

IJAZ AHMAD

Department of Animal Health
The University of Agriculture Peshawar, Pakistan.
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Professional Experience:

Jan 17, 2018 till date Assistant Professor (Pharmacology) at the Department of Animal Health, The University of Agriculture Peshawar, Pakistan

- i. Teaching and conducting Practical of Pharmacology, to DVM students.
- ii. Teaching Antimicrobial agent and chemotherapy to DVM students.
- iii. Teaching Meat Hygiene and Milk Hygiene to DVM students.
- iv. Assist postgraduate students in research proposal and thesis work.
- v. Assist management in procurement of equipment's and chemicals for the Department of Animal Health.

May 21, 2011 to January 17, 2018: Lecturer at the Department of Animal Health, KPK Agricultural University Peshawar, Pakistan.

Educational Profile:

PhD in(Basic Veterinary Medicine)
Field of specialization: (Pharmacology)
2012-2016. Huazhong Agricultural University, Wuhan **China**

MS (Infection Biology)
2009-2011. Uppsala University, **Sweden**

M.Sc (Hons) Veterinary Pharmacology
2006- 2008. Sindh Agricultural University, Tandojam **Pakistan**

Doctor of Veterinary Medicine (DVM)
2000-2005 Sindh Agriculture University Tandojam **Pakistan.**

Research Project during Master and PhD Degree:

- ❖ Shielding of biomaterial and transplant organs from innate immunity at Rudbeck laboratory Uppsala university hospital, Sweden.
- ❖ Diclofenac induced effects in goat in Sindh Agriculture University Tandojam.
- ❖ PK/PD modeling for cefquinome against staphylococcus aureus causing septicemia in cattle.

Awards: Research Contribution Award (2012-2016) from HZAU China.

Techniques and methods used

HPLC-UV
ELIZA,
Immuno
Histochemistry,
PCR,
Gel electrophoresis,
Cell culturing,
Blood,sample handling,
RNA extraction,
Spectrophotometer,
Heart
Perfusion Apparatus.
PK-PD Modeling,
Pharmacokinetics,
Pharmacodynamics,
MIC, MBC, MPC,
Post antibiotic effect,
Growth and Inhibition Curve.

Computer Skills

Graph Pad Prism
software for data
analysis,
Photoshop,
Microsoft word,
Power Point,
Excel.
Winonlin,
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Scholarship winner:

- ❖ Scholarship holder and merit winner throughout DVM degree program.
- ❖ Winner of Quide-Azam Aligarh scholarship during M.S degree program.
- ❖ Chinese Government Scholarship for PhD degree.

Lists of Grants:

Project completed/Awarded

As Principal Investigator

- 1- Project from HEC under SRGP “In vitro Pharmacodynamics study of Enrofloxacin against local isolates of Escherichia Coli” (0.44 million).
- 2- Funding from HEC under NRPU “Effect of different dosage of Enrofloxacin on clinical efficacy and resistance development against fowl typhoid. (3.9 million).

As a CO-Principal Investigator:

- 3- Title: Molecular characterization of Mycoplasma capricolum subsp. capripneumoniae Pakistan strain for the establishment of effective diagnostics and vaccines under PAK-US Project (20.4 million)

Project approved for Funding as a PI (2019):

- 4- Project approved for funding by Agriculture Linkage Program (ALP) PARC, title: PK/PD model for dose optimization of Cefquinome against *Pasterurella multocida* causing hemorrhagic septicemia in buffalo calf. (2.93 million).

Awarded project as a member from Pakistan (2022):

- 5- International Project submitted as a Collaborator (JPIAMR NETWORK CALL 2022) Title: Standardization of diagnostics and antimicrobial susceptibility testing and clinical interpretation in animal *mycoplasmas*.

Project Submitted:

1- Project submitted for Funding in collaboration with France:

Pak-France PERIDOT Research Programme Phase IV 2019-20, Title: Mechanism of resistance development in *Pasturella multocida* and precise dose regimen based on PK-PD modeling (1 Million).

