

DR BASIT ZESHAN

DVM (Pak), MPhil (Pak) PhD (NAU, China)

PostDoc. (China & Malaysia)

ASSISTANT PROFESSOR (BS-19)

Center for Applied Molecular Biology (CAMB)

University of the Punjab, Lahore, Pakistan



1. PERSONAL INFORMATION:

DOB : February 5, 1983
Nationality : Pakistan
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2. ACADEMIC RECORD:

Degree	Institution	From -To	Major	Division / Distinction
Post Doctorate	Chinese Academy of Sciences & Southeast University China	2011-2013	Molecular Virology	NA
Post Doctorate	Universiti Sains Malaysia (USM) (Health campus) Malaysia	2013-2014	Cancer Immunology	NA
PhD*	College of Veterinary Medicine Nanjing Agricultural University, China	2007-2010	Microbiology & Immunology	1 st div. (86%) Best Graduate
MPhil**	Department of Microbiology, Quaid-i-Azam University Islamabad	2005-2006	Microbiology	1 st div. (82%)
DVM	Faculty of Veterinary Medicine, Gomal University Dera Ismail Khan	2000-2004	Veterinary Medicine	1 st div. (72%) 2 nd Position
Intermediate	BISE, Dera Ghazi Khan	1997-1999	Pre-Medical	1 st div. (61%)
Matric	BISE, Dera Ghazi Khan	1995-1997	Phy, Chem. Bio	1 st div. (73%)

	Thesis / Dissertation Title
*	Construction, immunogenicity and protective efficacy of the Spike glycoprotein (S1) of <i>infectious bronchitis virus</i> with replication-defective <i>adenovirus</i> vector. Supervisor: Professor Dr Jiang Ping, NAU, China
**	Comparative studies regarding vaccine type and route of administration against avian adenovirus-4 Supervisor: Professor Dr Safia Ahmed, QAU, Islamabad

3. EMPLOYMENT RECORD:

- a. **Total Teaching Experience: (Post-PhD)** :11 Years
i. **International (Malaysia)** : 4 Years
ii. **National** : 7 Years

S. No.	Position	Institution/Organization	Duration
1.	Assistant Professor (BS-19)	Center for Applied Molecular Biology (CAMB) University of the Punjab Lahore	August 01, 2025 to date
2.	Assistant Professor (BS-19)	Institute of Industrial Biotechnology Government College University Lahore	2023 to 2025
3.	Associate Professor (Contract)	Faculty of Agriculture, Universiti Malaysia Sabah, (UMS), Malaysia	2022 to 2023
4.	Associate Professor / Head of Department	Faculty of Life Sciences, University of Central Punjab (UCP) Lahore	2016 to 2021
5.	Senior Lecturer (Contract)	Faculty of Veterinary Medicine, Universiti Malaysia Kelantan (UMK), Malaysia	2014 to 2016

b. **Total Research Experience (Bench work) : 7 Years**

- i. **Post Doctorate** : 3 Years 6 Month
ii. **PhD Research** : 3 Years 6 Month

4. COURSES TAUGHT:

Sr. #	Course Code	Course Title	Institution
1.	DVT 22003	Veterinary Virology	Faculty of Veterinary Medicine, Universiti Malaysia Kelantan (UMK), Malaysia
2.	DVT 21903	Veterinary Immunology	
3.	DVT 43803	Poultry Medicine	
4.	DVT 55309	Clinical Practice IV	
5.	DVT 55204	Research Project	
1.	RL00303	Animal Biotechnology	Animal Science Program, Faculty of Sustainable Agriculture, Universiti Malaysia Sabah (UMS) Malaysia
2.	RL10903	Animal Physiology and Anatomy	
3.	RL 30603	Animal Diseases and Health Care	
4.	RL11003	Animal Microbiology	
5.	RL31002	Animal Biotechnology	
6.	RL10703	Biochemistry for Livestock Production	
1.	MICBIO-4205	Medical Microbiology	Institute of Industrial Biotechnology, Government College University Lahore
2.	MICBIO-3205	Clinical Bacteriology	
3.	BIOTECH-1201	Basic Biotechnology II	
4.	MICROBIO-2201	General Immunology	
5.	MICBIO-4102	Mol. Mech. of Anti. Drugs	
6.	MICBIO-3104	Molecular Biology	
7.	MICBIO-3102	Virology	
1.	MB2703	General Immunology	Faculty of Science & Technology University of Central Punjab Lahore
2.	MB2723	General Virology	
3.	MB4903	Research Project-I	
4.	MB670	Advanced Virology	
5.	MB671	Advanced Immunology	
6.	MB761	Frontiers in Microbiology	
7.	MB664	Advanced Techniques in Microbiology	
8.	MB663	Advances in Microbiology	

