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Department: Department of Biological Sciences (DBS)
University: National University of Medical Sciences (NUMS)
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Research Interest:

Antibiotic Residue Detection from Food and Environmental Matrices, Bacteriophage Therapy.

Education

- **PhD:** Basic Veterinary Medicine (Field of Specialization; Antibiotic Residue and Food Microbiology) (2014 -2019) Huazhong Agricultural University, *Wuhan, China*.
- **MS:** Microbiology (2011 -2013) Stockholm University, *Stockholm, Sweden*.
- **BSc Hons:** Microbiology (2004 -2008) Hazara University, *Mansehra, Pakistan*

Experience

- Currently serving as Assistant Professor, Department of Biological Sciences, National University of Medical Sciences, Rawalpindi, Pakistan
- Served as a Lecturer of Microbiology in Department of Animal Health, University of Agriculture Peshawar Pakistan, (*Sep 2008 to Jul 2009*).
- Served as a Lecturer of Microbiology in Department of Microbiology, Government Postgraduate College, Mandian, Abbottabad, Pakistan (*Mar 2014 to July 2014*).
- Research Traineeship in Prokaryotic Genetics (Aug 2011 –Oct 2011) at Department of Molecular Biosciences, The Wenner Gren Institute (MBW) Stockholm, Sweden

Publication Highlights

Book Chapters

1. Abdul Sajid, **Saeed Ahmed**, Muhammad Abu Bakr Shabbir, Muhammad Kashif Maan, Ijaz Ahmed, Jun Li, Zonghui Yuan, Haihong Hao: PK/PD for prediction and contain of antimicrobial resistance. Fighting Antimicrobial Resistance, 07/2018: pages 371-388, ISBN: 978-953-56942-6-7.
2. Ijaz Ahmad, **Saeed Ahmed**, Shakoora Ahmad: Diclofenac induced effect. 01/2017; Lambert academic publishing

Journal Publications

First Author

1. **Saeed Ahmed**, Jianan Ning, Guyue Cheng, Muhammad Kashif Maan, Ting Chen, Ijaz Ahmad, Samah Attia Algharib, Zonghui Yuan: Development and validation of an enzyme-linked receptor assay based on mutant protein I188K/S19C/G24C for 40 beta- lactams antibiotics detection in 13 food samples. *Microchemical Journal* Volume 152, January 2020, 104354. ISSN 0026-265X.
2. **Jianan and Saeed Ahmed**, Guyue Cheng, Ting Chen, Yulian Wang, Dapeng Peng, Zonghui Yuan: Analysis of the stability and affinity of BlaR-CTD protein to β -lactam antibiotics based on docking and mutagenesis studies. *Journal of Biological Engineering* 12/2019; 13(1). ISSN: 1754-1611.
3. **Saeed Ahmed** and Jianan Ning, Guyue Cheng, Ijaz Ahmad, Jun Li, Liu Mingyue, Wei Qu, Mujahid Iqbal, M.A.B. Shabbir, Zonghui Yuan: Receptor-based screening assays for the detection of antibiotics residues – A review. *Talanta* 05/2017; 166:176-186. ISSN: 0039-9140.
4. **Saeed AHMED**, Ijaz AHMAD, Shakoor AHMAD, Zahir SHAH, Muqadar SHAH, Farhan Anwar KHAN: Analysis of Pilus Biogenesis Genes in Bacteria Expressing Type IV Pili, *Journal of Kafkas Üniversitesi Veteriner Fakültesi Dergisi* -128. ISSN 1300-6045.
5. **Saeed Ahmed**, Jianan Ning, Dapeng Peng, Ting Chen, Ijaz Ahmad, Aashaq Ali, Zhixin Lei, Muhammad Abu bakr Shabbir, Guyue Cheng & Zonghui Yuan, Current advances in Immunoassays for the detection of antibiotics residues (A review) *Journal of Food and Agriculture Immunology*, 31, 1, 2020, 268-290. ISSN: 1465-3443.

