
Shantelle Lucas
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Objective: To obtain a lab position at the National Institutes of Health (NIH) to conduct my thesis work for PhD program.

Educational Background:

Doctor of Philosophy- Microbiology Anticipated Graduation Date: 5/13/2012

Howard University Washington, DC 20059

Overall GPA: 3.83

Courses:

* Biology of Pathogens I, *Biology of Pathogens II, * Graduate General Biochemistry, *Molecular Biology, * Microbiology Seminar, * Biochemistry Lab, * Biostatistics, * Cell and Molecular Immunology, * Virology, * Cell Biology

Major: Biological Sciences, B.S. (Cum Laude) **Minors:** *Genetics and Health, Medicine, and Human Values

North Carolina State University Raleigh, NC 27695-7103

Overall GPA: 3.328

Major GPA: 3.400

Graduation Date: 5/15/2004

Courses:

* Biology I and II, * Organic Chemistry I and II, * Cell Biology, * General Chemistry I and II, * Physics I and II, * Genetics, * Advanced Genetics, * Botany, * Ecology, * Microbiology * Human Anatomy and Physiology, * Statistics, * Biochemistry, * Medical Terminology, * English I and II, * Scientific Writing

Employment:

Pre-doctoral IRTA Fellow (08/01/07- 02/28/2009)

National Institutes of Health

Duties: My primary duty in the lab was to be responsible for individual designing, planing, performing, analyzing, and concluding results obtained from my experiments in order to construct a PhD thesis. The thesis project that I was working on required me to use the following techniques to determine the role of sphingosine kinase 2 in aiding in mast cell effectors functions, which give rise to symptoms seen in both allergic and asthmatic patients: confocal microscopy, FACS analysis, transient and stable transfection, mast cell degranulation assays, cytokine release assays, restriction enzyme digestions, maxi and mini preps, bacterial transformation, polymerase chain reaction (PCR), immunohistochemistry, sited-directed mutagenesis, and sequencing of sphingosine kinase 2 in aiding in mast cell effectors functions, which give rise to symptoms seen in both allergic and asthmatic patients.

Contract Services Coordinator (6/28/04- 6/3/05)

CellzDirect

Duties: Conducting liver profusions and cell isolations to produce viable hepatocytes as cells products for customers, to conduct studies in drug metabolism, and induction studies. Evaluating Cytochrome P450 in various mammalian hepatocytes through induction studies. Also, performing Quality Control (QC) on hepatocyte cells sold to customers for product development. Lastly, I coordinated contracted induction studies projects given to CellzDirect by companies such as: BMS, Eli Lilly, etc. This job entitled me to plan the cells and supplies we needed, the number of people needed, the experimental

design for the study to conduct the study; to send samples to our site in Austin, TX for analysis; and to take this data and compute it into graphs suitable for interpretation by both the company wanting the work done and the FDA. The techniques used to perform the above tasked include the following: animal surgery, perfusion of organs, tissue culture, quality control analysis, cryopreservation, microsome preparation, RNA analysis, microsome preparation, and LDH assay.

Biological Lab Technician (10/21/02-5/14/04)

National Institute of Environmental Health Sciences- Laboratory of Comparative Pathobiology

Duties: Designing, writing, conducting, presenting data generated from conducted experiments. Also, my duties consisted of ordering, stocking supplies for the laboratory, and assisting other scientists with their projects. I primarily used the following techniques: cell culture, protein extraction, western blots, immunohistochemistry, necropsy, assays(proliferation, hormone effects, etc.)

Clerk Typist (5/14/01-8/14/02)

National Institutes of Health- National Institute of Blood, Heart, and Lung (Hematology/Oncology Branch)

Duties: Assisted secretaries with their duties such as answering telephones, xeroxing, filing, dictations, and I also assisted the Hematology Fellowship Program Assistant with fellows starting rotations in the branch by gathering and putting together notebooks containing protocols needed for clinical trials, and basic rules and regulations.

Research and Development Skills:

- * Confocal Microscopy
- *FACS analysis
- *Transient Infection
- *RE digestions
- *Sequencing
- * Serial Dilution
- * Protein Extraction
- *RNA extraction
- *RT-PCR
- * Southern Blotting
- *Gel electrophoresis
- * MTT Assay
- * Making media/buffers
- * Perfusion of organs
- * Animal surgery
- * Mammalian Tissue Culture
- * ELISA
- * Cryopreservation
- * Disk- Diffusion
- *Cloning
- * Mast Cell Degranulation assays,
- *Stable Transfection
- *Cytokine release assays
- *Mini/Maxi Prep
- *Site-Directed mutagenesis
- * Bacterial Transformation
- * DNA extraction
- * Western blotting
- * PCR
- * Northern Blotting
- * Immunohistochemistry staining
- * Autoclaving techniques
- * Staining techniques
- * Quality Control Analysis
- * Necropsy
- * Induction Studies
- * Microsome preparation
- *Minimal Inhibitory Concentration Test
- * LDH assay

Office Skills:

- * Microsoft Software (Publisher, Excel, Word, PowerPoint)
- * Word Processing
- * Data entry
- * Filing
- * Dictation
- * Oral Presentations
- * Developing Protocols.

Papers:

Yu L, Saile K, Swartz CD, He H, Zheng X, Kissling GE, Di X, Lucas S, Robboy SJ, Dixon D. Differential expression of receptor tyrosine kinases (RTKs) and IGF-I pathway activation in human uterine leiomyomas. Mol Med. 2008 May-Jun;14(5-6):264-75. Erratum in: Mol Med. 2008 Jul-Aug;14(7-8):538.

Bloch EF, Morrison K, McDonald-Pinkett S, Baskin S, Campbell S, Peters S, Dillahunt S, Evans D, Lucas S, Macatangay A, Kanaan Y. The deposition of C5b-9 complexes and its precursors on E. coli J5 during complement activation enhances uptake and toxicities of gentamicin. Immunol Invest. 2008;37(3):245-61.

Honors/Awards:

Golden Key Honor society- (Fall 2008-present)

*Sigma Xi Research Honor Society (Spring 2006-present)

*Bridge to Doctorate Scholar (Fall 2005-Spring 2007)

* AGEP Fellow (Summer 2005)

*National Dean's List (Fall 2002-Spring 2004)

* National Society of Collegiate Scholars (Fall 2002-Present)

* North Carolina State University Dean's List (Fall 2002- Spring 2004)

*Honor Roll for Minority department at North Carolina State University (Fall 2002-Spring 2004).

Organizations:

*Howard University-Graduate Student Council (Fall-2005-Present)

*Graduate Partnership Program- Thesis Committee (Fall 2008-Present)

Community Service:

*Raleigh/ Adopt-A-Highway

*Mentoring at the Boys and Girls club

*Judge at elementary school science fair-February 2008

*Manna Food Drive-NIH Graduate Partnership Program

Conferences Attended:

*Biodefense and Emerging Infectious Diseases

*Clinical Research Forum (Howard/Wisconsin)

Recommendations are available upon request