5. RESEARCH PROJECTS:

Sr.#	Research Project	Source	Amount	Duration	Role/Status
1.	Construction, immunogenicity and protective efficacy of the subunit vaccine using receptor binding domain (RBD) of Infectious Bronchitis Virus	FRGS, Malaysia	90,000RM	2014-2016	PI/Completed
2.	Rapid detection of Equine Herpes Virus by Loop-Mediated Isothermal Amplification (LAMP) among Endurance Horses in East Coast Region of Malaysia	RACE, Malaysia	50,000 RM	2014-15	Co-PI / Completed
3.	Fabrication and characterization of mesoporous silica nanoparticle and their use as adjuvants for vaccine delivery	HEC, Pakistan	0.5 million PKR	2016-17	Co-PI / Completed
4.	Polymorphism of fecundity genes, BMP15, KISS1, and GDF9 and their association with litter size in Katjang and Boer goat breeds in Malaysia	UMSGreat Programs under UMS, Malaysia	1500,000/-	2022-23	PI/completed
5.	Genetic diversity of rotavirus genotypes in hospitalized children after the introduction of rotavirus vaccination in Pakistan	ORIC, GCU Lahore	300000/-	2024-2026	PI/Ongoing

6. RESEARCH SUPERVISION:

- a. PhD Scholar Supervised : 03
- b. MS Students Supervised : 41
- c. BS Final Year Research Project : 35

LIST OF PHD STUDENTS SUPERVISED				
Sr. #	ROLE	NAME	REG. No.	STATUS
1.	SUPERVISOR	NUREEN ZAHRA	L1F16PHMR0003	Completed
2.	SUPERVISOR	MUHAMMAD RAMZAN	L1F15PHMR0004	Completed
3.	SUPERVISOR	ZAIB UN NISA	L1F16PHMR0002	Completed
LIST OF MS STUDENTS SUPERVISED				
1.	SUPERVISOR	ADNAN ASLAM	L1F15MSMR0010	Completed
2.	SUPERVISOR	NIDA ANDLIB	L1F15MSMR0012	Completed
3.	SUPERVISOR	GHULAM MURTAZA	L1F15MSMR0009	Completed
4.	CO-SUPERVISOR	MUHAMMAD FARHAN	L1F15MSMR0001	Completed
5.	CO-SUPERVISOR	ZAINAB NADEEM	L1F15MSMR0011	Completed
6.	CO-SUPERVISOR	ZUBAIDA SHARIF	L1F15MSMR0006	Completed
7.	CO-SUPERVISOR	SANA ZAHID	L1F15MSMR0007	Completed
8.	CO-SUPERVISOR	M. ABDUL REHMAN	L1F15MSMR0004	Completed
9.	SUPERVISOR	PAKEEZA MUNIR	L1F16MSMR0014	Completed
10.	SUPERVISOR	MUHAMMAD HUSSAIN	L1F16MSMR0017	Completed
11.	SUPERVISOR	IQRA HABIB	L1F16MSMR0007	Completed
12.	SUPERVISOR	HEBA AJMAL	L1F16MSMR0006	Completed
13.	SUPERVISOR	FALK SHER	L1F16MSMR0010	Completed
14.	SUPERVISOR	NAVEED AHMED	L1F16MSMR0009	Completed
15.	SUPERVISOR	HADIA FAZAL	L1F16MSMR0005	Completed
16.	CO-SUPERVISOR	MUHAMMAD KASHIF	L1F16MSMR0019	Completed

