
ASAD BASHIR AWAN



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ADDRESS

P-59 LASANI TOWN,
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MARRIED

CURRENT POSITION

RESEARCH ASSOCIATE
AKHUWAT-FIRST
(FAISALABAD INSTITUTE OF
RESEARCH SCIENCE &
TECHNOLOGY)
FAISALABAD

MOTIVATION

An enthusiastic, adaptive and fast learning person having multi-disciplinary qualifications in Pharmacy, Microbiology and Biotechnology with broad Interest in Medical Microbiology

EDUCATION

PhD Scholar / Since November 24th, 2014

National Institute for Biotechnology & Genetic Engineering,
Faisalabad, Pakistan

Sponsored by **Indigenous scholarship program** of

Higher Education Commission of Pakistan

CGPA: 3.85 / 4 | Current semester: 10th PhD

Research Project: Characterization of antimicrobial resistance in clinical isolates of *Pseudomonas aeruginosa*:

Mechanisms of Antimicrobial resistance in local isolates against: carbapenems, cephalosporins, fluoroquinolones & aminoglycosides through phenotypic and molecular techniques. Studying biofilm formation and cytotoxicity potentials. Real time expressional studies of efflux pumps. Molecular typing using PFGE to identify outbreaks.

Thesis & Manuscript writing in process.

Research Work Completed, Course work completed, Synopsis approved, Comprehensive Qualification Exam Passed and part of my research work published

Thesis write up is in progress.

M. Phil Microbiology/ 2012 to 2014

Institute of Microbiology, University of Agriculture, Faisalabad

Sponsored by **Indigenous scholarship program** of

Higher Education Commission of Pakistan

CGPA: 3.67 / 4 (Achieved with Distinction)

Research Project: Study of Antimicrobial resistance patterns & Extended Spectrum β - Lactamase production of uropathogens isolated from pregnant women in District Faisalabad

Research Keywords: Clinical Bacteriology, Prevalence study, Antimicrobial susceptibility testing, Multidrug resistant *E. coli*, Urinary tract infections, UTI in pregnancy, ESBL production.



Pharm. D / 2007 to 2012

Government College University, Faisalabad

CGPA: 3.27 / 4

Important Courses: Clinical Pharmacy, Microbiology, Medicinal Chemistry, Hospital Pharmacy, Anatomy, Physiology, Biochemistry, Pharmacology, Biopharmaceutics, Organic & Analytical Chemistry. Developed my interest in exploration of resistance mechanisms of human pathogens and their treatments during study visits in local hospitals.

EXPERIENCE AND SKILLS

RESEARCH TRAINING IN UNIVERSITY OF HONG KONG, HONG KONG

Feb, 2018 to August 2018

Sponsored by **International Research Support Initiative Program**

of Higher Education Commission of Pakistan

Supervisor: Dr. Aixin Yan

Associate Professor

School of Biological Sciences

Techniques employed: RNA extraction, cDNA preparation & Bacterial Expressional Studies through real time reverse transcriptase polymerase chain reactions.

RESEARCH TRAINING IN BRANDUNBURG UNIVERSITY OF TECHNOLOGY, GERMANY

September, 2016 to December, 2016

Institute for Biotechnology, Brandenburg University of Technology, Campus Senftenberg, Germany

Sponsored by **Ministry of Education and Research, Germany**

Supervisor: Prof. Dr. Peter Schierack

Techniques employed: Pulse field gel electrophoresis, Biofilm assay via Video scan method and crystal violet method, Bacterial adhesion assays, Cell culture techniques.

Second national training course on

“BACTERIAL IDENTIFICATION & METAGENOMICS”

4-8 March, 2013

National Institute for Biotechnology and Genetic Engineering, Faisalabad

Techniques employed: DNA Extraction, Primers design, Bacterial cells cloning, Competent cell preparation, Gel electrophoresis, Differentiation of bacterial strains by PCR, Identification of bacteria by 16s RNA technique, PCR amplification.



