

**Dr. AMJAD ALI**

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Centre for Applied Molecular Biology  
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**RESEARCH INTERESTS**

Infectious diseases particularly caused by RNA viruses, Virus-host interaction, Virus evolution and mutation analysis, Immunity and Vaccines, Genetic and Zoonotic Diseases

**WORK EXPERIENCE**

**October, 2015-present**

**Assistant Professor**

Centre for Applied Molecular Biology, University of the Punjab, Lahore Pakistan

**October, 2015-present**

**Assistant Superintendent**

Boys Hostel No. 19, University of the Punjab, Lahore Pakistan

**August, 2013- February, 2014**

**Visiting scholar**

Department of Cell and Systems Biology, University of Toronto, Canada

**March 2011- March 2012**

**Research Associate**

Department of Genetics, Hazara University Mansehra, Pakistan

**HONOURS/SCHOLARSHIPS**

- Awarded with merit based scholarship of the Government of Khyber Pakhtunkhwa, Pakistan for the degree of Doctor of Veterinary Medicine (DVM) in 2001-2002
- Awarded with Higher Education Commission of Pakistan scholarship for the studies of PhD degree program in Genetics in 2012
- Awarded with Higher Education Commission of Pakistan scholarship for the completion of PhD research work under the International support initiative program (IRSIP) to the University of Toronto, Canada in 2013

## **RESEARCH / ACADEMIC POSITIONS**

### **October, 2015- present**

Assistant Professor  
Centre for Applied Molecular Biology  
University of the Punjab, Lahore Pakistan

### **August, 2013- February, 2014**

Visiting Scholar  
Department of Cell and Systems Biology  
University of Toronto, Canada

### **March 2011- March 2012**

Research Associate  
Department of Genetics  
Hazara University Mansehra Pakistan

### **2011-2015**

PhD student  
Department of Genetics  
Hazara University, Mansehra

### **PhD Project**

Molecular epidemiology of Dengue virus infection and full length characterization of prevalent genotypes in Pakistan

### **PhD research work conducted at:**

- Department of Genetics, Hazara University Mansehra, Pakistan
- Institute of Biotechnology and Genetic Engineering, The University of Agriculture Peshawar, Pakistan
- Department of Cell and Systems Biology, University of Toronto, Canada

### **Research activities during PhD**

- ❖ Active dengue infection determination
- ❖ Serotypes/genotypes determination
- ❖ Complete genome sequencing
- ❖ Dengue Virus characterization
- ❖ Bioinformatics analysis of Pakistani DENV isolates

### **Research activities as Research Associate**

- ❖ Mitochondrial DNA analysis of the various ethnic groups of Khyber Pakhtunkhwa, Pakistan. Focus was on HVS1 and HVS2 regions of mtDNA in humans
- ❖ Y-STRs and dental analysis
- ❖ Teaching to undergraduate students
- ❖ Research to undergraduate students

### **2008-2010**

#### **Research Student for the Master of Philosophy thesis work**

##### **Research Area:**

- ❖ Prevalence of active Hepatitis C infection in Mansehra District Khyber Pakhtunkhwa Pakistan

### **TEACHING EXPERIENCE**

- General Virology
- Molecular Virology and Bacteriology
- Molecular Genetics
- Genetic Engineering

### **RESEARCH/PROFESSIONAL EXPERIENCE**

- Handling, manipulating, isolation and expression of RNA and RNA viruses
- Dengue virus active infection determination
- Dengue virus detection, genotyping, molecular characterization, sequencing and bioinformatics analysis
- PCR based qualitative analysis of Hepatitis-C virus
- Extraction of genomic DNA and mtDNA from blood and saliva samples
- Y-STRs and dental morphological characterization
- Research to students in various fields
- Biostatistics and Computer Applications
- Animal Genetics & Population Genetics
- Animal Breeding and Genetics

## **PRINCIPAL INVESTIGATOR OF RESEARCH PROJECT**

### **Ongoing**

- Isolation, amplification and characterization of the complete Envelope gene sequences of all the four serotypes of Dengue virus, prevalent in Pakistan; a first step towards tetravalent vaccine development against dengue. (Higher Education Commission of Pakistan, 2016; PKR 0.5 Million) **PI**

## **CONTRIBUTION TO GENBANK**

- 4 complete genome sequences of DENV Pakistani isolates
- 37 partial genome sequences of DENV Pakistani isolates

## **SCIENTIFIC PROGRAMS/ACTIVITIES ORGANIZED**

- Establishment of Human Genetics Lab in Hazara University, Mansehra Pakistan
- 1<sup>ST</sup> International Symposium on the Himalayas of Pakistan; Resources and conservation issues

## **SCIENTIFIC/ACADEMIC MEMBERSHIP**

- Member *Senate*, Hazara University, Mansehra Pakistan
- Member *Pakistan Society for Conservation Biology*, Pakistan
- Member *Graduate Record Examination Committee*, Hazara University Mansehra, Pakistan

## **BIOINFORMATICS/STATISTICAL SKILLS**

- SPSS
- BioEdit
- Datamonkey tools; SLAC, FEL, REL etc
- PhyML, Archaeopteryx, FigTree, Clustal Omega, MEGA etc
- GARD tool of HyPhy package
- NCBI tools like CDD etc