17.	CO-SUPERVISOR	AHMED RAZA	L1F16MSMR0025	Completed
18.	CO-SUPERVISOR	SANA MUNIR	L1F16MSMR0001	Completed
19.	CO-SUPERVISOR	M. NAVEED ASLAM	L1F16MSMR0023	Completed
20.	SUPERVISOR	SALMAN HUSSAIN	L1F16MSMR0013	Completed
21.	CO-SUPERVISOR	KIRAN SAJID	L1F16MSMR0024	Completed
22.	SUPERVISOR	SAMRA SHOUKAT	L1S17MSMR0005	Completed
23.	SUPERVISOR	MUHAMMAD NADEEM	L1S17MSMR0008	Completed
24.	SUPERVISOR	MADIHA ASGHAR	L1S17MSMR0011	Completed
25.	SUPERVISOR	ABDULLAH	L1S17MSMR0010	Completed
26.	SUPERVISOR	MIAN MUBEEN ALI QADRI	L1S17MSMR0013	Completed
27.	SUPERVISOR	RABIYA ARSHAD	L1S17MSMR0001	Completed
28.	SUPERVISOR	RABIA RIAZ	L1F17MSMR0001	Completed
29.	CO-SUPERVISOR	AYESHA ASLAM	L1F17MSMR0002	Completed
30.	SUPERVISOR	SONIA BASHIR	L1F18MSMR0005	Completed
31.	SUPERVISOR	FATIMA KHAN	L1F18MSMR0010	Completed
32.	SUPERVISOR	HAFZA KHALID	L1S18MSMR0006	Completed
33.	SUPERVISOR	KINZA HASHAM	L1S18MSMR0012	Completed
34.	SUPERVISOR	SABA GHAFOR	L1S18MSMR0003	Completed
35.	SUPERVISOR	SIDRA SAJID	L1S18MSMR0010	Completed
36.	SUPERVISOR	HAFIZ AHMAD JAMAL SIDDIQUI	L1F19MSMR0012	Completed
37.	SUPERVISOR	TOUSIF HAIDER	L1F19MSMR0013	Completed
38.	SUPERVISOR	ZAINAB HASAN	L1F19MSMR0014	Completed
39.	SUPERVISOR	ZUNAIRA QAYYUM	L1F19MSMR0010	Completed
40.	SUPERVISOR	IQRA FAHEEM	L1S20MSMR0008	Completed
41.	SUPERVISOR	MISHA IKRAM	L1S20MSMR0007	Completed

7. RESEARCH PUBLICATIONS:

(Total Impact Factor (SCI) = 200+; h-index: 20; Citations: 1415

- Faris, A. S., Rodrigues, K. F., Zeshan, B., Sarker, S., Candyrine, S. C. L., Rahman, M. M., ... & Bhuiyan, M. S. A. (2025). Polymorphism analysis of GDF9 and BMP15 genes and their association with litter size in crossbreed goats in Malaysia. *Tropical Animal Health and Production*, 57(4), 1-10.
- Guo, R., Li, H., Li, J., Qv, J., Ren, G., Zhang, X., ... & Wang, X. (2025). Recombinant PRV Expressing GP3 and GP5 of PRRSV Provides Effective Protection Against Coinfection With PRV and PRRSV. *Transboundary and Emerging Diseases*, 2025(1), 4612568
- Siddiqui, F., Zahra, N., Amjad, M. F., Zeshan, B., Alam, R., Jaffar, H. M., ... & Baothman, B. K. (2025). In-vitro anti-inflammatory and antagonistic efficacy of polymyxin B capped silver nanoparticles in multi drug resistant *Acinetobacter baumannii*. *Scientific Reports*, 15(1), 17465.
- Ramzan, M., Abusalah, M. A. H. A., Ahmed, N., Yean, C. Y., & Zeshan, B. (2024). Green Synthesis and Characterization of Silver Nanoparticles Using *Zingiber officinale* Extracts

