

# Misbah Hussain

Cell: +92-334-4019397

E-mail: [misbahussain@yahoo.com](mailto:misbahussain@yahoo.com)

Address: 15-A, Riverview Housing Society, Near Kachi Kothi stop, 4-km Raiwind Road, Lahore

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## **Current Status** PhD student (Thesis Submitted)

(Enrolled Nov, 2014)

*PhD title:* Pharmacogenetic Analysis of Cardiovascular disease patients by targeting Renin Angiotensin Aldosterone System (RAAS)

*Institute:* National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad affiliated with Pakistan Institute of Engineering and Applied Sciences (PIEAS), Islamabad

## **Work Experience**

### **Visiting Lecturer (Biotechnology)**

(Sep, 2019- Current)

Department of Biotechnology, University of Sargodha, Sargodha

### **Subject Specialist (Science)/ Teacher**

(Nov, 2013-Sep, 2014)

Adabistan-e-Soophia School and College, Lahore, Pakistan

## **Education**

### **MPhil Molecular Biology and Biotechnology (2013)**

University of Veterinary and Animal Sciences, Lahore, Pakistan  
CGPA 3.94/4.00 (**Top Scorer**)

### **B.S (Hons.) Biotechnology and Bioinformatics (2011)**

University of Veterinary and Animal Sciences, Lahore, Pakistan  
CGPA 3.87/4.00 (**Gold medalist**)

### **Bachelors in Education (B.Ed) (2012)**

1st Div and 66% marks . AIU, Islamabad, Pakistan

### **Intermediate (Pre-Medical) (2007)**

Grade A, 75% marks. BISE, Lahore, Pakistan

### **Matriculation (Science group) (2005)**

Grade A, 1st Division with 72% marks. BISE, Multan, Pakistan

## **Foreign Visits**

**6 month research fellowship for University of Glasgow, UK** under International Research Support Initiative Program (IRSIP), funded by Higher Education Commission (HEC), Pakistan  
(Feb, 2018- July, 2018)

## **MPhil** **Research Project**

### **Mutational Analysis of *parkin* gene and its association with Parkinson's disease**

I completed this project during my MPhil studies. In this project, I did mutational analysis of *parkin* gene and found one mutation in region encoding ubiquitin domain. In-silico analysis of this mutation confirmed its association with Parkinson's disease

## **Distinctions/** **Awards/** **Scholarships**

### **Academic**

Won "International Research Support Initiative Program (IRSIP)" for 6 months by Higher Education Commission for University of Glasgow, UK.

Won 2<sup>nd</sup> prize for paper presentation in 46<sup>th</sup> Annual Conference of Pakistan Cardiac Society (CardioCon2016)

Awarded Indigenous PhD Scholarship by Higher Education Commission, Pakistan for the year 2015-2018

Gold Medalist of BS (hons.) Biotechnology and Bioinformatics

Top Scorer of MPhil Molecular Biology and Biotechnology

Received University Merit Scholarship from 2007-2011 during studies of BS (hons) from University of Veterinary and Animal Sciences, Lahore.

### **Sports**

Scored 3<sup>rd</sup> position in FSc

3<sup>rd</sup> position in Intersersity Female Hiking Championship organized by Higher Education Commission, Pakistan

Female Best Athlete of University of Veterinary and Animal Sciences, Lahore

Winner of Rope Skipping at National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad

## **Publications**

**Hussain M**, Bilal A, Awan FR. **2019**. Pharmacogenetic effects of ACE, AGT, CYP11B1, CYP11B2 and eNOS gene. Journal of Pakistan Medical Association

**Hussain M** Abbas S, Bilal A, Aslam MN, Awan FR. **2019**. Association of ACE (I/D) polymorphism with risk of diabetes in cardiovascular disease patients. Experimental and clinical endocrinology & diabetes

**Hussain M**, Khan HN, Awan FR. **2019**. Development of low-cost tetra ARMS-PCR assay for AGT and CYP11B1 gene polymorphism. Molecular Biology reports

Awan FR and **Hussain M**. **2018**. An overview of renin angiotensin aldosterone system genetics and cardiovascular diseases. Pakistan Journal of Cardiovascular and Thoracic surgery.

