

Curriculum Vitae

Personal Information

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Education

1997 Doctor of Philosophy in Genetics and Human Genetics
Howard University, Washington, DC
1991 Master of Science in Biology. Texas Southern University
Houston, Texas
1988 Bachelor of Science in Biology / Minor in Chemistry
Texas Southern University, Houston, Texas

Professional Experience

2017-Present Associate Professor
Department of Biology
Texas Southern University
Houston, Texas
2011-2017 Assistant Professor
Department of Biology
Texas Southern University
Houston, Texas
2007-2011 Adjunct / Visiting Assistant Professor
Department of Biology
Texas Southern University
Houston, Texas
2005-2009 Research Scientist
Department of Genetics
UT-MD Anderson Cancer Center
Houston, Texas
2002-2005 Post-Doctoral Fellow
Department of Molecular Genetics
Section of Cancer Genetics
UT-MD Anderson Cancer Center
Houston, Texas
1997-2000 Post-Doctoral Fellow and New Investigator in the Program
of Excellence in Molecular Biology of Heart and Lung
Department of Molecular Genetics

College of Medicine
University of Cincinnati
Cincinnati, Ohio

- 1994-1997 Intramural Research Training Award (IRTA) Fellow
Laboratory of Gene Transfer / Gene Identification
National Human Genome Research Institute (NHGRI)
National Institutes of Health (NIH)
Bethesda, Maryland
- 1992-1994 Graduate Teaching Assistant
Department of Genetics and Human Genetics
College of Medicine
Howard University
Washington, District of Columbia
- 1991-1992 Research Assistant / Teaching Assistant
Laboratory of Molecular Biology
Department of Biology
Texas Southern University
Houston, Texas
- 1989-1991 MBRS Fellow / Graduate Teaching Assistant
Laboratory of Molecular Biology
Department of Biology
Texas Southern University
Houston, Texas

Teaching Experience

- 2011-Present: Assistant Professor, Texas Southern University, Houston, Texas.
I taught general biology courses to non-biology and biology majors (BIOL 143 Survey of Life Science, BIOL 131 Biological Sciences I and BIOL 132 Biological Sciences II). I also taught BIOL 338, Genetics, BIOL 401 Undergraduate Research, BIOL 439, Principles of Biology, BIOL 450, Molecular Genetics and BIOL 460, Biostatistics, to undergraduate students. I also taught BIOL 636 Endocrinology, BIOL 710 Microbial Genetics, and BIOL 715 Advanced Human Genetics, to graduate students. I used information from several different textbooks, journals and internet websites in my methods of teaching. Using these methods was the most astonishing experience because I was able to gather and compile information from several different sources, including my own research works, and then transform the information into simplified lecture topics that the students were able to absorb, comprehend and appreciate very well. I proctored examinations and grade exams' papers; and I make sure that the exams' grades are turned in on time. In addition, I have office hours for tutorial section to help students that may need additional tutoring to understand some lecture topics or may have questions about any biological topics.
- 2007-2011: Adjunct Assistant Professor and Visiting Assistant Professor, Texas Southern University, Houston, Texas.

I taught general biology courses to non-biology and biology majors (BIOL 143 Survey of Life Science, BIOL 131 Biological Sciences I and BIOL 132 Biological Sciences II). I also taught principle of biology to undergraduate students. In addition, I also taught BIOL 636 Endocrinology, BIOL 710 Microbial Genetics, BIOL 715 Advanced Human Genetics, and BIOL 631 Diagnostic Bacteriology to graduate students. I used information from several different textbooks, journals and internet websites in my methods of teaching. Using these methods was the most astonished experience because I was able to gather and compile information from several different sources, including my own research works, and then transform the information into simplified lecture topics that the students were able to absorb, comprehend and appreciate very well. I proctored examinations and grade exams' papers; and I make sure that the exams' grades are turned in on time. In addition, I have office hours for tutorial section to help students that may need additional tutoring to understand some lecture topics or may have questions about any biological topics.

1992-1997: Graduate Teaching Assistant, Howard University, Washington, District of Columbia (1992-1994) and IRTA Fellow, NHGRI, NIH, Bethesda, Maryland; and a PhD Candidate, Howard University, Washington, District of Columbia (1994-1997).