- to Investigate Their Antibacterial Potential. *International Journal of Nanomedicine*, 13319-13338.
5. Zeshan, B., Ambreen, A., & Mustafa, T. (2024). Plasma ferritin, C-reactive protein, and adenosine deaminase levels in tuberculous lymphadenitis and pleuritis and their role in monitoring treatment response. *BMC Infectious Diseases*, 24(1), 1-15.
 6. Siddiqui, F., Zahra, N., Zeshan, B., Khan, A. A., Sarwar, A., Aziz, T., ... & Alshammari, A. (2024). Scrutinizing the effect of additive and synergistic antibiotics against carbapenem-resistant *Pseudomonas aeruginosa*. *Open Chemistry*, 22(1), 20240074.
 7. Mirza, A., Qadri, M. M. A., Zeshan, B., Hafiz, K., Abbas, S., Ahmad, N., & Iqbal, M. (2024). HLA class-I polymorphisms among the Punjabi population of Pakistan: A comparative analysis with country's other ethnic groups. *Human Immunology*, 85(5), 111083.
 8. Zhang, R., Li, H., Xie, H., Wang, P., Yu, C., Li, J., ... & Wang, X. (2024). Transcriptional kinetics of NADC34-like porcine reproductive and respiratory syndrome virus during cellular infection. *Archives of Virology*, 169(9), 186.
 9. Zhao, Y., Wang, R., Li, W., Ren, G., Zhang, Y., Guo, R., ... & Wang, X. (2024). Lineage 1 PRRSVs Infection Induces Hemorrhagic Injury in Intestines of Piglets: Effects on Complement and Coagulation Cascades. *Microbial Pathogenesis*, 106682.
 10. Afzaal, M., Bashir, N., Amjad, I., Abbasi, N. A., Iqbal, S. S., Sharif, F., ... & Rehman, Y. (2024). Amino Acids and Their Biosynthesis, Extraction, Purification, and Refining. In *Recent Advances in Industrial Biochemistry* (pp. 419-431). Cham: Springer International Publishing.
 11. Zhang, R., Li, H., Xie, H., Hou, X., Zhou, L., Cao, A., ... & Wang, X. (2024). Comparing the molecular evolution and recombination patterns of predominant PRRSV-2 lineages co-circulating in China. *Frontiers in Microbiology*, 15, 1398470.
 12. Ramzan M, Zeshan B. Assessment of the Phytochemical Analysis and Antimicrobial Potentials of *Zingiber zerumbet*. *Molecules*. 2023; 28(1):409.
<https://doi.org/10.3390/molecules28010409>.
 13. Zhang, R., Wang, P., Xie, H., Yu, C., Li, J., Yang, Z., ... & Wang, X. (2023). Transcriptional kinetics of NADC34-like porcine reproductive and respiratory syndrome virus during cellular infection.
 14. Zahra, N., Fareed, T., Hamza, M., Zeshan, B., Sarwar, A., Aziz, T., ... & Alasmari, A. F. (2023). In-vivo and in-silico analysis of anti-inflammatory, analgesic, and anti pyretic activities of in-silico leaf extract. *Journal of the Chilean Chemical Society*, 68(2), 5813-5821.
 15. Afzal M, Khan AS, Zeshan B, Riaz M, Ejaz U, Saleem A, Zaineb R, Sindhu HA, Yean CY, Ahmed N. Characterization of Bioactive Compounds and Novel Proteins Derived from

- Promising Source *Citrullus colocynthis* along with In-Vitro and In-Vivo Activities. *Molecules*. 2023; 28(4):1743. <https://doi.org/10.3390/molecules28041743>.
16. Anjum, A., Siddique, H., Rabaan, A. A., Alhumaid, S., Garout, M., Almuthree, S. A., ... & Zeshan, B. (2023). Evaluation of Hematological, Biochemical Profiles and Molecular Detection of Envelope Gene (gp-41) in Human Immunodeficiency Virus (HIV) among Newly Diagnosed Patients. *Medicina*, 59(1), 93.
 17. Hasan, Z., Zeshan, B., Hassan, A., Daud, N. H. A., Sadaf, A., & Ahmed, N. 2023. Preparation and characterization of edible whey protein nanofibrils and efficacy studies on the quality and shelf-life of chilled food products. *Journal of Food Safety*, e13034.
 18. Hussain S, Zeshan B, Arshad R, Kabir S, Ahmed N. MRSA Clinical Isolates Harboring mecC Gene Imply Zoonotic Transmission to Humans and Colonization by Biofilm Formation. *Pakistan J. Zool.*, vol. 55(2), pp 999-1002, 2023 DOI: 10.17582/journal.pjz/20210518040546.
 19. Gul, S., Javed, S., Azeem, M., Aftab, A., Anwaar, N., Mehmood, T. and Zeshan, B., 2023. Application of *Bacillus subtilis* for the Alleviation of Salinity Stress in Different Cultivars of Wheat (*Triticum aestivum* L.). *Agronomy*, 13(2), p.437.
 20. Zahra, N., Zeshan, B. and Ishaq, M., 2022. Carbapenem resistance gene crisis in *A. baumannii*: a computational analysis. *BMC microbiology*, 22(1), pp.1-17.
 21. Ramzan M, Karobari MI, Heboyan A, Mohamed RN, Mustafa M, Basheer SN, Desai V, Batool S, Ahmed N, Zeshan B. Synthesis of silver nanoparticles from extracts of wild ginger (*Zingiber zerumbet*) with antibacterial activity against selective multidrug resistant oral bacteria. *Molecules*. 2022 Mar 21;27(6):2007.
 22. Ajmal, H., Sharif, Z., Zeshan, B., Zahra, N., Khan M. Biological and physical characterization of bacteriophage JHA against multidrug-resistant *Acinetobacter baumannii*. *Pakistan Journal of Pharmaceutical Sciences*. Pak. J. Pharm. Sci., Vol.35, No.5, September 2022, pp.1327-1331.
 23. Luo C, Wang Q, Guo R, Zhang J, Zhang J, Zhang R, Ma X, Wang P, Adam FE, Zeshan B, Yang Z. A novel Pseudorabies virus vaccine developed using HDR-CRISPR/Cas9 induces strong humoral and cellular immune response in mice. *Virus Research*. 2022 Dec 1;322:198937.
 24. Wang P, Ma X, Zhang R, Zhao Y, Hu R, Luo C, Zeshan B, Yang Z, Qiu L, Wang J, Liu H. The transcriptional characteristics of NADC34-like PRRSV in porcine alveolar macrophages. *Frontiers in Microbiology*. 2022;13.
 25. Ali T, Sarwar A, Anjum AA, Yaqub T, Zeshan B, Ali MA, Sattar MM. Activity of plant essential oils against antibiotic resistant *Enterococcus faecalis* isolated from diarrheic children. *Pakistan Journal of Pharmaceutical Sciences*. 2022 May 1;35(3).