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6. Lulu Huang, **Saeed Ahmed**, Yufeng Gu, Junhong Huang, Boyu An, Cuirong Wu, Yujie Zhou and Guyue Cheng, The Effects of Natural Products and Environmental Conditions on Antimicrobial Resistance, *Journal of Molecules*, July 2021.
7. Liangyu Peng, Suliman Khan, Ashaq Ali, **Saeed Ahmed**, Liaqat Ali, Guang Han & Yang Jing Vertical transmission potential of SARS-CoV-2 from infected mother to twin neonates, *Journal of Future Virology*, June 2021
8. Azhar mehmood, suliman khan, sajid khan, **Saeed Ahmed**, et al, In Silico Analysis of Quranic and Prophetic Medicinal Plants for the Treatment of Infectious Viral Diseases Including Corona Virus, *Saudi Journal of Biological Science*, Feb 23, 2021 doi: [10.1016/j.sjbs.2021.02.058](https://doi.org/10.1016/j.sjbs.2021.02.058)

2020

9. Rabeea Siddique, Qian Bai, Muhammad Adnan Shereen, Ghulam Nabi, Guang Han, Farooq Rashid, Saeed Ahmed*, Aigerim Benzhonov, Mengzhou Xue, and Suliman Khan Evidence and speculations: vaccines and therapeutic options for COVID-19 pandemic. *Human Vaccines & Immunotherapeutics*, Oct 2020.
10. Samah Attia Alghariba, Ali Dawood, Kaixiang Zhoua, Dongmei Chena, Chao Lia, Kuiyu Menga, Muhammad Kashif Maaa, **Saeed Ahmed**, Lingli Huangc, Shuyu Xiea, Designing, structural determination and biological effects of rifaximin loaded chitosan- carboxymethyl chitosan nanogel, *Journal of Carbohydrate Polymers* 248 July (2020) 116782. ISSN 0144-

8617.

11. Muhammad Hamza, Ashaq Ali, Suliman Khan, **Saeed Ahmed**, Zarlish Attique, Saad Ur Rehman, Ayesha Khan, Hussain Ali, Muhammad Rizwan, Anum Munir, Arshad Mehmood Khan, Faiza Siddique, nCoV-19 peptides mass fingerprinting identification, binding, and blocking of inhibitors flavonoids and anthraquinone of *Moringa oleifera* and hydroxychloroquine, *Journal of Biomolecular Structure and Dynamics*, Published 22 June, 2020, ISSN: 1538-0254.
12. Muhammad Kashif Maan, Adeel Sattard, Kun Mia, Muhammad AbuBakr Shabbir, Shuyu Xie, Li Xin, **Saeed Ahmed**, Samah Attia Algharib, Lingli Huang, ZonghuiYuan, Integration of PK/PD for dose optimization of aditoprim against *Trueperella pyogenes* causing endometritis in bovines, *Journal of Microbial Pathogenesis*, Volume 142, May 2020, 104097, ISSN 0882-4010.

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13. Guyue Cheng, Jianan Ning, **Saeed Ahmed**, Junhong Huang, Rizwan Ullah, Boyu An, Haihong Hao, Menghong Dai, Lingli Huang, Xu Wang, Zonghui Yuan: Selection and dissemination of antimicrobial resistance in Agri-food production. *Antimicrobial Resistance & Infection Control* 12/2019; 8(1), 158. ISSN: 2047-2994.
14. Muhammad Abu Bakr Shabbir, Muhammad Zubair Shabbir, Qin Wu, Sammina Mahmood, Abdul Sajid, Muhammad Kashif Maan, **Saeed Ahmed**, Umer Naveed, Haihong Hao, Zonghui Yuan: CRISPR-cas system: biological function in microbes and its use to treat antimicrobial resistant pathogens. *Annals of Clinical Microbiology and Antimicrobials* 12/2019; 18(1) 21. ISSN: 1476-0711.
15. Deyu Huang, LuQing Cui, **Saeed Ahmed**, Fatima Zainab, Qinghua Wu, Xu Wang, Zonghui Yuan: An overview of epigenetic agents and natural nutrition products targeting DNA methyltransferase, histone deacetylases and microRNAs. *Food and Chemical Toxicology* 123, 1, 2019, 574-594. ISSN: 0278-6915.
16. Xiaoya Han, Feng Sheng, Dexin Kong, Yulian Wang, Yuanhu Pan, Mo Chen, Yanfei Tao, Zhenli Liu, **Saeed Ahmed**, Zonghui Yuan, Dapeng Peng: Broad-spectrum monoclonal antibody and a sensitive multi-residue indirect competitive enzyme-linked immunosorbent assay for the antibacterial synergists in samples of animal origin. *Food Chemistry* 5/2019; 280. 20-26. ISSN: 0308-8146.

