## PERSONAL INFORMATION


| | |
|---|---|
| **NAME** | Syed Qaswar Ali Shah |
| **ADDRESS** | C-381 Buch Executive Villas Bosan Road Multan |
| **MOBILE** | +92 304 7268831 |
| **EMAIL** | *syedqaswaralishah@cuvas.edu.pk* ; qaswarali@gmail.com |
| **DATE OF BIRTH** | 09 October1972 |


## WORK EXPERIENCE

### RESEARCH EXPERIENCE

**March 2016 - Todate**

**Research Supervisor (M.Phil., PhD Scholars)**
**Cholistan University of Veterinary and Animal Sciences Bahawalpur, Punjab, Pakistan**
**Projects:**

- Antimicrobial resistance in fish, livestock and human pathogens
- Fish parasites infestation and remedies
- Effects Physicochemical parameters and feeding regime on fish growth
- Epidemiology of multidrug resistant *Salmonella enterica* isolated from houbara bustard and resistance modulation through nanocomposite coupled antibiotics
- Molecular epidemiology and characterization of blood-borne parasites of camel in Cholistan, Pakistan
- My role in the projects included conceiving the research ideas, guiding researchers through hands-on training in various scientific techniques and equipment, conducting data analysis, revising the final drafts of theses and research articles, arranging research funding, and troubleshooting issues related to scientific research.

**March 2014 – Feb 2016**

**Postdoc Researcher**
**Department of Veterinary Disease Biology, University of Copenhagen**

- **Project:** Prevention of bacterial infections and control of antibiotic resistance in the food chain *http://uc-care.ku.dk/english/*
- My task in a project is related to screening, differentiation and quantification of different extended spectrum β-lactamase [ESBL] genes by Multiplex Real-time PCR (qPCR) occurring in poultry products and hatchery samples.

**Aug 2008 – Dec 2012**

**PhD Researcher**
**Department of Food Safety and Infection Biology Norwegian School of Veterinary Sciences**

- **PhD Project:** Antibiotic resistance in fish pathogenic and aquatic/sedimental environmental bacteria
- Principal objective of the study was to explore the genetic mechanisms involved in development of antibiotic resistance in pathogenic and aquatic environmental bacteria. .

**Jan 2002 – Dec 2004**

**Bahauddin Zakariya University Multan, Pakistan**
**Project:** Stress responses in fish

- Principal objective was to determine effects of starvation and Ph stress on the growth and bodu composition of a fish (*Labeo rohita*)

## TEACHING EXPERIENCE

**Jan 2019 to date -** **Associate Professor of Zoology**
Cholistan University of Veterinary and Animal Sciences Bahawalpur, Pakistan

**March 2016 – Dec 2018** **Associate Professor of Zoology**
Department of Higher Education, Government of Punjab, Pakistan

**Jan 2013 – July 2013** **Lecturer in Zoology**
Department of Higher Education, Government of Punjab, Pakistan

**Feb 1996 – July 2008** **Lecturer in Zoology**
Department of Higher Education, Government of Punjab, Pakistan

**Jan 1995 – Feb 1996** **Lecturer in Zoology**
Institute of Pure and Applied Biology, Bahauddin Zakariya University Multan, Pakistan

## EDUCATION AND TRAINING

**Aug 2008 – Dec 2012** **PhD Microbiology (Veterinary Medicine and Science)**
**Department of Food Safety and Infection Biology,** Norwegian School of Veterinary Sciences

**Jan 2002 – Dec 2004** **Master of Philosophy (M Phil) in Zoology**
- Bahauddin Zakariya University Multan, Pakistan

**Mar 1996 – Oct 1997** **Master of Education (M Ed) in Biology and Chemistry**
- Bahauddin Zakariya University Multan, Pakistan