26. Ma X, Wang P, Zhang R, Zhao Y, Wu Y, Luo C, Zeshan B, Yang Z, Qiu L, Zhou Y, Wang X. A NADC30-like PRRSV causes serious intestinal infections and tropism in piglets. *Veterinary Microbiology*. 2022 May 1;268:109397.
27. Zeshan B, Karobari MI, Afzal N, Siddiq A, Basha S, Basheer SN, Peeran SW, Mustafa M, Daud NH, Ahmed N, Yean CY. The usage of antibiotics by COVID-19 patients with comorbidities: the risk of increased antimicrobial resistance. *Antibiotics*. 2021 Dec 29;11(1):35.
28. Zhang R, Wang P, Ma X, Wu Y, Luo C, Qiu L, Zeshan B, Yang Z, Zhou Y, Wang X. Nanopore-Based Direct RNA-Sequencing Reveals a High-Resolution Transcriptional Landscape of Porcine Reproductive and Respiratory Syndrome Virus. *Viruses*. 2021 Dec 16;13(12):2531.
29. Kashif M, Afzal M, Zeshan B, Javed H, Batool S, Mazhar M. Molecular and Haematological Analysis of Dengue Virus-3 Among Children in Lahore, Pakistan. *Jundishapur Journal of Microbiology*. 2021 Jan 31;14(1).
30. Zahra N, Zeshan B, Qadri MM, Ishaq M, Afzal M, Ahmed N. Phenotypic and genotypic evaluation of antibiotic resistance of *Acinetobacter baumannii* bacteria isolated from surgical intensive care unit patients in Pakistan. *Jundishapur Journal of Microbiology*. 2021 Apr 30;14(4).
31. Yasir M, Zeshan B, Daud NH, Shahid I, Khalid H. Characterization of bacteriocin and chitinase producing bacterial isolates with broad-spectrum antimicrobial activities. *SN Applied Sciences*. 2021 Aug;3(8):1-2.
32. Ghafoor S, Zeshan B, Khan M, Kabir S. Evaluation of 16S rRNA methyltransferase gene in Aminoglycosides resistant isolates of cancer patients. *Pakistan Journal of Pharmaceutical Sciences*. 2021 Sep 1;34(5):1737-42.
33. Wahab AM, Zeshan B, Ahmed N, Afzal M, Naveed M. Molecular survey of *Campylobacter jejuni* in broiler chicken Farms in East coast of Peninsular, Malaysia. *Pakistan Journal of Zoology*. 2021 Aug 1;53(4):1555.
34. Afzal M, Zeshan B, Ishaq M, Batool S, Akmal Z. Biochemical profiling and HPLC directed antimicrobial and antioxidant activities of *achyranthes aspera*. *Plant Cell Biotechnology and Molecular Biology*. 2021 Aug 12:19-34.
35. Amin A, Latif Z, Sarwar A, Zeshan B, Saleem MA. Molecular characterization of mercury resistant bacteria isolated from tannery wastewater. *Pak J Zool*. 2020;53(5):1-7.
36. Tariq F, Ahmed N, Afzal M, Khan MA, Zeshan B. Synthesis, Characterization and antimicrobial activity of *Bacillus subtilis*-derived silver nanoparticles against multidrug-resistant bacteria. *Jundishapur Journal of Microbiology*. 2020 May 31;13(5).

