, Z. A.**, Waqas, M., Li, J., & Qi, D. (2022). Regulatory Role of Apoptotic and Inflammasome Related Proteins and Their Possible Functional Aspect in Thiram Associated Tibial Dyschondroplasia of Poultry. *Animals*, 12(16), 2028. <https://doi.org/10.3390/ani12162028>
 34. Kulyar, M. F.-A., Mo, Q., Yao, W., Ding, Y., Yan, Z., Du, H., Pan, H., Li, K., Gao, J., Shahzad, M., Mansoor, M. K., Iqbal, M., Waqas, M., Akhtar, M., **Bhutta, Z. A.**, & Li, J. (2022). Chlorogenic acid suppresses miR-460a in the regulation of Bcl-2, causing interleukin-1 β reduction in thiram exposed chondrocytes via caspase-3/caspase-7 pathway. *Phytomedicine*, 104, 154296. <https://doi.org/10.1016/j.phymed.2022.154296>
 35. Wang, Y., Li, X., Chen, X., Kulyar, M. F.-A., Duan, K., Li, H., **Bhutta, Z. A.**, Wu, Y., & Li, K. (2022). Gut Fungal Microbiome Responses to Natural *Cryptosporidium* Infection in Horses. *Frontiers in Microbiology*, 13. <https://doi.org/10.3389/fmicb.2022.877280>
 36. Anwar, M. A., Aziz, S., Ashfaq, K., Aqib, A. I., Shoaib, M., Naseer, M. A., Alvi, M. A., Muzammil, I., **Bhutta, Z. A.**, Sattar, H., Saleem, A., Zaheer, T., Khanum, F., & Mahmood, A. (2022). Trends in frequency, potential risks and antibiogram of *E. coli* isolated from semi-intensive dairy systems. *Pakistan Veterinary Journal*, 42(2), 167-172. <http://dx.doi.org/10.29261/pakvetj/2022.018>
 37. Shoaib, M., Aqib, A. I., Ali, M. M., Ijaz, M., Sattar, H., Ghaffar, A., Sajid Hasni, M., **Bhutta, Z. A.**, Ashfaq, K., Kulyar, M. F.-A., & Pu, W. (2022). Tracking Infection and Genetic Divergence of Methicillin-Resistant *Staphylococcus aureus* at Pets, Pet Owners, and Environment Interface. *Frontiers in Veterinary Science*, 9. <https://doi.org/10.3389/fvets.2022.900480>
 38. Kulyar, M. F.-e.-A., Ashfaq, K., Aqib, A. I., Duan, K., Asif, M., **Bhutta, Z. A.**, Shoaib, M., Shabbir, S., Nawaz, S., Naseer, M. A., Sarwar, I., Akhtar, M., Chaudhry, A. S., Hussain, R., Hussain, H. I., Wu, Y., & Li, K. (2022). Enhanced Healing Activity of Manuka Honey and Nitrofurazone Composite in Full-Thickness Burn Wounds in the Rabbit Model [Original Research]. *Frontiers in Veterinary Science*, 9. <https://doi.org/10.3389/fvets.2022.875629>
 39. Ashar, A., Bhatti, I. A., Mohsin, M., Yousaf, M., Aziz, H., Gul, A., Hussain, T., & **Bhutta, Z. A.** (2022). Enhanced Solar Photocatalytic Activity of Thermally Stable I:ZnO/Glass Beads for Reduction of Cr(VI) in Tannery Effluent. *Frontiers in Chemistry*, 10. <https://doi.org/10.3389/fchem.2022.805913>
 40. Du, H., Yao, W., Kulyar, M. F.-A., Ding, Y., Zhu, H., Pan, H., Li, K., **Bhutta, Z. A.**, Liu, S., & Li, J. (2022). Effects of *Bacillus amyloliquefaciens* TL106 Isolated from Tibetan Pigs on Probiotic Potential and Intestinal Microbes in Weaned Piglets. *Microbiology Spectrum*, 10(1). <https://doi.org/10.1128/spectrum.01205-21>
 41. Nawaz, S., Asif, M., **Bhutta, Z. A.**, Kulyar, M. F., Hussain, R., Ramzan, A., Shafeeq, S., Shakir, M. Z., Sarfaraz, M. T., & Li, K. (2021). A comprehensive review on acute phase proteins in chicken. *European Poultry Science*, 85, 1–18. <https://doi.org/10.1399/eps.2021.344>
 42. Ashar, A., Bhatti, I. A., Siddique, T., Ibrahim, S. M., Mirza, S., **Bhutta, Z. A.**, Shoaib, M., Ali, M., Taj, M. B., Iqbal, M., Noor, S., & Mohsin, M. (2021). Integrated hydrothermal assisted green synthesis of ZnO nano discs and their water purification efficiency together with antimicrobial activity. *Journal of Materials Research and Technology*, 15, 6901–6917. <https://doi.org/10.1016/j.jmrt.2021.11.009>
 43. **Bhutta, Z. A.**, Kanwal, A., Ali, M., Kulyar, M. F.-e.-A., Yao, W., Shoaib, M., Ashar, A., Mahfooz, A.,

