

Mohd Ikram Ansari

Microbiology (PhD)

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Work and Research Experience

2018 – Oct 2020 Research Associate III/ Research Scientist (IVRI)

Division of Biological Standardization, Indian Veterinary Research Institute, Izatnagar Bareilly, U.P. India

Project: Development of molecular platforms for point-of-care detection of major enteric viruses responsible for neonatal mortality.

Nov 2012 – 2017 Postdoctoral Researcher (KAUST)

Marine Microbial Ecology Lab, Red Sea Research Center King Abdullah University of Science and Technology since May 2015.

November 2012 – April 2015 Postdoctoral Researcher (KAUST)

Environmental Microbiology & Biotechnology Lab, Water Desalination and Reuse Center, King Abdullah University of Science and Technology.

Expertise: bacterial and cell analysis using **FACS flow-cytometry**, **Meta-transgenomics (next generation Illumina Sequencing, 454-Pyrosequencing/ Ion Torrent sequencing, qPCR)**, and other molecular techniques as well as microbiological methods. Assay development for antimicrobials, handling of pathogens, bacterial conjugation (Bi-parental and tri-parental mating using GFP labelled plasmid DNA of bacteria), **Mutagenicity testing using Ames Salmonella test**, **Genotoxicity by bacteriophage lambda**, Biofilm formation by bacteria, Biosorption, bacteria immobilization.

2007-2009 DAAD-DST Project Fellow (Germany)

Department of Environmental Microbiology, Technical University Berlin, Germany

Worked as a Research Fellow on DST-DAAD project entitled "Molecular screening, isolation, and characterization of conjugative plasmids from contaminated soils".

Education

Ph. D. (Microbiology) from Aligarh Muslim University, India/TU Berlin, Germany (June 2010)

M. Sc. Ag. (Microbiology) from Aligarh Muslim University, India (June 2004)

B. Sc. (Chemistry/Biology) from Aligarh Muslim University, India (June 2002)

Honors and Awards

- ICAR-NET qualified 2020
- Research Fellowship awarded by University Grants Commission (UGC), India, from January 2007-2009.
- Allana Research Fellowship (ARF) awarded by MAAS, India, from April 2006-2007.
- Nurul Hasan Merit Scholarship awarded by Nurul Hasan Foundation, United Kingdom, 2004.
- Washington DC Merit Scholarship awarded by AMU Alumni Association, Washington DC, USA, 2004.

Professional Memberships and Activities

American Society of Microbiology, USA

Association of Microbiologists, India

Indian Science Congress Association, India

Articles Published in Peer-Reviewed Journals

1. Arandia-Gorostidi, N., González, J.M., Huete-Stauffer, T., **Ansari, M.I.**, Morán, X.A.G. and Alonso-Sáez, L., 2020. Light supports cell-integrity and growth rates of taxonomically diverse coastal photoheterotrophs. *Environmental Microbiology*.
2. Malik, Y.S., Bhat, S., Kumar, O.R., Yadav, A.K., Sircar, S., **Ansari, M.I.**, Sarma, D.K., Rajkhowa, T.K., Ghosh, S. and Dhama, K., 2020. Classical Swine Fever Virus Biology, Clinicopathology, Diagnosis, Vaccines and a Meta-Analysis of Prevalence: A Review from the Indian Perspective. *Pathogens*, 9(6), p.500.
3. Brewin B, Morán XA, Raitos DE, Gittings J, Calleja ML, Viegas MS, **Ansari MI**, Al-Otaibi N, Huete-Stauffer TM, Hoteit I. Factors regulating the relationship between total and size-fractionated chlorophyll-a in coastal waters of the Red Sea. *Frontiers in microbiology*. 2019;10:1964. doi.org/10.3389/fmicb.2019.01964
4. Silva L, Calleja ML, Huete-Stauffer TM, Ivetic S, **Ansari MI**, Viegas M, Morán XA. Low abundances but high growth rates of coastal heterotrophic bacteria in the Red Sea. *Frontiers in microbiology*. 2019 Jan 7;9:3244. DOI: 10.3389/fmicb.2018.03244.
5. Calleja ML, **Ansari MI**, Røstad A, da Silva LR, Kaartvedt S, Irigoien X and Morán XAG (2018) The mesopelagic scattering layer: a hotspot for heterotrophic prokaryotes in the Red Sea twilight zone. *Front. Mar. Sci.* 5:259. doi: 10.3389/fmars.2018.00259.
6. **Ansari MI**, Harb M, Jones B, and Hong P-Y (2015). Molecular-based approaches to characterize coastal microbial community and their potential relation to the trophic state of Red Sea. *Scientific Reports*. Nature Publishing Group. 5, 9001; DOI: 10.1038/srep09001.
7. Al-Jassim N, **Ansari MI**, and Hong P-Y (2015). Removal of bacterial contaminants and antibiotic resistance genes by conventional wastewater treatment processes in Saudi Arabia: Is the treated wastewater safe to reuse for agricultural irrigation?" *Water Research*, 73C:277-290. doi: 10.1016/j.watres.2015.01.036.
8. Hong P-Y, Al-Jassim N, **Ansari MI**, and Mackie RI (2013). Environmental and Public Health Implications of Water Reuse: Antibiotics, Antibiotic Resistant Bacteria, and Antibiotic Resistance Genes. *Antibiotics*: 2(3):367-399.
9. **Ansari MI**, and Malik A (2010). Seasonal variation of different microorganisms with nickel and cadmium in the industrial wastewater and agricultural soils. *Environmental monitoring and assessment*. 167 (1-4): 151-163.
10. **Ansari MI**, and Malik A (2009). Genotoxicity of agricultural soils in the vicinity of industrial area. *Mutation Research/Genetic Toxicology and Environmental Mutagenesis*. 673(2): 124-132.
11. **Ansari MI**, and Malik A (2009). Genotoxicity of wastewaters used for irrigation of food crops. *Environmental Toxicology*. 24(2), 103-115.
12. **Ansari MI**, Grohmann E, and Malik A (2008). Conjugative plasmids in multi-resistant bacterial isolates from Indian soil. *Journal of Applied Microbiology*. 104(6):1774-1781.
13. **Ansari MI**, and Malik A (2007). Biosorption of nickel and cadmium by metal resistant bacterial isolates from agricultural soil irrigated with industrial wastewater. *Bioresource Technology*. 98(16): 3149-3153.
14. Iqbal A, **Ansari MI**, and Aqil F (2006). Biosorption of Ni, Cr and Cd by metal tolerant *Aspergillus niger* and *Penicillium sp.* using single and multi-metal solution. *Indian Journal of Experimental Biology* 44:73-76.