HOSPITAL PHARMACIST INTERSHIP

March, 2011 to April, 2011

District Head Quarters Hospital, Faisalabad (600 Beds)

Skills Learned: Inventory control in main store, Expired medicines identification, Inventory control central pharmacy and dispensaries, Ward rounds (checking storage of medications and their rational use), Prescription evaluation, Reporting ADRS and Drug interactions, Patient counseling. Found my interest in studying antimicrobial resistance mechanisms and their optimized treatment plans.

TECHNICAL SKILLS

Cellular biology:

Cell culture handling: 8E11 (chicken), Lovo, T24, HEP-G2 and HEK-293FT cell lines

Microbiology:

Samples collection from infected areas, bacterial culture in liquid and solid medium, Disk diffusion assays, use of differential and selective medium, identification of bacteria based on biochemical tests, biofilm assays, worked in Biosafety level 2 laboratory.

Molecular biology:

DNA Extraction, Primers design, Bacterial cells Cloning, Competent cell preparation, Gel electrophoresis, Differentiation of bacterial strains by PCR, Identification of bacteria by 16s RNA technique, PCR amplification of genes. Pulse field gel electrophoresis

Pharmacy:

Knowledge of the interaction between drug molecules and targets (such as receptors, enzymes and transport molecules), Concentration/dilution calculations, dose calculations,

Knowledge of human disease; current therapies & standard drugs; genetics of disease. Anticipate (and hence minimise), detect, manage, report and analyse adverse drug reactions (ADRs).

Well versed in consulting the resources to solve new queries: USP/BP/EU Pharmacopeia, National and local formularies, Remington Science and practice of Pharmacy, Drug-Drug Interactions, Drug-Food Interactions

IT & COMMUNICATION SKILLS

IT: Knowledge of standard office software, Corel Draw, Basic Statistics, Basic Biolinux programming

Strong communication/presentation skills: Presented data to both small and large groups, at national and international level. Adapting style and content to the level of knowledge and understanding of others.

Languages: Urdu (mother tongue), English (fluent)

Efficient, organized, reliable, fast-learner, highly motivated, get the job done.

PUBLICATIONS

- 1) **Asad Bashir Awan**, Juliane Schiebel, Alexander Böhm, Jörg Nitschke, Yasra Sarwar, Peter Schierack, Aamir Ali. Association of biofilm formation and cytotoxic potential with multidrug resistance in clinical isolates of *Pseudomonas aeruginosa*. EXCLI. 2019;18:79-90
 - 2) Muhammad Wajid, **Asad Bashir Awan**, Muhammad Kashif Saleemi, Jörg Weinreich, Peter Schierack, Yasra Sarwar, and Aamir Ali 2018. Multiple Drug Resistance and Virulence Profiling of *Salmonella enterica* Serovars Typhimurium and Enteritidis from Poultry Farms of Faisalabad, Pakistan. Microbial Drug Resistance. 16 Aug <https://doi.org/10.1089/mdr.2018.0121>
 - 3) **Asad Bashir Awan**, Iftikhar Hussain, Mashkooor Mohsin and Muhammad Khalid Mansoor. Study of antimicrobial resistance patterns & Extended Spectrum β -Lactamase production of uropathogens isolated from pregnant women in district Faisalabad. International Conference: Emerging Trends in Life Sciences for sustainable development. 2014: p34. (Oral Talk and Abstract Published)
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REFERENCES

Dr. Aamir Ali

PhD Supervisor

Senior Scientist, Health Biotechnology Division
National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad, PAKISTAN

Email: myaamirali@yahoo.com

Dr. Yasra Javaid

PhD co-supervisor

Senior Scientist, Health Biotechnology Division
National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad, PAKISTAN

Email: yasrasarwar@yahoo.com

Prof. Dr. habil. Peter Schierack

(Supervisor: 3 months training at BTU-CS, Germany)

Professur für Multiparameterdiagnostik
Institut für Biotechnologie, Brandenburgische Technische Universität Cottbus – Senftenberg, Campus
Senftenberg

Email: peter.schierack@b-tu.de

Dr. Aixin Yan

(Supervisor: 6 months Research Training under HEC IRSIP Program)

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Hong Kong Pokfulam Road, Hong Kong

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