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17. Muhammad AB Shabbir, Qin Wu, Muhammad Z Shabbir, Abdul Sajid, **Saeed Ahmed**, Adeel Sattar, Yanping Tang, Jun Li, Muhammad K Maan, Haihong Hao, Zonghui Yuan: The CRISPR-cas system promotes antimicrobial resistance in *Campylobacter jejuni*. *Future Microbiology* 13(16), 12/2018; 1157-1774. ISSN: 1746-0921.
18. Yanping Wang, Ling Zhang, **Saeed Ahmed**, Yonghong Liu, Xianqiang Li: Pharmacokinetic of florfenicol in pulmonary epithelial lining fluid of swine and effects of anesthetic agent on drug plasma disposition kinetics. *Arquivo Brasileiro de Medicina Veterinária e Zootecnia* 10/2018; 70(5):1497-1504. ISSN 1678-4162.

19. Qianying Liu, Zhixin Lei, Qin Wu, Ihsan Awais, Muhammad A. B. Shabbir, **Saeed Ahmed**, Zainab Fatima, Xu Wang, Yuanhu Pan, Shuyu Xie, Zonghui Yuan: The Reproductive Toxicity of Mequindox in a Two-Generation Study in Wistar Rats. *Frontiers in Pharmacology* 9, 08/2018, 870. ISSN 1663-9812.
20. Zhixin Lei, Qianying Liu, Yi Qi, Bing Yang, Haseeb Khaliq, Jincheng Xiong, Gopi Krishna Moku, **Saeed Ahmed**, Kun Li, Hui Zhang, Wenqiu Zhang, Jiyue Cao, Qigai He: Optimal Regimens and Cutoff Evaluation of Tildipirosin Against *Pasteurella multocida*. *Frontiers in Pharmacology* 9, 07/2018, 765. ISSN 1663-9812.
21. L. Zhang, Y. Li, Y. Wang, A. Sajid, **Saeed Ahmed**, X. Li: Integration of pharmacokinetic–pharmacodynamic for dose optimization of doxycycline against *Haemophilus parasuis* in pigs. *Journal of Veterinary Pharmacology and Therapeutics*, 41(1), 2018, 706-718.
22. Zhixin Lei, Qianying Liu, Bing Yang, Haseeb Khaliq, **Saeed Ahmed**, Bowen Fan, Jiyue Cao, Qigai He: Evaluation of Marbofloxacin in Beagle Dogs After Oral Dosing: Preclinical Safety Evaluation and Comparative Pharmacokinetics of Two Different Tablets. *Frontiers in Pharmacology* 04/2018; 9:306. ISSN 1663-9812.
23. Zhixin Lei, Qianying Liu, Shuaike Yang, Bing Yang, Haseeb Khaliq, Kun Li, **Saeed Ahmed**, Abdul Sajid, Bingzhou Zhang, Pin Chen, Yinsheng Qiu, Jiyue Cao, Qigai He: PK-PD Integration Modeling and Cutoff Value of Florfenicol against *Streptococcus suis* in Pigs. *Frontiers in Pharmacology* 9, 01/2018, 2. ISSN 1663-9812.
24. Guoliang Dong, Yuanhu Pan, Yulian Wang, **Saeed Ahmed**, Zhenli Liu, Dapeng Peng, Zonghui Yuan: Preparation of a broad-spectrum anti-zearalenone and its primary analogues antibody and its application in an indirect competitive enzyme-linked immunosorbent assay. *Food Chemistry* 247, 5/2018, 8-15. ISSN: 0308-8146.
25. Zhixin Lei, Qianying Liu, Bing Yang, **Saeed Ahmed**, Jiyue Cao, Qigai He: The pharmacokinetic-pharmacodynamic modeling and cut-off values of tildipirosin against *Haemophilus parasuis*. *Oncotarget* 9(2), 1/2018, 1673. ISSN 1949-2553.

