

MARYUM FAKHAR

PERSONAL INFORMATION:

Name: Maryum Fakhar	Father's Name: Muhammad Fakhar ul Haq Noori
Nationality: Pakistani	Domicile: Lahore
NIC No.: 35202-5720995-4	Marital status: Single
Religion: Islam	Date of Birth: 11-01-1991

CURRENT POSITION:

Working as a Research officer at the Department of Microbiology & Molecular Genetics, University of the Punjab, Lahore.

Also a registered PhD student (session 2015-19) in the aforementioned institute.

CONTACT INFORMATION:

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Address: House no. 10, B- block, street b-10, residential colony, university of the Punjab, Lahore

PROFESSIONAL EXPERIENCE:

I am working as a research officer (BPS- 18) at the department of Microbiology and Molecular Genetics, since November, 2016. I am teaching chromosomal abnormalities and genetic counseling at post graduate level. I am also the member of educational societies at the department i.e. MBERS and Biosafety and Bioresource committee. Besides, I am also the member of student affairs committee. Furthermore, I am involved in arranging conferences, seminars, workshops and events in the department as a member of organizing committee.

EDUCATIONAL INFORMATION:

Present *PhD research*

2016 *Completed Course work of PhD In Microbiology & Molecular Genetics* (3.88 CGPA)

Department of Microbiology & Molecular Genetics, University of the Punjab, Lahore (**stood 1st in the University**)

2015 *M.S In Microbiology & Molecular Genetics* (3.97 CGPA)

Department of Microbiology & Molecular Genetics, University of the Punjab, Lahore (**stood 1st in the University**)

2013 *B.S (Hons.) In Microbiology & Molecular Genetics* (3.69 CGPA)

Department of Microbiology & Molecular Genetics, University of the Punjab, Lahore (**stood 2nd in the University**)

2009 *F.Sc. Pre-medical* (970/1100--88.2%)

Biology, Physics, Chemistry.

Punjab College of Science, Lahore. BISE- LHR

2007 *Matriculation* (772/850--90.8%)

Mathematics, Physics, Chemistry, Biology.

Divisional Public School, model town, Lahore. BISE- LHR

HONORS AND ACHIEVEMENTS:

- First position in PhD course work in Microbiology and Molecular Genetics, Session 2015-19 at University of the Punjab, Lahore.
- First position in M.S. Microbiology and Molecular Genetics, Session 2013-15 at University of the Punjab, Lahore.
- Second position in B.S. (Hons.) Microbiology and Molecular Genetics, Session 2009-13 at University of the Punjab, Lahore.
- Gold medal for getting above 90% marks in matriculation.
- **Scholarships:**
 - Merit scholarship in FSc for both the years
 - Merit scholarship in BS (Hons.) for 4 years

- Merit scholarship in MS (1st year)
- DPCC scholarship in MS (2nd year)
- **Extracurricular activities:**
 - Participated and won carom, chess, badminton and cricket
 - Comparing at various events in the department

RESEARCH WORK:

PhD synopsis: In silico and In vitro activity of natural and synthetic bioactive compounds against metallo β - lactamase producing *Pseudomonas*

MS thesis: Effect of crude extracts of *Acacia* & *Eucalyptus* on biofilm forming abilities of bacteria from Peptic ulcer.

BS thesis: Effect of Nickel on adherence, hydrophobicity, aggregation and biofilm formation of salt tolerant bacterial strains

Other projects:

- Mutational analysis of b-lactam resistant bacterial strains (2013-2014)
- Synthesis and antimicrobial activities of silver nanoparticles. (2013-2014)
- Synthesis and antimicrobial activities of selenium nanoparticles. (2013-2014)
- Isolation and Screening of antibiotics producing *Actinomycetes* and bacterial strains from different soil samples. (2012-13)
- Isolation and characterization of probiotics from dairy products. (2012-13)

CONFERENCES, SEMINARS AND WORKSHOPS:

Conferences (organized):

- **Symposium** on emerging issues of multidrug resistance: A threat to the Globe. University of the Punjab, *Lahore, Pakistan*. October 2014
- **Workshop** on biosafety and risk assessment organized by biosafety and bio-resource committee, University of the Punjab, Lahore, Pakistan. April, 2014
- 10th Biennial international **conference** of Pakistan Society for Microbiology (PSM) held at University of the Punjab, Lahore, Pakistan. March, 2015

Conferences (Presented):

- Effect of Nickel on adherence, hydrophobicity, aggregation and biofilm formation of salt tolerant bacterial strains. Poster presented at **Bio-Physicochemical Basis for Technopreneurship**. University of the Punjab, *Lahore, Pakistan*. April 2013
- *Helicobacter pylori*: A RISING VILLAIN. Poster presented at the **Symposium on emerging issues of multidrug resistance: A threat to the Globe**. Department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. October 2014
- Assessment of antimicrobial potential of naturally occurring compounds for the eradication of microbiota associated with peptic ulcer disease. Poster presented at the **10th biennial international conference of Pakistan Society for Microbiology**, organized by department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. March 2015
- Effect of crude extracts of *Acacia* and *Eucalyptus* on bacteria isolated from PUD patients. Poster presented at the **Annual scientific symposium on infectious diseases**. MBBS medical college, *AJK*. April 2016.