- Ijaz, M., Ijaz, N., Asif, M., Nawaz, S., Mahfooz, M. R., & Kanwal, T. (2021). Emerging nanotechnology role in the development of innovative solutions against COVID-19 pandemic. *Nanotechnology*, 32(48), 482001. <https://doi.org/10.1088/1361-6528/ac189e>
44. **Bhutta, Z. A.**, Kulyar, M. F.-e.-A., Kanwal, A., Mahfooz, A., Ali, M., & Li, K. (2021). One Health: An inclusive framework to curb the COVID-19 pandemic. *EXCLI Journal*, 20, 724-726. <https://doi.org/10.17179/excli2021-3615>
 45. **Bhutta, Z. A.**, Ashar, A., Mahfooz, A., Khan, J. A., Saleem, M. I., Rashid, A., Aqib, A. I., Kulyar, M. F.-e.-A., Sarwar, I., Shoaib, M., Nawaz, S., & Yao, W. (2021). Enhanced wound healing activity of nano ZnO and nano Curcuma longa in third-degree burn. *Applied Nanoscience*, 11(4), 1267-1278. <https://doi.org/10.1007/s13204-020-01661-y>
 46. Sarwar, I., Ashar, A., Mahfooz, A., Aqib, A. I., Saleem, M., Butt, A. A., **Bhutta, Z. A.**, Shoaib, M., Kulyar, M.-E. A., & Ilyas, A. (2021). Evaluation of antibacterial potential of raw turmeric, nano-turmeric, and nsoids against multiple drug resistant Staphylococcus aureus and E. coli isolated from animal wounds. *Pakistan Veterinary Journal*, 41(2), 209–214. <https://doi.org/10.29261/pakvetj/2021.014>
 47. Shabbir, S., Kulyar, M. F.-e.-A., **Bhutta, Z. A.**, Boruah, P., & Asif, M. (2021). Toxicological Consequences of Titanium Dioxide Nanoparticles (TiO₂NPs) and Their Jeopardy to Human Population. *BioNanoScience*, 11(2), 621-632. <https://doi.org/10.1007/s12668-021-00836-3>
 48. Li, K., Liu, J., Zeng, Z., Kulyar, M. F.-A., Wang, Y., Li, A., **Bhutta, Z. A.**, Aqib, A. I., Shahzad, M., Li, J., & Qi, D. (2020). The Complete Genome of Probiotic Lactobacillus sakei Derived from Plateau Yak Feces. *Genes*, 11(12), 1527. <https://doi.org/10.3390/genes11121527>
 49. Aqib, A. I., Saqib, M., Khan, S. R., Ahmad, T., Shah, S. A. R., Naseer, M. A., Shoaib, M., Sarwar, I., Kulyar, M. F.-A., **Bhutta, Z. A.**, Muzammil, I., Riaz, T., Khan, M. A., Ali, M., & Yasmeen, K. (2021). Non-steroidal anti-inflammatory drugs, plant extracts, and characterized microparticles to modulate antimicrobial resistance of epidemic mecA positive S. aureus of dairy origin. *Applied Nanoscience*, 11(2), 553–563. <https://doi.org/10.1007/s13204-020-01628-z>
 50. Ali, M., Ijaz, M., Manzoor, A., Mohy-Ud-Din, M. T., Hassan, F., Tabassum, R., **Bhutta, Z. A.**, Ali, W., Muneeb, M., Mehtab, U., & Zafar, M. A. (2020). Efficacy of Azadirachta indica (Neem) leaf extract and hypertonic saline solution as intratesticular chemical sterilizing agents in dogs. *Brazilian Journal of Veterinary Research and Animal Science*, 57(4), e171582. <https://doi.org/10.11606/issn.1678-4456.bjvras.2020.171582>
 51. **Bhutta, Z. A.**, Kulyar, M. F.-A., Shoaib, M., Yao, W., Asif, M., Nawaz, S., Ali, M., & Kanwal, A. (2020). Exploratory Study on the Psychological Impact of COVID-19 on Students. *Hosts and Viruses*, 7(4). <https://doi.org/10.17582/journal.hv/2020/7.4.91.96>
 52. Fakhar-e-Alam Kulyar, M., **Bhutta, Z. A.**, Shabbir, S., & Akhtar, M. (2020). Psychosocial impact of COVID-19 outbreak on international students living in Hubei province, China. *Travel Medicine and Infectious Disease*, 37, 101712. <https://doi.org/https://doi.org/10.1016/j.tmaid.2020.101712>
 53. Shoaib, M., Rahman, S. U., Aqib, A. I., Ashfaq, K., Naveed, A., Kulyar, M. F. E. A., **Bhutta, Z. A.**, Younas, M. S., Sarwar, I., Naseer, M. A., & Ghaffar, A. (2020). Diversified Epidemiological Pattern and Antibigram of mecA Gene in Staphylococcus aureus Isolates of Pets, Pet Owners and Environment. *Pakistan Veterinary Journal*, 40(3), 331-336. <https://doi.org/10.29261/pakvetj/2020.039>
 54. Naseer, M. A., Aqib, A. I., Ashar, A., Saleem, M. I., Shoaib, M., Kulyar, M. F.-A., Ashfaq, K., **Bhutta, Z. A.**, & Nighat, S. (2020). Detection of Altered Pattern of Antibigram and Biofilm Character in Staphylococcus aureus Isolated From Dairy Milk. *Pakistan Journal of Zoology*, 53(1). <https://doi.org/10.17582/journal.pjz/20191203161254>
 55. Ashar, A., Bhatti, I. A., Ashraf, M., Tahir, A. A., Aziz, H., Yousuf, M., Ahmad, M., Mohsin, M., & **Bhutta, Z. A.** (2020). Fe³⁺ @ ZnO/polyester based solar photocatalytic membrane reactor for abatement of RB5 dye. *Journal of Cleaner Production*, 246, 119010. <https://doi.org/10.1016/j.jclepro.2019.119010>
 56. Shoaib, M., Muzammil, I., Hammad, M. **Bhutta, Z. A.**, & Yaseen, I. (2020). A Mini-Review on Commonly used Biochemical Tests for Identification of Bacteria. *International Journal of Research Publications*. 55(1). <https://doi.org/10.47119/IJRP100541620201224>
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- Li, K., Wang, Y., Li, A., Fakhar-E-Alam, K. M., & **Bhutta, Z. A.** (2021). The Epidemiology of Zoonotic Parasites of Farm Animals and Birds in China in the Past Ten Years. In *Veterinary Pathobiology and Public Health* (pp. 152–167). Unique Scientific Publishers. <https://doi.org/10.47278/book.vpph/2021.013>