I was selected by my incoming classmates to represent as the spoke person. Also I was responsible for organizing student's seminars, journal's club, and student meetings, and also encouraging the students to invite guest speakers. I was selected by the Department of Genetics and Human Genetics to give a lecture in the College of Dentistry at Howard University on a topic that deals with the human genome "gene mapping".

1991-1992: Research Assistant / Teaching Assistant, Texas Southern University, Houston, Texas.

I taught biology laboratory courses to undergraduate students that are biology majors and I oversee molecular biology laboratory section of Dr. Kiah Edwards' lab. I organized and setup all experimental materials and instruments that are needed to teach the laboratory section. In addition, I also tutor students who may need additional help with their biology course work. Also, I help both undergraduate and graduate students in Dr. Kiah Edwards' lab to organize and setup their research experiments; and also, I advised students on experimental designs, procedures and data interpretation of their results when necessary; and I organized the lab journal club meetings. I participated in journal club and gave presentations.

1989-1991: MBRS Fellow / Graduate Teaching Assistant, Texas Southern University, Houston, Texas.

I taught biology laboratory courses to undergraduate students and I oversee molecular biology laboratory section of Dr. Kiah Edwards' lab. I organized and setup all experimental materials and instruments that are needed to teach the laboratory section. In addition, I also helped in tutorial section. Also, I helped undergraduate students in Dr. Kiah Edwards' lab to organize and setup their research experiments; and also advised students on experimental designs, procedures and interpretation of their results when necessary.

Research Experience and Mentoring

I have listed and briefly described below in chronological order my research and mentorship experiences during the course of my training and career development. I worked and trained at several institutions, such as UT-MDACC, UC, NIH, HU and TSU where I have first hand experiences and trainings in different molecular biology techniques and tools that are used to study and analyze biological problems. In addition, I attained versatile knowledge in different areas of biological sciences through, interdepartmental trainings, seminars, meetings, workshops and collaborations. My training at these institutions has built my confidence and prepared me to be a teacher, a scientist and a leader that can design and manage independent research projects. I have participated in research projects that dealt with both aspects of human and non-human studies, such as cancer, cardiovascular disease, neuromuscular disease, ischemic reperfusion injury in animal model and avian genome studies.

2011-Present: Assistant Professor, Texas Southern University, Houston, Texas.

In an effort to continue my endeavor and quest for research at TSU, my research is focused on genetic diseases and genomic studies. I am a member of the graduate faculty and currently I serve as the department graduate coordinator. Also, I supervise graduate students' research and serve on graduate students' thesis and dissertation committees. In my lab here at TSU, where I continuously trained and mentored graduate students education and research endeavor, graduates from my lab have acquired broader knowledge of bio-techniques and experimental designs which have landed the graduates in good jobs with industries or states, while few have decided to enter into doctoral program. In addition, I also supervise undergraduate students' research projects as well, few of these undergraduate students who completed their degree or are in the process of completing their degree have decided to enter the Biology Graduate Program at TSU and join my lab.

2009-2010: Adjunct/Visiting Assistant Professor, Texas Southern University, Houston, Texas.

In an effort to continue my endeavor and quest for research at TSU, I volunteered to participate in research projects in which we study the effects of microgravity and radiation on microorganisms during NASA spaceflight missions. In one of the labs at TSU that was involved in microgravity research, I helped and supervised the graduate students, as well as the C-BER student fellows to design the molecular biology aspect of their experiments. The lab interest was to study the effects of simulated microgravity and radiation on several microorganism models as well as cell models by employing experimental approaches that will allow us to study several biological pathways, such as cell cycle, DNA damage and repair, stress and survival, and apoptosis, including others (e.g. the effects of DNA hypermethylation and hypomethylation, non-coding RNA and alternative spliced RNA). The molecular biology experimental designed approaches that I helped to develop were included in the poster presentation of the C-BER student fellows during 2010 NASA site visit to TSU-NASA C-BER program. I also helped and supervised the students in the lab with molecular biology experimental technical problems and designs.

2005-2009: Research Scientist, the UT-MD Anderson Cancer Center, Houston, Texas.