**Sept 1991 – Jan 1994** **Master of Science (M Sc.) in Zoology**
- Bahauddin Zakariya University Multan, Pakistan

## TECHNICAL AND LABORATORY SKILLS

**Molecular Biology**
- Media plates and buffers preparations,
- Isolation, cultivation and identification of pathogenic and environmental bacteria, CFU determination.
- Antibiotic susceptibility testing by disk diffusion, MIC,
- Screening of resistance genes and plasmids by DNA-DNA hybridization and PCR,
- Cloning of genes in plasmids and chromosomes
- Conjugation experiments

**DNA techniques**

- R plasmid isolation, DNA/RNA isolation, cDNA synthesis, designing/validation of probes and primers
- PCR-amplification and agrose gel electrophoresis of DNA,
- MLSA, RFLP, MALDI-TOF
- RT-qPCR by Syber green and Taqman probe-based assay, absolute /relative quantification,

**Bioinformatics**

- Moderate knowledge of various bioinformatics tools like Artemis, NCBI BLAST, Seqin, MEGA and use of various softwares.

**Membership**

- American Society of Microbiology
- DARE COST ACTION (European Cooperation in Science and Technology)
- Norsk forening for Mikrobiologi/FEMS (Federation of European Microbiological Societies)

**Administrative Assignments**

- Acting Dean Faculty of Allied Health Sciences
- Chairman Department of Zoology
- Director Advanced Studies and Research
- Director Career Counseling & Internship
- Director Cholistan Institute of Biological Sciences
- Convener Campus Vigilante Committee
- Director Alumni
- Director Students Affairs (**DSA**)
- Focal Person of CUVAS for COVID Monitoring
- Member Advanced Studies & Research Board
- Convener Procurement/Purchase Receiving Committee
- Convener Sexual Harassment Monitoring Committee
- Convener Visiting Faculty Hiring
- Member/Secretary Admission Committee

**Awards/honours**

- HEC approved Supervisor
- Gold medal for the best performance in M. Sc. Zoology — B. Z. University Multan, Pakistan.
- Received grant for Overseas PhD from the Higher Education Commission Pakistan and the Norwegian School of Veterinary Sciences
- Serving as an examiner and reviewer for the evaluation of theses submitted for the award of postgraduate degrees (M.Phil. and Ph.D.) in Biological Sciences at various universities across Pakistan.
- Reviewer for various peer reviewed International and National Journals related to Life sciences including Chemosphere, Applied and Environmental Microbiology, Aquaculture, Journal of Toxicology and Environmental Health, Pakistan journal of Zoology, Journal of Animal and Plant Sciences, Pakistan Veterinary Journal, Academia Biology etc.

**Computer skills**

- Microsoft office
- Various bioinformatics tools related to gene sequencing and analysis

**Languages**

- English (Reading, Listening, Speaking, Writing).
- Urdu (Reading, Listening, Speaking, Writing).
- Hindi (Listening, Speaking).
- Norwegian (Basic).
- Danish (Basic).

## PUBLICATIONS

### Journal Papers

1. Bukhari, S. A. A., **Shah, S. Q. A**., Naeem, M., Naz, H., & Rafiq, M. (2026). Transforming Fish Health through Nanotechnology and Probiotics: Hematological Evidence from *Labeo rohita*. *Egyptian Journal of Veterinary Sciences*, 1-9.

2. Bukhari, S. A. A., **Shah, S. Q. A**., Naeem, M., Naz, H., & Rafiq, M. (2026). Impact of Nanoparticles and Probiotics on Elemental composition of *Labeo rohita*. *Egyptian Journal of Veterinary Sciences*, 1-12.

3. Rehman, N. U., **Shah, S. Q. A**., Naeem, M., Naz, H., & Rafiq, M. (2026). Proximate body composition, elemental concentration and enzymatic activity analysis of Catla catla exposed to the nanoparticle (CuO-NPs) and Vitamin C. *Plos one*, *21*(2), e0339412.