2- Project submitted to Higher education Commission Islamabad and World Bank

Title: Establishment of Regional Center for Determination and Screening of Drug Residues in Food Commodities at University of Haripur (60 Million PKR).

3- Project submitted to Higher education Commission Islamabad and World Bank

Title: Development of phytogetic prebiotics to produce economical, safe and health poultry products (10.6 million).

4- Project submitted to “Pak-Sri Lanka Joint Research Programme”

Title: In vitro Pharmacodynamics study of Enrofloxacin against local isolates of *Salmonella Gallinarum* (2 million).

5- Project Submitted to Higher education Commission Islamabad under CPEC–COLLABORATIVE RESEARCH GRANT-2022 title “Strategies to minimize the antimicrobial resistance in food animals”.

Research Students/Theses Supervision

Graduate level-MSc. (Hons)/M.Phil.

S.#	Student Name	Role	Department	Research Title	Year of completion
1	Sundus Bilal	Major Member	Animal Health	Study on Isolation, Pathogenesis and Susceptibility break point of E-Coli against Enrofloxacin	2019
2	Muhammad Farooq	Minor member	IBGE, UAP	Polymorphism and sequence analysis of prion protein gene (PRNP) in local sheep breeds of	2019

				Khyber Pakhtunkhwa.	
3	Usman Ali	Minor member	Department of Livestock Management	Changes in milk quality, quantity and udder health of Holstein Friesian cattle with milking frequency	2019
4	Amina Habib	Minor member	Agriculture Chemistry	Evaluation of nutritional and antioxidant potential of rice bran for functional food applications	2019
5	Tahseen Ullah	Major Member	Poultry Science	Isolation and identification of <i>salmonella gallinarum</i> from broiler in district Peshawar and its susceptibility to enrofloxacin.	2020

Lists of Research Publications:

Publications as First Author

1. **Ahmad I**, Hao H, Huang L, Sanders P, Wang X, Chen D, Tao Y, Xie S, Xiuhua K, Li J, Dan W and Yuan Z (2015) Integration of PK/PD for dose optimization of Cefquinome against *Staphylococcus aureus* causing septicemia in cattle. *Front. Microbiol.* 6:588. doi: 10.3389/fmicb.2015.00588 (IF: 4.16).
2. **Ahmad I**, Lingli Huang, Haihong Hao, Pascal Sanders, Zonghui Yuan: Application of PK/PD Modeling in Veterinary Field: Dose Optimization and Drug Resistance Prediction. *BioMed Research International* 02/2016; 2016(8). DOI:10.1155/2016/5465678 (IF: 2.134).
3. **Saeed AHMED***, **Ijaz AHMAD***, Shakoor AHMAD, Zahir SHAH, Muqadar SHAH, Farhan Anwar KHAN, Ijaz AHMAD. Analysis of Pilus Biogenesis Genes in Bacteria Expressing Type IV Pili. *Kafkas Univ Vet Fak Derg*, 25 (1): 125-128, 2019. (IF: 0.45).
4. **Ahmad, I.**, T. A. Qureshi, F. A. Khan, S. A. K. Mughal, U. Sadique, Z. Shah, S. Khan, Z. U. Hassan 2012. Evaluation of biochemical effects of Diclofenac sodium in goats. *The Journal of Animal and Plant Sciences*, 22(2 Suppl.): 1-4. (IF: 0.638)
5. **Ahmad, I.**, T. A. Qureshi, U. Sadique, S. A. Khan, S. Ahmed, Z. U. Rehman, S. Bahadar and M. Mushtaq 2013. Hematological effects of Diclofenac sodium in Goats. *The Journal of Animal and Plant Sciences*, 23(1 Suppl.): 103-107. (IF: 0.638).
6. **Ijaz Ahmad**, Haihong Hao, Pascal Sanders, Zafar Iqbal, Saeed Ahmed, Frahan Anwar, Zahir shah, Muhammad Ibrahim and Lingli Huang. New HPLC Method for Determination of Cefquinome in Cattle Plasma and its Application for Pharmacokinetic Study. *Pakistan J. Zool.*, pp 1-8, 2022.