At MDACC, I worked on two different projects. My first research project involves positional cloning of the non-*p53* Li-Fraumeni Syndrome (LFS) gene. I used several different molecular genetic techniques, such as (1) genotyping of non-*p53* LFS families DNA samples with microsatellite markers and SNPs array technology to generate genotyping data for linkage analysis, (2) searching the UCSC Genome Browser and other database for di, tri and tetra nucleotide repeats to design additional microsatellite primer sets, (3) using multiple available information that are published in journals to identify potential candidate genes in the non-*p53* LFS locus minimal interval on chromosome 1q23.3, (4) performing direct sequencing of non-*p53* LFS families DNA samples to detect mutations in candidate genes, and (5) performing RT-PCR to detect aberrant/alternative spliced cDNA in non-*p53* LFS families RNA samples.

Using the best available instruments, supports and genetic techniques, we localized the non-*p53* LFS gene to a minimal locus interval on chromosome 1q23.3 in the non-*p53* Li-Fraumeni Syndrome (LFS) family used in our genetic mapping.

My second research project involves myotonic dystrophy (DM) disease. My part in the DM project are (1) to decipher the mechanism(s) by which the mutant (CCUG)_nDM2 RNA transcripts cause DM2 disease, and (2) to decipher the role and function(s) of aberrant spliced *ZNF9* mRNA transcripts in myotonic dystrophy type 2 (DM2) pathogenesis. For the DM2 project I also used several molecular biology and genetic techniques, such as (1) seeding in tissue culture both human and mouse myoblast cell lines, (2) isolating of DNA, RNA, and Protein from cell lines, (3) making cDNA from total RNA, (4) running western blot, (5) running PCR / Q-RT-PCR, (6) performing drug treatment on cell lines, (7) using total cDNA made from the drug treatment experiment to perform gene expression profiling, (8) performing data analysis, (9) performing cloning of DNA / cDNA into fluorescence or non-fluorescence tagged expression vectors, (10) performing transfection tagged DNA constructs into mammalian cells, (11) performing transformation in *E. coli* cells, (12) performing in situ fluorescence (IF) hybridization, and (13) using fluorescence microscopes (i.e. epifluorescence and deconvolution and others) to determine co-localization or interaction of proteins in both cultured human and mouse cell lines and mouse tissues.

Using the best available instruments, supports and genetic techniques, we showed that the mutant (CCTG)_n expansion causes abnormal expression of zinc finger protein 9 in Myotonic Dystrophy Type 2 (DM2).

I also participated in mentoring summer student that participated in research in Dr. Krahe's lab. In 2006, I mentored and supervised DM2 research project of a high school summer student, Mr. Nicholas Russell. He was a very brilliant student that kept in contact with me even after completing the summer research. Mr. Russell was admitted to Carnegie Mellon University in September 2006. In 2007, he did his summer program at Carnegie Mellon University and in 2008 he was accepted to the SMAT summer program at Baylor College of Medicine. I served as his reference mentor. In May 2010, Nicholas Russell graduated with a combined degree in bioengineering and mechanical engineering from Carnegie Mellon University.

2002-2005: Post-Doctoral Fellow, the UT-MD Anderson Cancer Center, Houston, Texas.

I worked on the physical mapping and the positional cloning of the non-*p53* Li-Fraumeni Syndrome (LFS) gene. We mapped the 3rd LFS locus to Human chromosome 1q23.3 by using several molecular genetic techniques, such as (1) genotyping non-*p53* LFS families DNA samples with microsatellite markers and SNPs array technology to generate genotyping data for linkage analysis, (2) searching the UCSC Genome Browser and other database for di, tri and tetra nucleotide repeats to design additional microsatellite primer sets, (3) using multiple available information that are published in journals to identify potential candidate genes in non-*p53* LFS locus minimal interval on chromosome 1q23.3., (4) performing direct sequencing of non-*p53* LFS families DNA samples to detect mutations in candidate genes, and (5) using RT-PCR to detect aberrant/alternative spliced cDNA in non-*p53* LFS families RNA samples.

1997-2000: Post-Doctoral Fellow and New Investigator, College of Medicine, University of Cincinnati, Cincinnati, Ohio.

My work involves identification of gene(s) involved in or associated with essential hypertension. I was part of the group that worked on essential hypertension research, and we showed that functional of single nucleotide polymorphisms (SNPs) in the alpha human epithelia sodium Channel (α -*hENaC*) isoform contributes to essential hypertension in the African American population by using several molecular genetic techniques, such as (1) direct sequencing of DNA samples of essential hypertensive African Americans to detect mutations (variants: SNPs) in candidate genes, (2) performing association studies of functional SNPs, and (3) performing electrophysiological studies of functional α -*hENaC* SNPs in *Xenopus* oocytes to infer the role of α -*hENaC* variants on sodium (Na⁺) ion conduction in the distal tubule of the kidneys.