37. Ahmed N, Ali Z, Riaz M, Zeshan B, Wattoo JI, Aslam MN. Evaluation of antibiotic resistance and virulence genes among clinical isolates of *Pseudomonas aeruginosa* from cancer patients. *Asian Pacific journal of cancer prevention: APJCP*. 2020 May;21(5):1333.
38. Hasham K, Ahmed N, Zeshan B. Circulating microRNAs in oncogenic viral infections: Potential diagnostic biomarkers. *SN Applied Sciences*. 2020 Mar;2(3):1-3.
39. Abdullah NF, Ismail A, Zeshan B, Mohamed M. Seroprevalence of Equine Herpesvirus-1 and Equine Herpesvirus-4 infections in horse population in Kelantan, Malaysia. *Malaysian Journal of Veterinary Research*, Volume 11 No. 2 July 2020, 46-52.
40. Zahra A, Naveed M, Ahmad I, Saleem MA, Zeshan B. The syringes catastrophe of the HIV outbreak in Faisalabad, Punjab, Pakistan. *Future Virology*. 2019 Sep;14(09):571-2.
41. Ahmed N, Zeshan B, Naveed M, Afzal M, Mohamed M. Antibiotic resistance profile in relation to virulence genes *fimH*, *hlyA* and *usp* of uropathogenic *E. coli* isolates in Lahore, Pakistan. *Trop. Biomed*. 2019 Jun 1;36:559-68.
42. Shakir A, Riaz S, Afzal M, Zeshan B, Batool S. Isolation and partial characterization of antimicrobial proteins/peptides from *Moringa oleifera*. *Life Science Journal of Pakistan*. 2019 Sep 24;1(2):10-6.
43. Afzal M, Iqbal R, Mahmood Z, Zeshan B, Wattoo JI. Study of GC-MS and HPLC characterized metabolic compounds in guava (*Psidium guajava* L.) leaves. *Pakistan Journal of Agricultural Sciences*. 2019 Sep 1;56(3).
44. Shoukat S, Zeeshan B. Comparison of methods for detection of *Candida* in bronchoalveolar lavage (BAL) of cancer patients. *Access Microbiology*. 2019 Mar 1;1(1A):164.
45. Bhatti PM, Zeshan B, Saleem MA, Qureshi M, Riaz S. Correlation of bla_{NDM} to antibiotic resistance patterns in *Klebsiella pneumoniae* isolates from Tertiary Care Hospital in Lahore, Pakistan. *Life Science Journal of Pakistan*. 2019 Sep 24;1(2):03-9.
46. Shoukat S, Zeeshan B. Comparison of methods for detection of *Candida* in bronchoalveolar lavage (BAL) of cancer patients. *Access Microbiology*. 2019 Mar 1;1(1A):164.
47. Abdullah NF, Zeshan B, Redhuan NE, Mohamed M, Daud NH. Detection of equine herpesvirus infection: conventional versus molecular approaches. *The Journal of Animal & Plant Sciences*. 2018;28(2):365-76.
48. Htoo NN, Zeshan B, Khaing AT, Kyaw T, Woldegiorgis EA, Khan MA. Creep feeding supplemented with roughages improve rumen morphology in pre-weaning goat kids. *Pakistan Journal of Zoology*. 2018 Apr 1;50(2).
49. Afzal M, Shahid M, Riaz M, Saleem MA, Wattoo JI, Zeshan B, Naveed M. Role of fungal-induced stress in biochemical and phytochemical profiling of *Peganum harmala*. *Journal of Biological Regulators and Homeostatic Agents*. 2018 Mar 1;32(2):379-84.
50. Zeshan B, Mushtaq MH, Wang X, Li W, Jiang P. Protective immune 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. *Veterinary microbiology*. 2011 Feb 24;148(1):8-17.
51. Zeshan B, Zhang L, Bai J, Wang X, Xu J, Jiang P. Immunogenicity and protective efficacy of a replication-defective infectious bronchitis virus vaccine using an adenovirus vector and administered in ovo. *Journal of virological methods*. 2010 Jun 1;166(1-2):54-9.
 52. Zeshan B. *Construction, Immunogenicity and Protective Efficacy of the Spike Glycoprotein (S1) of Infectious Bronchitis Virus with a Replication-defective Adenovirus Vector* (Doctoral dissertation, 南京农业大学).
 53. Zeshan B, Sadaf A, Othman NH. Recent progress in delivery of cancer related microRNAs. *Journal of Nanoscience and Nanotechnology*. 2016 Jul 1;16(7):6622-33.
 54. Sadaf A, Zeshan B, Wang Z, Zhang R, Xu S, Wang C, Cui Y. Toxicity evaluation of hydrophilic CdTe quantum dots and CdTe@ SiO₂ nanoparticles in mice. *Journal of Nanoscience and Nanotechnology*. 2012 Nov 1;12(11):8287-92.
 55. Sadaf A, Zeshan B, Wang Z, Zhang R, Xu S, Wang C, Yang J, Cui Y. A comparative study of CdTe quantum dots and CdTe@ SiO₂ nanoparticles: fabrication and cytotoxicity in HEK293 cells. *Journal of Nanoscience and Nanotechnology*. 2012 Sep 1;12(9):6900-6.
 56. Shi W, Du J, Qi Y, Liang G, Wang T, Li S, Xie S, Zeshan B, Xiao Z. Aberrant expression of serum miRNAs in schizophrenia. *Journal of psychiatric research*. 2012 Feb 1;46(2):198-204.
 57. Zeshan B, Saleem MA, Wattoo JI, Arshad MM, Mohamed M. Cloning and expression of truncated Spike (S-f200) Glycoprotein of Infectious Bronchitis Virus (IBV) in *Escherichia coli*, and its immunogenicity to mice. *Pakistan Journal of Zoology*. 2018;50(3):989-94.
 58. Ijaz K, Wattoo JI, Zeshan B, Majeed T, Riaz T, Khalid S, Baig S. Potential impact of microbial consortia in biomining and bioleaching of commercial metals. *Advancements in Life Sciences*. 2017 Nov 25;5(1):13-8.
 59. Waqas MY, Lisi H, Yang P, Ullah S, Zhang L, Zhang Q, Li Q, Ahmad N, Chen W, Zeshan B, Chen Q. Novel cellular evidence of oviduct secretions in the Chinese soft-shelled turtle *Pelodiscus sinensis*. *Journal of Experimental Zoology Part A: Ecological Genetics and Physiology*. 2015 Nov;323(9):655-65.
 60. Bai J, Chen X, Jiang K, Zeshan B, Jiang P. Identification of VP1 peptides diagnostic of encephalomyocarditis virus from swine. *Virology journal*. 2014 Dec;11(1):1-1.
 61. Bi Y, Lu L, Li J, Yin Y, Zhang Y, Gao H, Qin Z, Zeshan B, Liu J, Sun L, Liu W. Novel genetic reassortants in H9N2 influenza A viruses and their diverse pathogenicity to mice. *Virology journal*. 2011 Dec;8(1):1-1.