Conferences (attended):

- **4th in-service faculty training program**, organized by Department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. November, 2016.
- Hands on training **workshop** on transaminases and associated factors organized by Department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. May, 2016.
- Hands on training **workshop** on blood: connect us all, organized by Department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. April, 2016
- Annual scientific **symposium** on infectious diseases. MBBS medical college, *AJK*. April 2016.
- Hands on training **workshop** on 2D and 3D cell culture. Tumor metabolism group, department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. February, 2016.
- Annual scientific **symposium** on infectious diseases. MBBS medical college, *AJK*. April 2015.

- **10th biennial international conference** of Pakistan Society for Microbiology, organized by department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. March 2015
- **1st joint PAP/RCPATH/AMP conference** on molecular pathology. Lahore, Pakistan. November 2014.
- **Symposium** on emerging issues of multidrug resistance: A threat to the Globe. Department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. October 2014
- **Seminar** on recent trends in molecular therapeutics organized by Department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. August, 2014
- **Workshop** on biosafety and risk assessment organized by biosafety and bio-resource committee, University of the Punjab, Lahore, Pakistan. April, 2014
- **Seminar** on Scientific writing: guidelines, issues and solutions, Department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. March, 2014
- One day **hands-on training** on ENDNOTE, arranged by Department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. February 2014
- 37th Annual **Conference** of Pakistan Association of Pathologists/ 2nd Joint Conference of Societies of Pathology. Dec 2013. *Lahore, Pakistan*.
- **Hands on training** workshop on basic biosafety measures in research, Department of microbiology and molecular genetics, University of the Punjab, *Lahore, Pakistan*. *September, 2013*.
- Biophysicochemical basis for technopreneurship held at the University of the Punjab, Lahore. April, 2013

PROFESSIONAL MEMBERSHIPS:

- American Society for Microbiology (ASM)
- Pakistan Society for Microbiology (PSM)
- Biosafety and bioresource committee
- Molecular biology education and research society (MBERS)
- Student affairs committee

LABORATORY TECHNIQUES EXPERIENCE:

- Basic Microbiological & molecular techniques
- Handling, isolation and identification of bacteria from different clinical as well as environmental specimens
- Antimicrobial susceptibility assessments (Antibacterial, antifungal, anti-algal and cytotoxicity assay)
- Chromatography (Thin layer chromatography, High performance liquid chromatography, Silica gel column chromatography)
- DNA and Plasmid extraction (Manual and Kit method)
- Agarose gel electrophoretic analysis of DNA
- Polymerase chain reaction (PCR) amplifications
- Protein purification techniques: Polyacrylamide gel electrophoresis (PAGE), Mass spectrometry, 2D-gel electrophoresis
- Lyophilization (Freeze-drying)
- Basic Immunological techniques: Enzyme linked immunosorbent assay (ELISA)
- Fourier Transform Infrared Spectroscopy (FTIR)
- Fluorescent microscopy
- Western blot
- Tissue culture techniques
- 2D and 3D cell culture techniques
- Blood culture techniques
- DNA fingerprinting, RAPD, RFLP

TECHNICAL SKILLS:

Applications Software	Primer Fox, NEB-CUTTER, NCBI-BLAST, RCSB-PDB, Image J, END-Note.
Embedded Devices	Bio-rad PCR, Sigma-Centrifuge, GC-MS, HPLC, Micro-titer Plate reader, Soni-Prep 150, FTIR, fluorescent microscope
Documentation Tools	Microsoft Office (Word, Excel, PowerPoint), SPSS, Prism, END-Note.
Computer skills	Microsoft Windows.
Organisational skills	Writing and Presentation Skills.

LANGUAGES:

- English
- Spanish
- Urdu
- Punjabi

RESEARCH INTERESTS:

Biofilm, Cancer genetics, Immunology

EXTRA-CURRICULAR ACTIVITIES:

Painting, Carom, Cricket, Badminton, Music, cooking.