Books/ Book Chapters

1. **Ansari MI**, and Malik A (2010). Genotoxicity assessment and microbiological characteristics of agricultural soil. LAP Lambert Academic Publishing AG & Co. KG Dudweiler Landstraße 99, 66123 Saarbrücken, Germany.
2. **Ansari MI**, Masood F, and Malik A (2011). Bacterial biosorption: A technique for remediation of heavy metals. In: Ahmad I, (ed.) *Microbes and Microbial Technology: Agricultural and Environmental Applications*, DOI 10.1007/978-1-4419-7931-5_13, Springer Science, LLC 2011 USA.
3. Ahmad I, Imran M, **Ansari MI**, and Malik A (2011). Metal tolerance and biosorption potential of soil fungi from aqueous solutions: Scope for a Green and Clean Technology. In: Ahmad I, (ed.) *Microbes and Microbial Technology: Agricultural and Environmental Applications*, DOI 10.1007/978-1-4419-7931-5_12, Springer Science, LLC 2011 USA.
4. **Ansari MI**, Schiwon K, Malik A, and Grohmann E (2011). Biofilm formation by environmental bacteria. In: A. Malik, E. Grohmann (eds.), *Environmental Protection Strategies for Sustainable Development*, Strategies for Sustainability, DOI 10.1007/978-94-007-1591-2_11, Springer Science+Business Media, LLC 2011
5. Malik A, Rahman M, **Ansari MI**, Masood F, and Grohmann E (2011). Environmental Protection Strategies: An overview. In: A. Malik, E. Grohmann (eds.), *Environmental Protection Strategies for Sustainable Development*, Strategies for Sustainability, DOI 10.1007/978-94-007-1591-2_1, Springer Science+Business Media, LLC 2011
6. Masood F, **Ansari MI**, and Malik A (2012). Role of rhizobacteria in antibiosis. In: *Biocontrol: Management, Processes and Challenges* (2012) Brar S. K. (Ed) Nova New York

Abstracts and Presentations

1. **Ansari MI**, Sircar S, Bhat S, VinodhKumar OR, Dhama K, Verma A, and Malik YS. “Emergence and genetic diversity of bovine astroviruses, India” VIROCON 2020, International conference on Evolution of viruses and viral diseases, New Delhi, February 18-20, 2020.
2. Malik YS, **Ansari MI**, Sircar S, M Karikalan, S. Ilayaraja, AK Sharma, S Bhat¹, K Dhama¹, and RK Singh “Molecular analysis of the VP6, VP7, and NSP4 genes of rotavirus strains recovered from rescued sloth bears, India” IAVMICON 2020, Indian Association of Veterinary Microbiologist and Immunologists and specialists of infectious diseases, Bareilly, February 6-7, 2020.
3. **Ansari MI**, Calleja ML, Viegas M, da Silva L, Morán XAG “Red Sea coastal bacterioplankton: High-frequency variability and phylogenetic community composition in response to environmental drivers” ASM microbe 2017, New Orleans, USA, 1-5 June 2017.
4. **Ansari MI**, Calleja ML, Viegas M, Sabbagh E, da Silva L, Ivetic S, Morán XAG. “High-frequency variability of bacterioplankton in a shallow Red Sea environment” International Conference on the Marine Environment of the Red Sea, Thuwal, Saudi Arabia, 14-16 November 2016.
5. da Silva L, Calleja ML, Ivetic S, **Ansari MI**, Viegas M, Morán XAG “Temporal variability of Red Sea coastal bacterioplankton growth rates and carrying capacities” International Conference on the Marine Environment of the Red Sea, Thuwal, Saudi Arabia, 14-16 November 2016.
6. Morán XAG, **Ansari MI**, Viegas M, da Silva L, Sabbagh E, Calleja ML “Stocks and dynamics of heterotrophic prokaryotes in the Red Sea: less and more than expected” International Conference on the Marine Environment of the Red Sea, Thuwal, Saudi Arabia, 14-16 November 2016.