I also participated in mentoring summer student that participated in research in Dr. Menon's lab. In summer 1999, I mentored and supervised the hypertension research project of a college student and a high school student in Dr. Anil Menon's lab.

1994-1997: Intramural Research Training Award (IRTA) Fellow, National Human Genome Research Institute (NHGRI), National Institutes of Health (NIH), Bethesda, Maryland.

I am a recipient of IRTA award at the NHGRI. I worked on the positional cloning of the *MEN1* gene and I was part of the group that identified and cloned the Multiple Endocrine Neoplasia Type 1 (*MEN1*) gene, and also, I showed that mutation in the *MEN1* gene causes *MEN1*_{Burin} cancer. Several different molecular genetic techniques were used to identify and clone the *MEN1* gene. The different molecular genetic techniques that were used to clone the *MEN1* gene are as follows, (1) screening high density human chromosome cosmids and BAC libraries by both hybridization and PCR to identify clones, (2) constructing a physical map (contig) of the *MEN1* locus, (3) identifying di, tri and tetra nucleotides repeats present in the clones to develop microsatellite markers (primers) used for linkage analysis and LOH analysis, (4) identifying recombination in affected families to reduce the genetic interval that harbors the putative gene, (5) using both cosmids and BAC clones DNA for exon trapping and screening high density human cDNA library to identify transcripts that were used to

construct a transcript map of the *MEN1* locus, (6) performing 5' -3' rapid amplification of cDNA end (5' -3' RACE), and (7) identifying candidate genes that were directly sequenced for mutations in *MEN1* families.

1991-1992: Research Assistant / Teaching Assistant, Texas Southern University, Houston, Texas.

I supervised both undergraduate and graduate student experiments in Dr. Edwards' lab. Also, I organized the lab journal clubs, and I was responsible for maintaining and supervising the daily operation of the lab, as well as maintaining equipments and ordering supplies. I also worked on the characterization of satellite repetitive DNA elements in the avian genome.

1989-1991: MBRS Fellow / Graduate Teaching Assistance, Texas Southern University, Houston Texas.

I engaged in research and I also attended scientific conferences, including MBRS conferences and I gave oral presentations. I worked on research project that study the effect of heavy metals on in vitro protein synthesis to infer that heavy metals, which are environmental toxicants that can cause several diseases that are detrimental to human health.

Additional Experience and Training: Through in-house departmental and interdepartmental trainings, workshop trainings and collaborations, I acquired additional experiences and learned to use several modern bio-techniques and biotechnological equipments, and biological software tools to mention a few, such as micro-array, exon/gene array and SNPs array technology, Pyrosequencing technology, genotyping, sequencing, in silico data mining, gene targeting DNA construct design, DNA Promoter methylation assays, NMD assays, histology and microbiology techniques, and scanning electron and fluorescence microscopes. Also, I attended grant writing classes to keep up with the requirements, changes and guidelines implemented by different funding agencies.

Publications

Olayinka Raheem, **Shodimu-Emmanuel Olufemi**, Linda L Bachinski, Anna Vihola, Mario Sirito, Jeanette Holmlund-Hampf, Hannu Haapasalo, Yi-Ping Li, Bjarne Udd, and Ralf Krahe. Mutant (CCTG)_n Expansion Causes Abnormal Expression of *Zinc Finger Protein 9* in Myotonic Dystrophy Type 2 (DM2). *The American Journal of Pathology*, Oct. 22. 2010. [Epub ahead of print].

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Steven T. Lott, Nanyue Chen, Dawn S. Chandler, Qifeng YanG, Luo Wang, Marivonne Rodriguez, Hongyan Xie, Seetharaman Balasenthil, Thomas A. Buchholz, Aysegül A. Sahin, Katrina Chung, Baili Zhang, **Shodimu-Emmanuel Olufemi**, Jinyun Chen, Henry

Adams, Vimia Band, Adel K El-Naggar, Marsha L. Frazier, Khandan Keyomarsi, Kelly K. Hunt, Subrata Sen, Bruce Haffty, Stephen M. Hewitt, Ralf Krahe and Ann McNeill Killary. DEAR1 Is a Dominant Regulator of Acinar Morphogenesis and an Independent Predictor of Local Recurrence-Free Survival in Early-Onset Breast Cancer. *Plos Medicine*, Vol. 5, Issue 5 May 2009.