4. Raziq, K., Shah, S. Q. A., Shahzad, M. N., Ummara, U. E., Subhan, M., & Nazir, M. M. (2025). The gut–liver–virus axis in hepatitis B and C: microbiota, immunometabolism, and exosome-mediated therapeutic opportunities. *Naunyn-Schmiedeberg's Archives of Pharmacology*. https://doi.org/10.1007/s00210-025-04856-8

5. Iqbal, S., Ghaffar, A., Shah, S. Q. A., & Rauf, M. (2025). Fossil mammals from the new locality Gazlope, Sakhi Sarwar, Sulaiman Range, district Dera Ghazi Khan, South Punjab, Pakistan. *Historical Biology*, 1-43.

6. Muneer, A., Xu, C., Shah, S. Q. A., Aqib, A. I., Ali, M. M., Ghaffar, A., Ataya, F. S., & Li, K. (2025). Insights into structure, toxicity and antibacterial potential of tungsten carbon nanocomposites coupled with antibiotics. *Scientific Reports. https://doi.org/10.1038/s41598-025-23257-8*

7. Rasheed, S., Shah, S. Q. A., Naz, H., & Ahmad, A. S. (2025). Prevalence and antibiotic resistance profiles of quinolone-resistant bacteria from freshwater fish farms in Southern Punjab, Pakistan. *Pakistan Veterinary Journal. http://dx.doi.org/10.29261/pakvetj/2025.xxx*

8. Muneer, A., Shah, S. Q. A., Aqib, A. I., Ali, M. M., & Ghaffar, A. (2025). Infection dynamics of Salmonella enterica in Houbara bustard and resistance modulation through nanocomposites coupled antibiotics. *Pakistan Veterinary Journal. http://dx.doi.org/10.29261/pakvetj/2025.227*

9. Raziq, K., Shah, S. Q. A., Shaha, T., Tariq, M., Badshah, S., Riaz, U., Ibáñez-Arancibia, E., De los Ríos-Escalante, P. R., Jalees, M. M., & Badshah, F. (2025). Prevalence and risk factors of hepatitis B and C in Bahawalpur: A hospital-based study. *Brazilian Journal of Biology, 85*(e288357). *https://doi.org/10.1590/1519-6984.288357*

10. Liu, F., Huge, J., Hassan, M. A., Shah, S. Q. A., Liu, Y., Teri, G., Yila, G., Su, R., & Geri, L. (2025). Preparation and enzyme activity analysis of rCHiA-DP derived from the *Bacillus proteolyticus* IMH/B-1 strain isolated from *Dermacentor nuttalli*. *Scientific Reports.*

11. Shah, S. Q. A., Mahmood, K., Rashid, M. I., Na, H., Sohail, M. L., Naseer, O., Ali, S., Shabir, S., Hassan, M. A., Ayaz, M. M., Munawar, A., & Ahmad, A. S. (2024). Prevalence, morphological, and molecular characterization of Lernaea cyprinacea isolated from major carps of Southern Punjab, Pakistan. *Pakistan Veterinary Journal.*

12. Maqbool, S., Murtaza, M., Kumar, S., Aqib, A. I., Shah, S. Q. A., Muneer, A., & Nabeel, M. A. (2024). Prevalence, potential risks, and drug resistance in Staphylococcus aureus and Salmonella sp. infesting captive Houbara bustard. *Pakistan Journal of Zoology,* 1–9.

13. Khan, K., Sultan, R., Shah, S. Q. A., Farooq, Z., Rehman, N. U., Munir, H., & Khan, J. M. (2024). Head and neck cancer risk and human papillomavirus: Bradford Hill criteria-based evaluation. *Journal of Population Therapeutics and Clinical Pharmacology, 31*(1), 1536–1546.

14. Sumaira, F., Naz, H., Ahmed, T., Zulfiqar, I., Mehmood, K., Jabbar, M., Shah, S. Q. A., & Usman, M. (2024). Toxicity, histology, hepato-somatic index, and growth responses of cadmium-stressed Labeo rohita. *Punjab University Journal of Zoology, 39*(1), 79–85.