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8. CONFERENCES & WORKSHOPS

1. Adnan Aslam, Basit Zeshan. Surveillance of Resistance Profile and Risk Factors Analysis among *Pseudomonas aeruginosa* Clinical Isolates. Oral Presentation in 39th Pakistan Congress of Zoology (Int), March 4-6, 2019.
2. Samra Shaukat, Basit Zeshan. Comparison of Methods for Detection of *Candida* in Broncho-alveolar Lavage of Cancer. Oral Presentation in 39th Pakistan Congress of Zoology (Int), March 4-6, 2019. Patients
3. Hussain Muhammad, Zeshan Basit, Imran Abu Bakar. Mobile phones as a potential source of pathogenic bacterial spread. 6th Conference on Biological and Computational sciences to be held on December 13, 2018.
4. Salman Hussain, Basit Zeshan. Concomitant Presence of Pulmonary Tuberculosis in HIV Positive Patients. Int. conference on Innovation and commercialization in Biotechnology, 25-26th April, 2018.
5. Alaa Husna Bt Yaman, Basit Zeshan. Prevalence of Equine Dermatitis and Associated Risk Factors in Selected Districts in Kelantan, Malaysia. 38th Pakistan Congress of Zoology (International) 27 – March 1, 2018.
6. PCR detection and characterization of *Enterococcus* sp. from commercial broiler chicken flock. XXV World's Poultry Congress (WPC2016) Beijing, China. September 5-9, 2016.
7. Isolation, identification and characterization of one Nephropathogenic strain of Infectious Bronchitis Virus in Malaysia. XXV World's Poultry Congress (WPC2016) Beijing, China, September 5-9, 2016.
8. Enterococcal-associated vertebral osteoarthritis (EVOA) in broiler chicken in Malaysia: A case report. Proceeding of WVPA (Malaysia Branch) and WVPSA (Malaysia Branch) Scientific Conference, 21-23rd September 2015, Kuala-Lumpur.
9. Invited Speaker, 10th Biennial International Conference of Pakistan Society for Microbiology, March 25-28, 2015 held in Punjab University, Lahore.
10. An in-ovo-delivered recombinant adenovirus expressing chicken GMCSF enhance immune response and protection against infectious bronchitis virus challenge. Proceedings of the XVII Congress of the World Veterinary Poultry Association, August 14-18, 211 Cancun, Mexico.
11. Cloning and expression of truncated infectious bronchitis virus S1 glycoprotein (Sf200) in *Escherichia coli*. Proc of 16th WVPC, Marrakesh, Morocco, Nov 8-12, 2009 Nov 9, Session A2-Infectious Bronchitis.

