

## **Tsghe W. Abraha**

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### **SUMMARY OF QUALIFICATIONS**

Life Science Laboratory Technician with extensive technical background in cell culture, protein detection, radiation safety and complex technical assays. Proficient in sample preparation, making culture media, reagents and solutions.

- Experienced in lab management to ensure reliable and smooth running environment so that research staff can meet demanding timelines for research projects, grant applications, manuscript submission and presentations
- Consistently recognized by senior supervisors as being diligent, positive and a team player. Received exceptional recommendations from previous supervisors
- Computer literate in Microsoft Office (Word, Excel, PowerPoint and Outlook) Window 2000-2007, and Window XP and Vista Operating System

### **EDUCATION**

**B.S.** Biology, minor Chemistry- New Mexico State University Las Cruces, NM

### **EXPERIENCE**

University of Missouri, Columbia MO 1999-2009

**Research Specialist-** Pathology Department (lab at VA Hosp.) 2005-2009

- Run ELISA Antibody Array on ovariectomized pigs serum to measure VEGF, PDGF and TGF
- Maintained mammalian MDA-MB 431 cancer cells and HUVEC endothelial cells to study TF-antigen and galactine-3 interaction in adhesion of tumor cells to the endothelium.
- Prepared tissue and cell lysates for protein determination and run SDS gel electrophoresis and western blot assay
- Extracted JAA-F11 antibody against galectine-3 and TF antigen from TIB-166 cells using column concentrator
- Isolated DNA from brain tissue using RNA easy from Qiagen
- Prepared media to grow pLEGFP-N1 plasmid and extracted DNA
- Extracted protein from tissue, cells and fat using different procedures
- Performed immunoprecipitation (I.P.) on tissue homogenates for SDS gels
- Trained new lab personnel and assisted post-docs with their projects

**Research Specialist -** Veterinary Biomedical Sciences Dept. 2000-2005

- Run RIA on media conditioned by skeletal muscle satellite cells treated with IGF-1
- Assisted graduate students and post-docs on research projects that focus on the effect of exercise on muscle growth and how this affects various cell signaling pathways.

- Collected tissue from experimental animals, weighed, then immediately frozen in liquid nitrogen and finally stored at -80°C for further analysis
- Prepared tissue (skeletal and fat) and cell samples for protein assay
- Run SDS electrophoresis and western blot

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- Scanned western blot autoradiograph films using densitometer (Molecular Dynamics) and the bands were quantified using Image Quant software
- Prepared endothelial cells from fresh abdominal aorta of pigs to study the effect of exercise with a combination of high and low fat diet on cardiovascular disease and diabetes
- Isolated RNA from endothelial cells and assayed for RT-PCR
- Isolated RNA from frozen muscle samples, fresh fat and endothelial cells using Trizol and determined RNA concentration using optical density
- Maintained cell culture of C2C12 cells, skeletal cells satellite cells and endothelial cells
- Prepared media, buffers and solutions to run experiments
- Reviewed work of laboratory assistants and trained new personnel
- Performed radiation survey as needed and reported to radiation safety officers
- Maintained inventory of material, supplies and equipment for daily use

**Senior Lab Technician** - Veterinary Patho-Biology Dept. 1999-2000

- Conducted cell culture and virus experiment to generate mutant strains of Murine cytomegalovirus (MCMV) by cotransfecting NIH 3T3 mouse fibroblasts with plasmid clones
- Isolated viral DNA from MCMV infected cells using ultra centrifuge and isolated DNA from infected cells
- Prepared media, buffers and solutions for cell culture experiments

#### **PRIOR RELEVANT EXPERIENCE**

**Pharmacy Technician**- Interlock Pharmacy: Columbia MO

**Senior Research Technician** – University of TN- Knoxville TN

**Senior Research Technician** – Auburn University- Auburn AL

**Laboratory Technician** – Auburn University-Auburn AL

#### **PUBLICATIONS**

Co-authored 10 publications in referred journals

#### **PROFESSIONAL CERTIFICATION**

Radiation Safety Certification- Auburn University Nuclear Science Center  
VA Hospital Radiation and Lab Safety –annual training