15. Naz, H., Abdullah, S., Ahmed, T., Abbas, K., Shah, S. Q. A., Rizwan, M., Latif, F., Qazi, A. A., & Hassan, M. A. (2024). Chlorpyrifos and endosulfan mixture induced DNA damage and nuclear anomalies in RBCs of Labeo rohita assessed through comet and micronucleus assay. *Punjab University Journal of Zoology, 39*(1), 7–13.

16. Ajmaal, R., Naz, H., Mehmood, K., Batool, M., Rehman, N. U., Ahmed, T., Shah, S. Q. A., Safdar, W., Imam, S., Ijaz, M. U., & Usman, M. (2024). Histo-morphometric indices and

catalase response in muscles, gills, and intestine of cadmium-stressed Hypophthalmichthys molitrix. *Pakistan Journal of Zoology,* 1–10.

17. Ahmad, T., Abbas, K., Naz, H., Abdullah, S., Shah, S. Q. A., Khalil, A., Ahmad, S., Amjad, H., & Ahmad, S. (2023). Microsatellite DNA markers revealed low to moderate levels of genetic diversity in domestic stocks of Catla catla. *Pakistan Journal of Zoology, 57*(1), 1–500.

18. Maryam, S., Naz, H., Ahmed, T., Omran, A., Alanazi, Y. F., Usman, M., Ijaz, M. U., Shah, S. Q. A., Qazi, A. A., Ali, B., Ali, H., Alasmari, A., & Heidary, K. (2023). Determination of histological and genotoxic parameters of Nile tilapia (Oreochromis niloticus) exposed to lead (Pb). *Cellular and Molecular Biology.* http://dx.doi.org/10.14715/cmb/2023.69.4.2

19. Naz, H., Abdullah, S., Ahmad, T., Abbas, K., Ijaz, M. U., Kumar, S., Hassan, M. A., & Shah, S. Q. A. (2022). Toxicity, oxidative stress, and genotoxicity: Lethal and sub-lethal effects of three different insecticide mixtures on Cirrhina mrigala. *Journal of Animal and Plant Sciences, 32*(1), 256–265.

20. Muneer, A., Kumar, S., Aqib, A. I., Khan, S. R., Shah, S. Q. A., Zaheer, I., & Ahmad, W. (2022). Evaluation of sodium alginate stabilized nanoparticles and antibiotics against drug-resistant Escherichia coli isolated from gut of Houbara bustard bird. *Oxidative Medicine and Cellular Longevity.* https://doi.org/10.1155/2022/7627759

21. Sattanathan, G., Tamizhazhagan, V., Raza, N., Shah, S. Q. A., Hussain, M. Z., & Kim, K. (2021). Effects of green alga Chaetomorpha aerea extract on non-specific immune responses and disease resistance against Edwardsiella tarda infection in Labeo rohita. *Applied Sciences, 11*(10), 4325. *https://doi.org/10.3390/app11104325*

22. Aziz, K., Abbas, K., Ahmed, T., Abdullah, S., Naz, H., Shah, S. Q. A., & Ahmad, S. (2020). Catalase activity in response to metals in freshwater fish Catla catla. *Asian Journal of Life Sciences, 3*(2), 66–72. *https://doi.org/10.34091/AJLS.3.2.6*

23. Cabello, F. C., Godfrey, H. P., Ivanova, L., Shah, S. Q. A., & Sørum, H. (2020). Freshwater salmon aquaculture in Chile and transferable antimicrobial resistance. *Environmental Microbiology, 22*(2), 559–563. *https://doi.org/10.1111/1462-2920.14891*

24. Hussain, M. Z., Qasim, M., Ali, A., Shah, S. Q. A., Aziz, S., & Mustafa, G. (2017). Breeding rate and mortality in Australian parrot (Melopsittacus undulatus) in captivity at Bahawalpur, Pakistan. *Pure and Applied Biology, 6*(2), 511–515. *https://doi.org/10.19045/bspab.2017.60051*

25. Shah, S. Q. A., Hussain, M. Z., Ali, M., & Salam, A. (2017). Effect of stress conditions on body composition parameters of farmed rohu (Labeo rohita). *Turkish Journal of Fisheries and Aquatic Sciences, 17,* 471–476. *https://doi.org/10.4194/1303-2712-v17_3_03*