12. Cloning and Expression of MHC Class II-Associated Invariant Chain in Escherichia Coli. Biology Theme, Proceedings of the 5th Saudi Science conference April, 14-18th 2012 Umm Al-Qurra University, Makah, KSA.
13. Efficacy and routes of administration of different vaccine types against Hydropericardium syndrome in broilers. Proc 5th Int Poultry conference 2008 Taba, Egypt, Session D11:1156–67.
14. Effects of Excessive Sodium Salts in Feed of Broiler Birds. Proceedings of the XIIIth European Poultry. Conference August, 23 – 27th, 2010, Tours (France).
15. Role of Vitamin E as Immunostimulant during Infectious Bursal Disease Virus Infection. Proceedings of the XIIIth European Poultry Conference August, 23 – 27th, 2010, France.
16. Faculty Development Training Program, Faculty of Life Science, UCP, Lahore 22nd Aug to 6th Sep 2020.
17. International Symposium with Universiti Sultan Zainal Abidin (UniSA), Malaysia, UCP October 19, 2019.
18. 18th One Day Symposium on “World Food Safety Day Celebration” Joint Collaboration of Punjab Food Authority and Faculty of Life Sciences. UCP 17th June 2019.
19. Recent Trends in Life Sciences: Mechanism and Genetics of Antimicrobial Resistance in Human Protozoan Parasites UCP March 2019.
20. Day Symposium regarding “Biochemical Techniques used in Diagnostics Labs” UCP 20th Sep. 2019.

9. ADMINISTRATIVE TASKS

1. Convener, PhD program re-initiation Department of Microbiology GC University Lahore
2. Member, Self-Assessment Report MPhil Microbiology GC University Lahore
3. Focal Person PGPR, MPhil Microbiology GC University Lahore
4. Program Coordinator, BS Microbiology GC University Lahore
5. Focal Person Dengue eradication, Department of Microbiology GC University Lahore
6. Member admission Committee for BS Microbiology GC University Lahore
7. Focal Person International Linkage at GC University Lahore
8. In-charge Department of Microbiology, University of Central Punjab (2016-2019)
9. Head of Department, Department of Microbiology, University of Central Punjab (2019-2021)
10. Acting Dean, Faculty of Life Sciences, University of Central Punjab (July 22, 2019 to August 10, 2019)

11. Program development, & accreditation of BS, MS & PhD Microbiology & Biotechnology at UCP, Lahore
12. BS Medical Lab. Technology at UCP (Program development & accreditation)
13. Five (5) new courses were developed and introduced
14. Program Coordinator, BS Microbiology, GCU Lahore 2024 to date

10. INTERNATIONAL COLLABORATIONS:

1. College of Veterinary Medicine, Nanjing Agricultural University, Nanjing China (Alumnus).
2. College of Veterinary Medicine, Northwest A&F University, Yangling, Shaanxi 712100, China.
3. Faculty of Veterinary Medicine, Universiti Malaysia Kelantan Malaysia
4. School of Medical Sciences, University Sains Malaysia, Kubang Kerian, Kota Bharu 16150, Kelantan, Malaysia
5. Lymphatics and Regenerative Surgery Laboratory, Obrien Institute and St Vincent's Institute, Fitzroy, Australia

11. MEMBERSHIP IN SOCIETIES

1. Pakistan Veterinary Medical Council
2. Malaysian Veterinary Medical Council
3. World Veterinary Malaysian Poultry Association, Malaysia Branch
4. American Society for Microbiology
5. Pakistan Zoological Society

12. JOURNALS ATTACHMENT AND REFEREE

1. Guest Editor of Journal **Molecules** (IF 4.92) Antimicrobial Activity of Plant Extracts and Their Derivatives of the Special Issue Molecule (MDPI Journal) (2022-2023)
2. Guest Editor Journal **Life** "New Advances in Antimicrobial Resistance in Nosocomial Pathogens". (2022-2023)
3. Referee PhD Thesis Evaluation, Universiti Sains Malaysia (USM) Malaysia
4. Referee MS Thesis Evaluation, Universiti Malaysia Sabah (UMS) Malaysia
5. Referee PhD and MPhil Thesis Evaluation, University & Animal Sciences, Lahore
6. Referee MPhil Thesis, Government College University Lahore & Virtual University Lahore
7. Member Board of Studies, Virtual University of Pakistan
8. Examiner for MPhil Thesis evaluation, IMBB University of Lahore
9. Examiner for MPhil Thesis evaluation, University of Central Punjab

10. Examiner for MPhil Thesis evaluation, CAMB University of the Punjab

13. ACADEMIC REFERENCES

1. PROF. DR PING JIANG (PhD Supervisor)

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2. PROF. DR SAFIA AHMED (MPhil Supervisor)

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