**Hussain M** and Awan FR. **2017**. Hypertension controlling angiotensin peptides in the pathobiology of cardiovascular disease. Clinical and Experimental Hypertension

**Hussain M**, Awan FR, Gujjar A, Hafeez S, Islam M. **2017**. A case control association study of ACE gene polymorphism (I/D) with Hypertension in Punjabi population from Faisalabad, Pakistan. Clinical and Experimental Hypertension

Niaz S, Babar ME, Hussain T, Nadeem A, **Hussain M**, Mehboob R, Ahmad FJ. **2016**. Mutation analysis of RING1 domain of Parkin in early onset of Parkinson's disease in Pakistani patients-a pilot study. Punjab Univ. J. Zool., 31 (2): 249-254.

**Hussain M**, Babar ME, Hussain T, Nadeem A, Niaz S, Mehboob R. **2014**. Novel R42C mutation identified in Early Onset of Parkinson's disease in Pakistani Patients. HealthMED, 8(9): 1063-1068.

**Hussain M**, Awan FR. **2018**. Linking up Hypertension and Dyslipidemia in the pathobiology of Cardiovascular disease. Post graduate Medical Journal

## **Skills**

**Experimental:** blood sampling, Human vascular cell culture, animal handling, PCR, western blotting, confocal microscopy, immunoprecipitation, myography, bioinformatics

**Personal:** leadership, management, problem-solving, verbal and written communication, multitasking

## **Trainings**

### **International Training Workshop on Basic Techniques in Mesenchymal Ste Cell Culture and Toxicity Assay**

(26<sup>th</sup> Feb, 2019-28<sup>th</sup> Feb, 2019)

Department of Anatomy, University of Agriculture, Faisalabad.

### **One week Training of Lab Equipment Maintenance and Safety**

(24<sup>th</sup> Sep, 2018- 28<sup>th</sup> Sep, 2018)

National Institute for Biotechnology and Genetic Engineering, Faisalabad

## **Internships**

### **Two Month internship at Department of Microbiology and Molecular Genetics (MMG) (April-May, 2011)**

University of the Punjab, Lahore, Pakistan

### **One Month internship at Chughtais Lahore Lab, Pakistan**

(Dec-Jan, 2012), Chughtais Lahore Lab, Pakistan

## **Conferences**

### **attended**

#### **(Oral/Poster Presented)**

### **7<sup>th</sup> Diabetes and Endocrine Conference** (February 8-10, 2019)

Organized by Faisalabad Medical University/Allied Hospital, Faisalabad

Talk topic: Pharmacogenetic study of ACE, AGT, CYP11B1, CYP11B2 and eNOS gene variants in hypertensive patients from Faisalabad, Pakistan

### **6<sup>th</sup> International Conference on Endocrinology and Diabetes** (February 25-27, 2017)

Organized by Punjab Medical College/Allied Hospital, Faisalabad

Talk topic: Association studies of Insertion/Deletion (I/D) Polymorphism of Angiotensin Converting Enzyme in Cardiometabolic disease patients

### **46<sup>th</sup> Annual Conference of Pakistan Cardiac Society (CardioCon 2016)** (November 25-27, 2016)

Organized by Punjab Medical College/Allied Hospital and Faisalabad Institute of Cardiology

Talk topic: Molecular Analysis of Insertion/Deletion (I/D) Polymorphism of Angiotensin Converting Enzyme in Cardiometabolic disease patients

### **1<sup>st</sup> International Conference on Advancements in Biotechnology** (March 30-31, 2016)

Government College for Women University, Faisalabad

Akhuwat Faisalabad Institute of Research Science and Technology

Poster title: Novel mutation identified in Ubl domain of Parkin protein in Pakistani Parkinson's disease patient

### **International Conference of Biochemistry, Biotechnology and Biomaterials (ICBBB, 2016)** (Feb 22-24, 2016)

Department of Biochemistry, University of Agriculture, Faisalabad, Pakistan

Poster title: Genetic and Biochemical Analysis of Biological Risk Factors Causing Cardiovascular Problems in Type 2 Diabetic Patients

**2<sup>nd</sup> National Students Conference** (Oct 12-14, 2015)

National Institute for Biotechnology and Genetic Engineering, Faisalabad,  
Pakistan

Poster title: Analysis of Type 2 Diabetic Patients for Cardiovascular  
disease causing risk factors

### **Personal details**

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|------------------|----------------------|
| Nationality      | Pakistani            |
| Current Location | Faisalabad, Pakistan |
| Gender           | Female               |
| Date of Birth    | 16-12-1989           |

### **References**

References can be provided on demand