26. Espinosa-Gongora, C., Shah, S. Q. A., Jessen, L. R., Bortolaia, V., Langebæk, R., Bjørnvad, C. R., & Guardabassi, L. (2015). Quantitative assessment of faecal shedding of β-lactam-resistant Escherichia coli and enterococci in dogs. *Veterinary Microbiology, 181*(3–4), 298–302. *https://doi.org/10.1016/j.vetmic.2015.10.004*

27. Hussain, M. Z., & Shah, S. Q. A. (2016). Effect of stress conditions on condition factor and growth of farmed rohu (Labeo rohita). *Journal of Entomology and Zoology Studies, 4*(5), 258–261.

28. Shah, S. Q. A., L'Abée-Lund, T. M., Tomova, A., Buschmann, A. H., Cabello, F. C., & Sørum, H. (2014). Antimicrobial resistance and antimicrobial resistance genes in marine bacteria from salmon aquaculture and non-aquaculture sites. *Environmental Microbiology, 16*(5), 1310–1320. *https://doi.org/10.1111/1462-2920.12421*

29. Shah, S. Q. A., & Sørum, H. (2014). Genetic localization of a TetR-like transcriptional regulator gene in Pseudomonas fluorescens isolated from farmed fish. *Journal of Applied Genetics, 55*(4), 541–544. *https://doi.org/10.1007/s13353-014-0221-1*

30. Cantas, L., Shah, S. Q. A., Cavaco, L. M., Manaia, C., Walsh, F., Popowska, M., Garelick, H., Børgmann, H., & Sørum, H. (2013). A brief multidisciplinary review on antimicrobial resistance in medicine and its linkage to the global environmental microbiota. *Frontiers in Microbiology, 4,* 96. *https://doi.org/10.3389/fmicb.2013.00096*

31. Shah, S. Q. A., Colquhoun, D. J., Nikuli, H. L., & Sørum, H. (2012). Prevalence of antibiotic resistance genes in the bacterial flora of integrated fish farming environments of Pakistan and Tanzania. *Environmental Science & Technology, 46,* 8672–8679. *https://doi.org/10.1021/es3018607*

32. Shah, S. Q. A., Nilsen, H., Bottolfsen, K., Colquhoun, D. J., & Sørum, H. (2012). DNA gyrase and topoisomerase IV mutations in quinolone-resistant Flavobacterium psychrophilum isolated from diseased salmonids in Norway. *Microbial Drug Resistance, 18*(2), 207–214. *https://doi.org/10.1089/mdr.2011.0142*

33. Shah, S. Q. A., Karatas, S., Nilsen, H., Steinum, T. M., Colquhoun, D. J., & Sørum, H. (2012). Characterization and expression of the gyrA gene from quinolone-resistant Yersinia ruckeri strains isolated from Atlantic salmon (Salmo salar L.). *Aquaculture, 350–353,* 37–41. *https://doi.org/10.1016/j.aquaculture.2012.04.022*

34. Gilbert, M., Virani, M. Z., Watson, R. T., Oaks, J. L., Benson, P. C., Khan, A. A., Ahmad, S., Chaudry, J., Arshad, M., Mahmood, S., & Shah, Q. A. (2002). Breeding and mortality of Oriental white-backed vulture (Gyps bengalensis) in Punjab Province, Pakistan. *Bird Conservation International, 12,* 311–326. *https://doi.org/10.1017/S0959270902002198*

35. Virani, M., Watson, R., Oaks, I., Gilbert, M., Benson, P., Khan, A. A., Baral, H. S., Shah, Q. A., & Girl, J. B. (2001). The Asian vulture crisis: A global perspective. In L. Bennun & M. Virani (Eds.), *Responding to the Asian Vulture Crisis: Planning for Vulture Monitoring and Conservation in Kenya* (pp. 1–10). National Museums of Kenya Ornithological Research Report No. 41.