### **SOME OF THE COURSES STUDIED**

General Biochemistry, Physiology, Biostatistics and Computer Applications, General Histology & Embryology, Applied Physiology, Animal Genetics & Population Genetics, Molecular Biology, General Microbiology & Immunology, General & Systemic Pathology, General Pharmacology & Toxicology, General & Systemic Virology, Lab & Zoo Animal Welfare and Management, Reproductive Biotechnology, Obstetrics & Genital Diseases, Embryology, Molecular Genetics, Gene Regulation, Proteomics & Enzymology, Cytogenetic Technology, Genetic Engineering, Advance Aerobiology etc

### **PAPERS PRESENTED IN CONFERENCES/SYMPOSIA**

- Haleema Sadia, Muhammad Idrees Khan, Khalid Mahmood, Muhammad Yaser Khan, **Amjad Ali**, Amna Shafi. 2016. A1  $\beta$ -casein: A hidden devil in the Milk. Oral Presentation. *INTERNATIONAL LIVESTOCK, DAIRY AND POULTRY CONGRESS*, Expo Center Lahore, Pakistan (March 16-17).
- **Amjad Ali**, Habib Ahmad, Muhammad Idrees, Fazli Zahir, Mounir G. AbouHaidar, Ijaz Ali. 2016. Molecular Epidemiology of Dengue Virus (DENV) Infection in Two Dengue Outbreaks in Pakistan. Poster Presentation. *MIDDLE EAST AND SOUTH ASIAN CONFERENCE ON EPIGENETICS AND GENOMICS OF INFECTIOUS DISEASES*, in Amman, Jordan (March 7-8).
- **Amjad Ali**, Habib Ahmad, Ijaz Ali And Mounir G. Abouhaider. 2014. The spread of Dengue virus from Southern to Northern Pakistan. Oral Presentation. *1<sup>ST</sup> INTERNATIONAL SYMPOSIUM ON THE HIMALAYAS OF PAKISTAN; RESOURCES AND CONSERVATION ISSUES*, Hazara University Mansehra, Pakistan (November 27-30).

## **SCIENTIFIC PROGRAMS PARTICIPATED/ATTENDED**

- **2016** Participated in the seminar and hands on training on *ADVANCES IN NUCLEIC ACID TECHNOLOG*, Centre for Applied Molecular Biology, University of the Punjab Lahore, Pakistan, (September 01)
- **2016** Participated in *NATIONAL WORKSHOP ON CRISPR/CAS9 GENOME EDITING TECHNOLOGY*, Centre of Excellence in Molecular Biology, University of the Punjab Lahore, Pakistan (June 2)
- **2016** Participated in *5<sup>TH</sup> INVENTION AND INNOVATION SUMMIT*, University of the Punjab, Lahore Pakistan (March 2-3)
- **2015** Attended seminar on *REAL TIME PCR RESULTS FOR REAL TIME PATIENT MANAGEMENT*, CAMB, University of the Punjab Lahore, Pakistan (October 28)
- **2015** Attended *5<sup>TH</sup> NATIONAL CONFERENCE ON TRENDS TOWARDS BIODIVERSITY CONSERVATION IN PAKITAN*, Centre of Plant Biodiversity and Botanical Garden, Baragali Summer Campus, University of Peshawar, Pakistan (August 2-4)
- **2013** Attended the ‘gairdner 2013 *PROGRAM OF SCIENTIFIC EVENTS*’, *LES PRIX CANADA GAIRDNER AWARDS*, University of Toronto, Canada (October 23-25)

## **PUBLICATIONS**

### **PUBLISHED**

- **Amjad Ali**, Habib Ahmad, Muhammad Idrees, Fazli Zahir, Ijaz Ali. 2016. Circulating serotypes of dengue virus and their incursion into non-endemic areas of Pakistan; a serious threat. *Virology Journal*, 13:144. DOI 10.1186/s12985-016-0603-6
- **Amjad Ali**, Habib Ahmad, Ijaz Ali, Sheema Khan, Gulshan Zaidi, Muhammad Idrees. 2010. Prevalence of active hepatitis c virus infection in district Mansehra Pakistan. *Virology Journal* 7:334. DOI:10.1186/1743-422X-7-334

- **Amjad Ali**, Zeeshan Nasim, Rafi Ur Rehman, Farzana, Sajid Ali, Fazli Zahir, Aqib Iqbal, Ijaz Ali and Abdul Waheed Khan. 2013. Dengue virus serotype 2 and 3 causing high morbidity and mortality in Swat, Pakistan. Biohelikon: Immunity and Diseases 1: 1-3
- **Amjad Ali**, Habib Ahmad, Ijaz Ali And Mounir G. Abouhaider. 2014. The spread of Dengue virus from Southern to Northern Pakistan. Pharmacologyonline Supplementary Issue

#### **SUBMITTED**

- **Amjad Ali**, Habib Ahmad, Mounir G. AbouHaidar, Muhammad Idrees, Taj Muhammad Khan, Sajjad Ullah, Tauqeer Ahmad, Ijaz Ali. Complete genome of dengue virus serotype 2 (DENV-2) from two different provinces/habitats of Pakistan. PloS Neglected Tropical Diseases.
- Sadeeq ur Rahman, Mudassir Nazar, Murad Ali Khan, Ata ur Rahman, **Amjad Ali**. Prevalence and transplacental transmission of Anaplasma marginale in dairy cattle: comparative susceptibility of local and exotic cattle breeds in Khyber Pakhtunkhwa-Pakistan. Tropical Animal Health and Production.

#### **REFERENCES**

[Please ask if required.](#)