Research Publications in impact factor journals (2022)

- 1- **Ijaz Ahmad, Haihong Hao, Pascal Sanders, Zafar Iqbal, Saeed Ahmed, Farhan Anwar Khan, Zahir Shah, Muhammad Ibrahim and Lingli Huang.** New HPLC Method for Determination of Cefquinome in Cattle Plasma and its Application for Pharmacokinetic Study. *Pakistan J. Zool.*, pp 1-8, 2022 .
- 2- Muhammad Ibrahim, Sohail Ahmad, Israr Ud Din, Waqas Ahmad, Ijaz Ahmad, Sher Hayat Khan, Ihtesham Ul Haq, Jehan Zeb and Olivier Andre Sparagano. Microsatellite Analysis Revealed Potential DNA Markers for Gestation Length and Sub-Population Diversity in Kari Sheep. *Animals* 2022, 12, 3292.
- 3- X. Cai, M. Jin, L.Yao, B. He, S. Ahmed, W. Safdar, I. Ahmad, D. Cheng, Z. Lei and T. Sun Physicochemical Properties, Pharmacokinetics, Toxicology and Application of Nanocarriers, *J. Mater. Chem. B*, 2022,

Research Publications in impact factor journals (2021)

- 4- Mumtazur Rahman, Farhan Anwar Khan, Umar Sadique, **Ijaz Ahmad**, Shakoor Ahmad, Faisal Ahmad, Hayatullah Khan, Muhammad Saeed, Faiz Ur Rehman, Ibrar Hussain, M. Faraz Khan, M. Izhar ul Haque and Hanif-ur-Rehman. In-vitro Susceptibility of *Mycoplasma capricolum* Subsp. *capripneumoniae* Pakistan Strain to Commercially Available Quinolones. *Pakistan J. Zool.*, pp 1-7, 2021 (0.28).
- 5- Zahir Shah, Shakoor Ahmad, **Ijaz Ahmad**, Taif Shah, Farhan Anwar Khan, Haq Amanullah Antinociceptive, physiologic and biochemical effects of electroacupuncture combined with xylazine in hybrid goats. *Vet Anaesth Analg* 2021 Sep;48(5):671-678. doi: 10.1016/j.vaa.2021.06.014.

Research Publications (2020)

- 6- Fang Wang, Kun Mi , **Ijaz Ahmad**, Shuyu Xie, Hafiz Iftikhar Hussain, Zonghui Yuan, Menghong Dai, Lingli Huang, Antibacterial activity of cyadox against *Clostridium perfringens* in broilers and a dosage regimen design based on pharmacokinetic-pharmacodynamic modeling. *Microbial Pathogenesis*, Volume 141, April 2020, 103981.
- 7- Muqadar Shah, Hafsa Zaneb, Saima Masood, Anas Sarwar Qureshi, Haq Aman Ullah, Arbab Sikandar, Salahud Din, **Ijaz Ahmad**, Muhammad Shoaib Khan, Habib Ur Rehman, Muhammad Usman. Effect of single or combined supplementation of zinc and probiotics on muscle and bone characteristics and haematobiochemical profile in broilers. *Veterinari Medicina*, 65, 2020 (03): 134–142.
- 8- Saeed Ahmed, Jianan Ning, Dapeng Peng, Ting Chen, **Ijaz Ahmad**, Aashaq Ali, Zhixin Lei, Muhammad Abu bakr Shabbir, Guyue Cheng & Zonghui Yuan (2020) Current advances in immunoassays for the detection of antibiotics residues: a review, *Food and Agricultural Immunology*, 31:1, 268-290, DOI: 10.1080/09540105.2019.1707171.
- 9- FaisalAhmad,HayatullahKhan,Farhan Anwar Khan, Bryan D.Carson, UmarSadique,**Ijaz Ahmad**,Muhammad Saeed, Faiz UrRehman,Hanif UrRehman. The first isolation and molecular characterization of *Mycoplasma capricolum* subsp. *capripneumoniae* Pakistan strain: A causative agent of contagious caprine pleuropneumonia. *Journal of Microbiology, Immunology and Infection*. <https://doi.org/10.1016/j.jmii.2020.06.002>
- 10- Muhammad Ishfaq., Wanying Hu., Mohammad Zeb Khan., IjazAhmad., WenxinGuo., Jichang Li 2020. Current Status of Vaccine Research, Development and Challenges of Vaccines for *Mycoplasma gallisepticum*. *Poultry Science* <https://doi.org/10.1016/j.psj.2020.06.014>.