36. Anjum, M., Kashif, S., Fatima, A., Dastgir, S., **Shah, S. Q. A.**, Aqib, A. I., ... & Fatima, M. Bacteriophage Applications in Poultry Production and Health Management. *Complementary and Alternative Medicine: Prebiotics and Probiotics*, 364.

37. Hassan, M. A., Sazmand, A., Ahmad, A. S., Hassan, M. S., Rashid, M., **Shah, S. Q. A.**, Ayaz, M. M. Parasitic zoonoses and camel. *Parasitic Diseases*. *https://doi.org/10.47278/book.vpph/2021.002*

**List of conferences attended and Poster and platform Presentations**

1. Shah, S Q A, (2025). Aquaculture & Fisheries - Sustainable Practices for Food Security. World Fisheries Day. November 21, 2025.
2. Shah, S Q A, (2025). Promotion of shrimp aquaculture and value chain development in Punjab. Directorate of Shrimp Aquaculture, Department of Fisheries Punjab. May, 17, 2025.
3. Shah, S.Q.A. (2024). Dengue Fever- causes and Prevention. Government Postgraduate College Civil Lines Multan, April 28, 2024.
4. Shah, S.Q.A. (2024). Building resilient Fisheries- Sustainable practices for food security. World Fisheries Day. Government Sadiq College Women University Bahawalpur. November 28, 2024
5. Shah, S.Q.A. (2023). *Lernaea cyprinacea*, anchor worm- a common fish parasite. University of Education, Lahore, March 7, 2023.
6. Shah, S.Q.A. (2023). Contribution of aquaculture in food security. World Fisheries Day. Government Sadiq College Women University Bahawalpur. November 29, 2023.
7. O-54/ICAZ-2022 Tanveer Ahmed, Khalid Abbas, Huma Naz, Sajid Abdullah, **Syed Qaswar Ali Shah**, Adnan Khalil, Sarfraz Ahmad, Hina Amjad and Shahbaz Ahmad. 2022. Microsatellite DNA markers revealed low to moderate level of genetic diversity in domestic stocks of *Catla catla*. 17th -18th October, 2022, 5th International Conference on Applied Zoology.
8. O-57/ICAZ-2022 Rida Ajmaal, Huma Naz, Tanveer Ahmed, Muhammad Usman, Muhammad Umar Ijaz, Adnan Ahmad Qazi, **Syed Qaswar Ali Shah**. 2022. Histomorphometric indices and catalase response in Cadmium (Cd) stressed Silver Carp (*Hypophthalmichthys molitrix*). 17th -18th October, 2022, 5th International Conference on Applied Zoology.
9. O-58/ICAZ-2022 Murtaza Manzoor, Huma Naz, Amjad Islam Aqib, Tanveer Ahmed, Muhammad Usman, Muhammad Umar Ijaz, **Syed Qaswar Ali Shah** and Shakeela Perveen. 2022. Assessment of ampicillin effects on behavior, enzyme activity and histology of *Labeo rohita*. 17th -18th October, 2022, 5th International Conference on Applied Zoology.
10. O-60/ICAZ-2022 Sana Kirn, Huma Naz, Tanveer Ahmed, Adnan Ahmad Qazi Zahid Manzoor and **Syed Qaswar Ali Shah**. 2022. Assessing the behavior, antioxidant enzymes and genotoxic response of *Ctenopharyngodon idella* subjected to chromium. 17th -18th October, 2022, 5th International Conference on Applied Zoology.