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26. Jun Li, Haihong Hao, Guyue Cheng, Xu Wang, **Saeed Ahmed**, Muhammad Abu Bakr Shabbir, Zhenli Liu, Menghong Dai, Zonghui Yuan: The effects of different enrofloxacin dosages on clinical efficacy and resistance development in chickens experimentally infected with *Salmonella Typhimurium*. *Scientific Reports* 7(1), 12/2017, 1-12. ISSN 2045-2322.
27. Zhixin Lei, Shulin Fu, Bing Yang, Qianying Liu, **Saeed Ahmed**, Lei Xu, Jincheng Xiong, Jiyue Cao, Yinsheng Qiu: Comparative transcriptional profiling of tildipirosin-resistant and sensitive *Haemophilus parasuis*. *Scientific Reports* 7(1), 08/2017, 1-15. ISSN 2045-2322.
28. Bing Yang, Zhixin Lei, Yishuang Zhao, **Saeed Ahmed**, Chunqun Wang, Shishuo Zhang, Shulin Fu, Jiyue Cao, Yinsheng Qiu: Combination Susceptibility Testing of Common Antimicrobials in Vitro and the Effects of Sub-MIC of Antimicrobials on *Staphylococcus aureus* Biofilm Formation. *Frontiers in Microbiology* 8, 11/2017, 2125. ISSN 1664-302X.
29. Jun Li, Haihong Hao, Guyue Cheng, Chunbei Liu, Saeed Ahmed, Muhammad A. B. Shabbir, Hafiz I. Hussain, Menghong Dai, Zonghui Yuan: Microbial Shifts in the Intestinal

Microbiota of Salmonella Infected Chickens in Response to Enrofloxacin. *Frontiers in Microbiology* 8, 09/2017, 1711. ISSN 1664-302X.

30. Qianying Liu, Zhixin Lei, Anxiong Huang, Qirong Lu, Xu Wang, Saeed Ahmed, Ihsan Awais, Zonghui Yuan: Mechanisms of the Testis Toxicity Induced by Chronic Exposure to Mequindox. *Frontiers in Pharmacology* 8, 09/2017, 679. ISSN 1663-9812.
31. Ting Chen, Guyue Cheng, Saeed Ahmed, Yulian Wang, Xu Wang, Haihong Hao, Zonghui Yuan: New methodologies in screening of antibiotic residues in animal-derived foods: Biosensors. *Talanta* 175, 07/2017, 435-442. ISSN: 0039-9140.
32. Jun Li, Shuyu Xie, Saeed Ahmed, Funan Wang, Yufeng Gu, Chaonan Zhang, Ximan Chai, Yalan Wu, Jinxia Cai, Guyue Cheng: Antimicrobial Activity and Resistance: Influencing Factors. *Frontiers in Pharmacology* 8, 06/2017, 364. ISSN 1663-9812.
33. Zhixin Lei, Qianying Liu, Bing Yang, Saeed Ahmed, Jincheng Xiong, Tingting Song, Pin Chen, Jiyue Cao, Qigai He: Evaluation of Bioequivalence of Two Long-Acting 20% Oxytetracycline Formulations in Pigs. *Frontiers in veterinary science* 4(4), 05/2017. 2297-1769.
34. Jiyue Cao, Lei Z Liu, Yang B Xiong, Zhixin Lei, Qianying Liu, Bing Yang, Jincheng Xiong, Kun Li, Saeed Ahmed, Liping Hong, Pin Chen, Qigai He: Clinical Efficacy and Residue Depletion of 10% Enrofloxacin Enteric-Coated Granules in Pigs. *Frontiers in Pharmacology* 8(8), 03/2017, 294. ISSN 1663-9812.