Research Publications (2019)

- 11- Muhammad Ishfaq, Wei Zhang, Wanying Hu, Syed Waqas Ali Shah, Yuhao Liu, Jian Wang, Zhiyong Wu, **Ijaz Ahmad**, Jichang Li (2019). Antagonistic Effects of Baicalin on *Mycoplasma gallisepticum*-Induced Inflammation and Apoptosis by Restoring Energy Metabolism in the Chicken Lungs. *Infection and Drug Resistance*, Volume 2019: 3075—3089 (IF: 1.47).
- 12- Tasbihullah, Sadeeq ur Rahman, Tariq Ali, Umer Saddique, Shakoor Ahmad, Muhammad Shafiq, Sultan Ayaz, Hamayun Khan, **Ijaz Ahmad**, Asadullah, Raheela Taj, Hafiz Nidaullah and Alamgir Khan (2019). High Occurrence Rate of Multidrug-Resistant ESBL-Producing *E. coli* Recovered from Table Eggs in District Peshawar, Pakistan. *Pakistan Journal of Zoology*, vol. 50(0) (IF: 0.79).
- 13- Khan H, Khan FA, Sadique U, Ahmad S, Hassan ZU, Ahmad F, Shah M, **Ahmad I**, Shah Z, Rehman ZU (2019). Genotoxic and toxicopathological effect of aflatoxin B1 in grass carp (*Ctenopharyngodon idella*). *Kafkas Univ Vet Fak Derg*, (Article in Press). DOI: 10.9775/kvfd.2019.21988 (0.458).
- 14- Saeed AHMED, **Ijaz AHMAD**, Shakoor AHMAD, Zahir SHAH, Muqadar SHAH, Farhan Anwar KHAN, Ijaz AHMAD. Analysis of Pilus Biogenesis Genes in Bacteria Expressing Type IV Pili. *Kafkas Univ Vet Fak Derg*, 25 (1): 125-128, 2019. (IF: 0.45).

Research Publications (2018)

- 15- Lingli Huang, Haiyang Zhang, Mei Li, Ijaz Ahmad, Yulian Wang and Zonghui Yuan. Pharmacokinetics-pharmacodynamics modelling of tylosin against *Streptococcus suis* in pigs. *BMC Veterinary Research* (2018) 14:319. (IF: 2)
- 16- **Book Chapter Published:**PK/PD for prediction and contain of antimicrobial resistance (July 2018). In book: *Fighting Antimicrobial Resistance*. DOI: 10.5599/obp.15.10, pp.371-388

Research Publications (2017)

- 17- Ahmed S, Ning J, Cheng G, **Ahmad I**, Li J, Mingyue L, Qu W, Iqbal M, Shabbir MA, Yuan Z. Receptor-based screening assays for the detection of antibiotics residues - A review. *Talanta*. 2017 May 1;166:176-186. doi: 10.1016/j.talanta.2017.01.057. Epub 2017 Jan 21. (IF: 4.07)

Research Publications(2016)

- 18- **Ahmad I**, Lingli Huang, Haihong Hao, Pascal Sanders, Zonghui Yuan: Application of PK/PD Modeling in Veterinary Field: Dose Optimization and Drug Resistance Prediction. *BioMed Research International* 02/2016; 2016(8). DOI:10.1155/2016/5465678 (IF: 2.134).