

## Objective

Seeking a full time position that will lead to opportunities in biotechnology and pharmaceutical industry.

## Key Skills

- Cell culture
- Proteomics
- Genomics
- Protein assays
- Immunohistochemistry
- Immunofluorescence
- Western Blot
- ELISA
- Gel Electrophoresis
- Flow Cytometry
- Microscopy
- Pipetting
- Transformations
- Transfections
- PCR
- Molecular cloning
- Histological staining
- Bioinformatics
- Python (basic)
- MATLAB (basic)
- Microsoft Office
- Isolation of peripheral blood mononuclear cells (PBMC) and other white blood cells from blood
- Derivation of primary cells (adult fibroblasts) from biopsy samples
- Maintenance of digital records of protocols and data

## Education

**Master of Science : Biology, 2016**  
**Texas A&M University (TAMU)** — College Station, TX, USA

**Bachelor of Science : Biology, 2013**  
**Lahore University of Management Sciences (LUMS)** — Lahore, Punjab, Pakistan  
BS thesis title: "Conditioned medium prepared from immortalized mouse embryonic fibroblasts supports culture of trophoblast stem (TS) cells."

## Work Experience

### **Research Assistant**

- Department of Biology, TAMU (2014 – To Date)
- Department of Biology, LUMS (2013-2014)

### **Teaching Assistant**

- Introductory Biology lab, TAMU (2014 - To Date)
- Introduction to Biology, LUMS (2012)

## Publications

### **August 2014 - To Date - Research Assistant, TAMU:**

#### **DETERMINING THE ROLE OF LUNG EPITHELIAL CELLS IN WOUND HEALING AND FIBROSIS**

- Determined various ways in which human lung epithelial cells respond to factors that inhibit fibrosis
- Showed that lung epithelial cells actively partake in the process of wound healing by interacting with immune cells and fibroblasts

### **August 2014 - To Date - Research Assistant, TAMU:**

#### **IDENTIFICATION OF FACTORS THAT REGULATE CELL DENSITY IN EUKARYOTES**

- Used Dictyostelium discoideum as a model organism to identify components of signal transduction pathway regulating cell density
- Applying the findings to higher eukaryotes will provide great insight into cell cycle regulation

### **July 2013 - June 2014 - Research Assistant, LUMS:**

#### **PREPARATION OF CONDITIONED MEDIA FROM IMMORTALIZED MOUSE EMBRYONIC FIBROBLASTS TO SUPPORT TROPHOBLAST STEM CELL CULTURE**

- Derived immortalized primary mouse embryonic fibroblasts
- Prepared conditioned media from them to show they support culture of trophoblast stem cells

### **June 2012 - May 2013 -Undergraduate thesis, LUMS**

#### **GENERATION OF HUMAN INDUCED PLURIPOTENT STEM CELLS FROM PATIENT BIOPSIES– Grade: A**

- Obtained patient biopsies, derived primary fibroblasts from them
- Induced pluripotency in human adult fibroblasts to use it for personalized regenerative medicine

### **Summer 2011 : Internship, LUMS**

#### **PREDICTION OF MODIFIED HISTONE TAIL PEPTIDE BINDING TO HISTONE BINDING PROTEINS**

- Project aimed at using empirical docking and scoring approaches to predict binding of histone tail peptides, containing modified lysines and flanking residues, to histone-binding proteins
- Had an opportunity to learn computational biology