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35. Mujahid Iqbal, **Saeed Ahmed**: Aqueous two-phase system (ATPS): an overview and advances in its applications. *Biological Procedures Online* 18(1), 10/2016, 18. ISSN: 1480-9222.
36. Muhammad Abu, Bakr Shabbir, Haihong Hao, Muhammad Zubair Shabbir, Hafiz Iftikhar Hussain, Zahid Iqbal, **Saeed Ahmed**, Adeel Sattar, Mujahid Iqbal, Jun Li, Zonghui Yuan: Survival and Evolution of CRISPR/Cas System in Prokaryotes and Its Applications. *Frontiers in Immunology* 7, 10/2016, 375. ISSN 1664-3224.
37. Guyue Cheng, Menghong Dai, **Saeed Ahmed**, Haihong Hao, Xu Wang, Zonghui Yuan: Antimicrobial Drugs in Fighting against Antimicrobial Resistance. *Frontiers in Microbiology* 7, 04/2016, 470. ISSN 1664-302X.

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38. Din, A. M. U, S. A. Khan, **S. Ahmed**, A study on the seroprevalence of Brucellosis in Human and Goat population of district Bhimber azad jamu and kashmir. *Journal of Animal and Plant Sciences* 23, 11/2013, 113-8. ISSN 1018-7081.

39. I Ahmad, T. A. Qureshi, U. Sadique, S. A. Khan, **S. Ahmed**, Z. U. Rehman, S. Bahadar, M. Mushtaq: HEMATOLOGICAL EFFECTS OF DICLOFENAC SODIUM IN GOAT. Journal of Animal and Plant Sciences 23(1), 01/2013, 103-107. ISSN 1018-7081.

Workshop/Seminars as a Guest Speaker

1. One-day seminar arranged by Govt post Graduate College, Mandian, Abottabad, Pakistan by Method development for Antibiotic residue detections from food matrices.
2. One-day Workshop on Research Methodology and how to publish a Research organized by GPGC Mansehra under the patronage of Higher Education Department, KP
3. Paper presentation in Second Annual Symposium for International Students, organized by Huazhong Agriculture University, Wuhan, China

Attended as participant workshops/webinars/Seminars

1. International workshop on biosafety management and techniques Dec 2020, Wuhan, China
2. Workshop on Challenging for the Healthcare in Pandemics, COMSTECH, Islamabad, Pakistan, Mar 2021
3. Vaccination in Pakistan and related Concern, Webinar arranged by American Society of Microbiology 14th April 2021
4. The story of Microbiology and ASM in Pakistan, Webinar arranged by American Society of Microbiology 2nd June 2021
5. Covid-19: Available lab test, Interpretation and Misunderstandings, Webinar arranged by American Society of Microbiology Mar 2021
6. Online certification Course entitled Optimum use of Analytical and Preparative HPLCs, Arranged by COMSTECH, Islamabad, Mar 2021
7. International workshop on Chemical Safety and Security in Academic and Industrial laboratories, Arranged by COMSTECH, Islamabad, Aug 2021

Editorial Board Member

1. Access Microbiology (Microbiology Society, UK)
2. Journal of Food Science and Engineering
3. International Journal of Microbiology and Biotechnology(IJMB)
4. International Journal of Research in Pharmacy and Pharmaceutical Sciences
5. EC Veterinary Science journal

Reviewer of Journals

1. Journal of Biological Regulators and Homeostatic Agents
2. Journal of Microbial Ecology
3. American Journal of Tropical Medicine and Hygiene
4. Journal of Cell Cycle
5. Frontiers in Medicine

References

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