7. Calleja ML, **Ansari MI**, da Silva L, Røstad A, Kaartvedt S, Irigoien X, Morán XAG “Mesopelagic fish accumulation layer: a hotspot for heterotrophic prokaryotes in a warm ocean?” Gordon Research Conference in Ocean Biogeochemistry, The Chinese University of Hong Kong in Hong Kong, China, 12-17 June 2016.
8. da Silva L, Calleja ML, Ivetic S, **Ansari MI**, Viegas M, Morán XAG “Temporal variability of Red Sea coastal bacterioplankton growth rates and carrying capacities.” Ramon Margalef Summer Colloquia - “Microbes in a changing world: diversity and biogeochemistry”, Barcelona, Spain 10 -15 July 2016.
9. **Ansari MI**, Harb M, Jones B, and Hong P-Y “Effect of anthropogenic contamination on marine water microbial community of Red Sea” 15th ISME (the international society for microbial ecology held in Seoul, South Korea, from 24-29 August 2014.
10. **Ansari MI**, Al-Jassim N, and Hong P-Y “Monitoring antibiotic resistant bacteria in wastewater and their potential implication in water reuse” 17th International Symposium on Health-Related Water Microbiology held in Florianópolis, Santa Catarina, Brazil, from 15 - 20 September 2013.
11. **Ansari MI**, Masood F, Schiwon K, Grohmann E, and Malik A “PCR based detection of antibiotic resistance genes (ARGs) in bacteria from agricultural soils: A threat to humans” International conference of Integrative Medicine & 1st SAARC Conference on Unani Medicine organized by Faculty of Unani Medicine, Aligarh Muslim University, Aligarh, February 2-4, 2011.
12. **Ansari MI**, Schiwon K, Grohmann E, and Malik A “Antibiotic resistance genes in bacterial isolates from wastewater irrigated agricultural soils” 50th Annual Conference of Association of Microbiologists of India jointly organized by NCL and Dept. of Microbiology, Pune University, between December 15-18, 2009.
13. **Ansari MI**, Masood F, Anjum R, Schiwon K, Grohmann E, and Malik A “Detection of biofilm formation in soil bacteria by lectin binding assay” 50th Annual Conference of Association of Microbiologists of India jointly organized by NCL and Dept. of Microbiology, Pune University, between December 15-18, 2009.
14. **Ansari MI**, Anjum R, Masood F, Grohmann E, and Malik A. “PCR-Based Detection of Conjugative Plasmid in Antibiotic and Metal Resistant Bacterial Isolates From Contaminated Soils”. AMI 49th Annual conference, International Symposium on Microbial Biotechnology: Diversity, Genomics, and Metagenomics, New Delhi, India, November 18-20, 2008.
15. **Ansari MI**, and Malik A “Mutagenic properties of wastewater used for irrigation in the vicinity of industrial area.” International Symposium on Genomic instability and cancer, organized jointly by the Department of Biotechnology, University of Kashmir, Department of Medical Oncology, SKIMS, and The Ohio State University, USA, held at Srinagar, Kashmir, India from July 22-26, 2007.
16. **Ansari MI**, and Malik A “Effect of wastewater on the emergence of resistance traits in bacteria isolated from agricultural soil.” 46th Annual Conference of Association of Microbiologists of India organized by Dept. of Microbiology, O.U., Hyderabad, December 8-10, 2005.
17. **Ansari MI**, Faheem S, Ashraf S, and Malik A “Multiple metal resistance in bacteria isolated from the agricultural soil irrigated with wastewater.” 45th Annual Conference of Association of Microbiologists of India organized by Dairy Microbiology Division, NDRI Karnal, 23-25 November 2004.
18. **Ansari MI**, and Ahmad I “Resistance and bioadsorption of Ni, Cr and Cd by certain filamentous fungi isolated from wastewater treated agricultural soil.” 45th Annual

Conference of Association of Microbiologist of India organized by Dairy Microbiology Division, NDRI Karnal, 23-25 November 2004.