TRAINING

- International “One Health Summer School” from August 25th to August 30th, 2019 held at Gikondo Campus, University of Rwanda, Republic of Rwanda. Summer school organized by Global Health Academy - The University of Edinburgh in collaboration with the University of Rwanda, School of Public Health and Makerere University Uganda, College of Veterinary Medicine.

WORK EXPERIENCE

Postdoctoral Research Fellow

13-03-2026 to Till Date

School of Public Health, Xiamen University, Xiamen, Fujian, China

Research Project: Construction of SHIFT-based Peptide-coated Nanochemotherapeutics for Hepatocellular Carcinoma (HCC) Theranostics

Veterinary Doctor

09-2020 to 08-2021

Pets Health Center, Faisalabad, Pakistan

As a veterinary doctor, I performed daily clinical examinations, diagnosed common pet illnesses, and administered treatments, including vaccinations and surgeries. I managed routine wellness checks, parasite control, and emergency care for dogs, cats, and exotic pets while maintaining client education on animal health. Duties also included record-keeping, pharmacy inventory management, and collaboration with technicians for high-volume outpatient services.

Visiting Lecturer

09-2019 to 08-2020

Bahauddin Zakariya University, Multan, Pakistan

Organized and taught a multidisciplinary course integrating veterinary clinical medicine, preventive veterinary medicine, internal medicine, and surgical principles. Designed and delivered a curriculum that combined traditional lectures, interactive case discussions, and hands-on clinical training to enhance students' diagnostic and problem-solving skills. Emphasized evidence-based approaches to disease prevention, diagnosis, and treatment in veterinary practice.