11. O-61/ICAZ-2022 Sadeema Maryam, Huma Naz, Tanveer Ahmed, Muhammad Usman, Sajid Abdullah, Muhammad Umar Ijaz, **Syed Qaswar Ali Shah** and Habib Ali. 2022. Determining the changes in the histological and genotoxic parameters of fish, *Oreochromis niloticus* exposed to lead (Pb). 17th -18th October, 2022, 5th International Conference on Applied Zoology.
12. O-62/ICAZ-2022 Muhammad Rizwan, Huma Naz, Tanveer Ahmed, Muhammad Usman, Muhammad Umar Ijaz, **Syed Qaswar Ali Shah** and Shakeela Perveen. 2022. Determining the acute toxicity of Pb+Cd metal mixture, catalase activity and histopathological changes in *Oreochromis niloticus*. 17th -18th October, 2022, 5th International Conference on Applied Zoology.
13. O-192/ICAZ-2022 Kainat Raziq, Muhammad Moazam Jalees, **Syed Qaswar Ali Shah**. Prevalence of Hepatitis B & C in District Bahawalpur. 17th -18th October, 2022, 5th International Conference on Applied Zoology.
14. Ayaz, M Z., Nazir M., Ahmad, T. **Shah S Q A.** "Incidence of *Buxtonella sulcata* in Nili-Ravi buffalo calves (*Bubalis bubalis indica*) in Pakistan".12th World Buffalo Congress, Istanbul, Turkey organized by International Buffalo Federation, 18 -20 September 2019.
15. Ayaz M. Z., Nazir M., Sheikh, A S., **Shah S Q A**. "Circulating RNA as therapeutic against parasites". 1st International Conference on Recent Updates in Biotechnology 2019 (ICRUB-2019) organized by Department of Biotechnology, Abdul Wali Khan University, Mardan, Pakistan,16 -18 October 2019.
16. **Shah S Q A**., Asma, Bibi, S. " Prevalence and antibiotic susceptibility profile of *Escherichia coli* O157:H7 in water and raw milk " Oral presentation (4th International Conference on "Food and Nutrition Security in changing climate" organized by Institute of Food Science and Nutrition BZ University Multan) 3 – 4 March 2019.
17. **Shah S Q A**. "Prevalence of antibiotic resistance in aquatic environmental bacteria of fish farming facilities in Pakistan" Oral presentation (11th International Conference jointly organized by Pakistan Society of Microbiology, American Society of Microbiology & Institute of Food Science and Nutrition BZ University Multan) 18 – 20 Dec. 2017.
18. Valeria Bortolaia, V, **Shah S Q A,** Jensen H U, Christensen J P, Christensen H, Guardabassi L. "Low prevalence of cephalosporin-resistant *Escherichia coli* in Danish broiler production, 2014-2015" Poster presentation ICOHAR (International Conference on One Health Antimicrobial Resistance) 2015. Copenhagen September 30 – October 2.

19. **Shah S Q A** and Sørum H —Use of prebiotics and probiotics: An alternative to antimicrobials in integrated fish farming‖. Oral and Poster presentation Keele University Manchester (Prebiotics and Probiotics in Medicine, Veterinary Sciences and Aquaculture September 2012).
20. **Shah S Q A,** Colquhoun D, Cabello F and Sørum H — Antimicrobial resistance in aquatic environmental bacteria associated with fish farms and pond sediments‖. Poster presentation SETAC (Society of Environmental Toxicology and Chemistry) World Congress Berlin 2012
21. **Shah S Q A** and Sørum H "Antibiotic resistance among aquatic sedimental bacteria of freshwater fish farming environments". Oral presentation ARAE (Antimicrobial Resistance in Animals and the Environment) 2011. Tours, France 27 June 2011.
22. **Shah S Q A** and Sørum H "Quinolone resistance in *Flavobacterium psychrophilum* isolated from diseased salmonids in Norway". Oral presentation — Communication Network in Marine Bacteria) Tromsø June 2011
23. **Shah S Q A**, Cantas L and Sørum H "Antibiotic resistance in aquatic environmental bacteria". Henning Zurich — 24 Nov. 2010. Poster presentation. COST ACTION (European Cooperation in Science and Technology).
24. **Shah S Q A** and Sørum H —*gyrA* mutations in quinolone resistant *Flavobacterium psychrophilum* from a disease outbreak in famed rainbow trout on the west coast of Norway. June 2009. Poster presentation in FEMS 2009 — 3rd congress of European Microbiologists Gothenberg, Sweden.