Yumna Zahid

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Education:

MASTER OF SCIENCE IN BIOLOGY - GPA: 3.55 **May 2016**

Cell and Molecular Biology

Texas A&M University (TAMU), College Station, Texas

Relevant Courses: Molecular tools in Biology, Cell Biology, Entrepreneurial Issues in Biomedical Engineering, Biotechnology Writing, Statistics in Research, Good Lab and Good Clinical Practices in Medical Devices, Experimental Design in Biology

BACHELOR OF SCIENCE IN BIOLOGY **May 2013**

Cell and Molecular Biology

Lahore University of Management Sciences (LUMS), Lahore, Pakistan

Relevant Courses: Cell Biology, Molecular Biology, Computational Biology, Immunology, Genetics, Biochemistry, Neuroscience, Virology and Microbiology, Drug Discovery and Development

Relevant Skills and Techniques:

CELL AND MOLECULAR BIOLOGY TECHNIQUES:

- Cell Culture
- RNA and DNA isolation
- Flow Cytometry
- cDNA synthesis
- Expression cloning
- PCRs (RT-PCR, qPCR, Real-Time PCR)
- Proliferation assays
- Gel Electrophoresis
- Histological procedures (embedding, sectioning, staining)
- In situ hybridization
- Genetic marker profiling
- Gene expression
- Isolation of PBMC and other white blood cell populations from blood
- Primer construction and cloning

PROTEIN BIOCHEMISTRY TECHNIQUES:

- Proteomics
- Western blot/imaging
- Immunoprecipitation
- Immunofluorescence/ Immunohistochemistry
- ELISA
- Protein expression

DATA ANALYSIS SKILLS:

- Software - JMP and GraphPad Prism
- R-programming (statistical analysis)
- Bioinformatics (Basic)
- Maintenance of digital records of protocols and data

Relevant Experience:

PROJECT ASSISTANT, TEXAS A&M UNIVERSITY **AUGUST 2014 – DECEMBER 2015**

Determining the role of lung epithelial cells in wound healing and fibrosis

- Worked with a team of 3 researchers to investigate various ways in which human lung epithelial cells respond to factors that inhibit fibrosis
- Demonstrated that lung epithelial cells actively partake in the process of wound healing by interacting with immune cells and fibroblasts

PROJECT ASSISTANT, TEXAS A&M UNIVERSITY **AUGUST 2014 – DECEMBER 2015**

Identification of factors that regulate cell density in eukaryotes

- Worked with a team of 2 researchers in using amoeba (*Dictyostelium Discoideum)* as a model organism to identify components of signal transduction pathway regulating cell density

PROJECT ASSISTANT, LUMS **JULY 2013 – JUNE 2014**

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

UNDERGRADUATE THESIS, LUMS **JUNE 2012 – MAY 2013**

Generation of human induced pluripotent stem cells (iPSC) from patient biopsies – Grade A

- Collaborated with local hospitals to obtain patient biopsies for derivation of primary fibroblasts
- Induced pluripotency in human adult fibroblasts to use it for personalized regenerative medicine

INTERNSHIP, LUMS **SUMMER 2012**

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 methods

Work Experience:

GRADUATE ASSISTANT, TEXAS A&M UNIVERSITY **AUGUST 2014 – MAY 2016**

- Research Assistant in an Immunology lab (Richard Gomer Lab)
- Teaching Assistant for Introductory Biology I and II

RESEARCH ASSISTANT, LAHORE UNIVERSITY OF MANAGEMENT SCIENCES **JULY 2013 – JUNE 2014**

- Stem cell lab (Zakir Ullah Lab)

TEACHING ASSISTANT, LAHORE UNIVERSITY OF MANAGEMENT SCIENCES **SPRING 2012**

- Introduction to Biology

Presentations:

- **Zahid Y**, Rafi A, Ullah Z. The use of immortalized primary mouse embryonic fibroblast and NIH 3T3 cells to culture trophoblast stem cells
  - 11th Biennial Conference on "Molecular Biosciences – Challenges and Opportunities" by Pakistan Society for Biochemistry and Molecular Biology – 2013
- Nasir A, **Zahid Y**, Ullah Z. A molecular insights of mouse fibroblast growth factor 4 (FGF4) expression in E.coli and its application for maintenance of mouse trophoblast stem cells
  - 11th Biennial Conference on "Molecular Biosciences – Challenges and Opportunities" by Pakistan Society for Biochemistry and Molecular Biology – 2013

Other Skills:

COMPUTER SKILLS: Python Programming (basic), Microsoft Office, MATLAB (basic)
WRITING SKILLS: Freelance content writer (2012-2014)
LEADERSHIP: Exceptional communication, organizational, public speaking and mentoring skills
LANGUAGE: Bilingual in English and Urdu, conversational in Hindi

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