CERTIFICATES AND DIPLOMAS

- Certificate of Participation at “International Workshop on Nanomedicine - Development and Challenges”, 15-17 March 2021, organized by “COMSTECH Secretariat, Islamabad, Pakistan”.
- Certificate of European CME credits (by European Accreditation Council for Continuing Education) and participation at “6th One Health Congress”, 30 October - 3 November 2020, organized by “The University of Edinburgh, United Kingdom”.

ORAL PRESENTATIONS

- **Zeeshan Ahmad Bhutta**, Ambreen Ashar, Ashar Mahfooz, Amjad Islam Aqib, Iqra Sarwar, Muhammad Fakhar-e-Alam Kulyar, Muhammad Asif, Shah Nawaz, Muhammad Shoaib, Tayyab-UR-Rehman, Ali Hasan. “**Comparative efficacy of nano *Curcuma longa* and zinc oxide nanoparticle against second degree burn wound**”. 5th International Conference on Environmental Horizon (ICEH-2019) at International Center for Chemical and Biological Sciences, University of Karachi, Pakistan, 11-13 January 2019.

POSTER PRESENTATIONS

- **Zeeshan Ahmad Bhutta**, Kyung Chul Choi. Punicalagin-mediated suppression of oncogenic properties in ovarian epithelial adenocarcinoma cells. EACR 2025 Congress, 16-19 June, 2025, Lisbon, Portugal.
- **Zeeshan Ahmad Bhutta**, Kyung Chul Choi. Treatment of punicalagin resulted in the inhibition of proliferation, migration, and invasion in ovarian epithelial adenocarcinoma cells in vitro. Cell Bio 2024, 14 December- 18 December 2024, San Diego, CA, USA.
- **Zeeshan Ahmad Bhutta**, Kyung Chul Choi. Punicalagin triggers apoptosis and autophagy by inducing mitochondrial toxicity via disrupting the PI3K/AKT/mTOR pathways in triple-negative breast cancer cells. EUROTOX 2023 - 57th Congress of the European Toxicologists and European Societies of Toxicology, 10 September - 13 September 2023, Ljubljana, Slovenia.

ONLINE COURSES

- Completed “Writing in the Sciences” online course authorized by “Stanford University, USA” via Coursera, November 18, 2019.
- Completed “The Science of Stem Cells” online course authorized by “American Museum of Natural History, USA” via Coursera, August 29, 2018.
- Completed “Understanding Cancer Metastasis” online course authorized by “Johns Hopkins University, USA” via Coursera, August 27, 2018.

- Completed “Lactation Biology” online course authorized by “University of Illinois, USA” via Coursera, July 31, 2018.
- Completed “The Truth About Cats and Dogs” online course authorized by “University of Edinburgh, UK” via Coursera, July 8, 2018.
- Completed “Feeding the World” online course authorized by “University of Pennsylvania, USA” via Coursera, July 4, 2018.
- Completed “Sustainable Food Production Through Livestock Health Management” online course authorized by “University of Illinois, USA” via Coursera, June 26, 2018.
- Completed “The Horse Course: Introduction to Basic Care and Management” online course authorized by “University of Florida, USA” via Coursera, June 22, 2018.
- Completed “Dairy Production and Management” online course authorized by “Penn State University, USA” via Coursera, June 22, 2018.
- Completed “Dog Emotion and Cognition” online course authorized by “Johns Hopkins University, USA” via Coursera, June 20, 2018.
- Completed “Animal Behaviour and Welfare” online course authorized by “University of Edinburgh, UK” via Coursera, December 19, 2017.
- Completed “ETHICS AND BEST PRACTICES IN SHARING INDIVIDUAL LEVEL RESEARCH DATA” online course authorized by “The Global Health Network”, November 22, 2017.
- Completed “RESEARCH ETHICS” online course authorized by “The Global Health Network”, November 22, 2017.
- Completed “INTRODUCTION TO REVIEWING GENOMIC RESEARCH” online course authorized by “The Global Health Network”, November 22, 2017.
- Completed “GCLP: FACILITIES, EQUIPMENT, MATERIALS AND REAGENTS” online course authorized by “The Global Health Network”, November 6, 2017.
- Completed “GCLP: ORGANISATION AND PERSONNEL” online course authorized by “The Global Health Network”, November 6, 2017.
- Completed “INTRODUCTION TO GOOD CLINICAL LABORATORY PRACTICE” online course authorized by “The Global Health Network”, November 3, 2017.
- Completed “ICH GOOD CLINICAL PRACTICE E6 (R2) online course authorized by “The Global Health Network”, November 3, 2017.
- Completed “Antimicrobial resistance - theory and methods” online course authorized by “Technical University of Denmark (DTU), Denmark” via Coursera, October 15, 2017.

CERTIFICATES

- **Certificate of Attendance and Poster Presentation:** Participated in the **European Association for Cancer Research (EACR) 2025 Congress**, Lisbon, Portugal, 16–19 June 2025; presenting author of poster abstract on “Punicalagin-mediated suppression of oncogenic properties in ovarian epithelial adenocarcinoma cells”.
- **Certificate of completion:** Completed the **2024 Toxicology Professional Education Course**, organized by the Korean Society of Toxicology and the Korean Society of Environmental Mutagenesis and Carcinogenesis, 22–23 Aug 2024.
- **Certificate of Attendance:** Participated in the **57th Congress of the European Societies of Toxicology (EUROTOX 2023)**, Ljubljana, Slovenia, 10–13 September 2023; presenting author of poster abstract **P18-06** on “Punicalagin triggers apoptosis and autophagy by inducing mitochondrial toxicity via disrupting the PI3K/AKT/mTOR pathways in triple-negative breast cancer cells”.
- **Certificate of completion:** Completed **Laboratory Animal Training** at Chungbuk National University Laboratory Animal Research Support Center, 26 Nov 2022.
- **Certificate of attendance:** Attended the **6th World One Health Congress**, UK, 30 Oct 2020–3 Nov 2020, and received 40 European CME credits (ECMECs) from EACCME.
- **Certificate of appreciation:** Recognized for significant contribution to the **Raja Rustam Khan / Rana Manzoor Ahmad Khan Memorial Greyhounds Track Derby Championship**, organized by the University of Agriculture, Faisalabad, and Raja Rustam Group, 2–4 February 2019.
- **Certificate of Attendance:** Participated in the **5th International Conference on Environmental Horizon (ICEH-2019)**, International Center for Chemical and Biological Sciences, University of Karachi, Pakistan, 11-13 January 2019; presenting author of poster abstract on “Comparative efficacy of

nano *Curcuma longa* and zinc oxide nanoparticle against second degree burn wound”.

- **Certificate of participation:** Presented a poster presentation at the **2nd National One Day Symposium on One Health**, organized by the Faculty of Veterinary Science, University of Agriculture, Faisalabad (UAF) , and The Brooke Pakistan, on 12 December 2018.
- **Certificate of completion:** Successfully completed the **Community Action for Disaster Response (CADRE) Orientation Course**, conducted by the Punjab Emergency Service at the University of Agriculture, Faisalabad, on 7–9 March 2018.
- **Certificate of appreciation:** Actively participated in the session “**Career Counseling for Better Future & Development**” held at University of Agriculture, Faisalabad (UAF) on 15 December 2017.
- **Certificate of appreciation:** Participated in the **Flood Relief Veterinary Camp** at District Muzaffargarh, organized by the Vets Care Club, University College of Veterinary & Animal Sciences, The Islamia University of Bahawalpur, from 10th to 30th October 2014.
- **Certificate of attendance:** Participated in the **International Camel Conference 2013** at The Islamia University of Bahawalpur, Pakistan, in collaboration with the Higher Education Commission of Pakistan, 19–21 December 2013.

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

- **American Association for Cancer Research (AACR)**
Membership ID: 1325806 | Current Position: Associate Member
- **The American Society for Cell Biology (ASCB)**
Membership ID: 172035 | Current Position: Postdoc
- **Association for Molecular Pathology (AMP)**
Membership ID: 1422023 | Current Position: Associate Fellow Membership

RESEARCH SKILLS

Expertise in Techniques:

- Cell lines culturing and experimental modelling
- PCR, qPCR techniques (RNA Extraction, cDNA Formation)
- Primer design
- Western blotting techniques (Protein extraction, BCA)
- Immunofluorescence Assay
- Flow cytometry assay
- WST-Assay
- Transwell migration assay
- Scratch Wound Assay

Expertise in Instrument Usage:

- Lionheart FX Automated Microscope
- Immunofluorescence microscopy

Software Skills

- Scientific Writing
- OriginPro
- ChemDraw
- Graphpad Prism
- EndNote
- Mendeley
- Photoshop
- Image J
- AI Based Modules

Languages:

- English (Reading, Speaking, Writing)
- Urdu (Reading, Speaking, Writing)

- Korean (Basic, Reading, Speaking, Writing)

REFERENCES

- **Prof. Kyung-Chul Choi**
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College of Veterinary Medicine,
Chungbuk National University,
Cheongju 28644, Republic of Korea
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- **Dr. Hong Kyu Lee**
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