S.D. Moore-Olufemi, J. Padalecki, **S.E. Olufemi**, H. Xue, D.H. Oliver, R.S. Radhakrishnan, S.J. Allen, F.A. Moore, R. Stewart, G.A. Laine, and C.S. Cox, Jr. Intestinal Edema: Effect of Enteral Feeding on Motility and Gene Expression. *Journal of Surgical Research*. 155: 283-292, 2009.

S.D. Moore-Olufemi, S. Lott, **S-E. Olufemi**, N. Sato, R. Kozar, F. Moore, R. Radhakrishnan, C. Cox and B. Kone. Transcription Profiling of Ischemic Preconditioning in Rat Intestine Following Ischemia / Reperfusion Injury. *Journal of the American College of Surgeon*, Vol. 203, Number 3 (Supplement) September 2006.

Linda L. Bachinski, **Shodimu-Emmanuel Olufemi**, Xiaojun Zhou, Chih-Chieh Wu, Linwah Yip, Sanjay Shete, Guillermina Lozano, Christopher I. Amos, Louise C. Strong and Ralf Krahe. Genetic Mapping of a Third Li-Fraumeni Syndrome Predisposition Locus to Human Chromosome 1q23. *Cancer Research*, 65: 427-431, 2005.

S. J. Marx, S. K. Agarwal, M. B. Kester, C. Heppner, Y. S. Kim, MR. Emmert-Buck, L. V. Debrlenko, I. A. Lubensky, Z. A. Huang, S. C. Guru, P. Manickam, **S-E. Olufemi**, M. C. Skarulis, J. L. Doppman, R. H. Alexander, L. A. Liotta, F. S. Collins, S. C. Chandrasekharappa, A. M. Spiegel, and A. L. Burns. Germline and Somatic Mutation of the Gene for Multiple Endocrine Neoplasia Type 1 (*MEN1*). *Journal of Internal Medicine*, 243: 447-453, 1998.

S. C. Guru, P. Manickam, J. S. Crabtree, **S-E. Olufemi**, S. K. Agarwal, L. V. Debrlenko, Z. A. Huang, I. A. Lubensky, M. B. Kester, Y. S. Kim, C. Heppner, J. M. Weismann, M. S. Boguski, Y. Wang, B. A. Roe, A. L. Burns, L. A. Liotta, A. M. Spiegel, M. MR. Emmert-Buck, S. J. Marx, F. S. Collins and S. C. Chandrasekharappa. Identification and Characterization of the Multiple Endocrine Neoplasia Type I (*MEN1*) Gene. *Journal of Internal Medicine*, 243: 433-439, 1998.

Shodimu-Emmanuel Olufemi, Jane S. Green, Pachiappan Manickam, Siradanahalli C. Guru, Sunita K. Agarwal, Mary Beth Kester, Qihan Dong, A. Lee Burns, Allen M. Spiegel, Stephen J. Marx and Francis S. Collins and Settara C. Chandrasekharappa. A Common Ancestral Mutation in the *MEN1* Gene Is Likely Responsible for the Prolactinoma Variant of *MEN1* (*MEN1_{Burin}*) in Four Kindred from Newfoundland. *Human Mutation*, 11: 264-269. 1998.

Sunita K. Agarwal, Larisa V. Debelenko, Mary Beth Kester, Siradanahalli C. Guru, Pachiappan Manickam, **Shodimu-Emmanuel Olufemi**, Monica C. Skarulis, Christina Heppner, Judy S. Crabtree, Irina A. Lubensky, Zhengping Zhuang, Young S. Kim, Settara C. Chandrasekharappa, Francis S. Collins, Lance A. Liotta, Allen M. Spiegel, A. Lee Burns, Michael R. Emmert-Buck and Stephen J. Marx. Analysis of Recurrent Germline Mutations in the *MEN1* Gene Encountered in Apparently Unrelated Families. *Human Mutation*, 12: 75-82, 1998.

Michael R. Emmert-Buck, Larisa V. Debelenko, Sunita K. Agarwal, Mary Beth Kester, Pachiappan Manickam, Zhengping Zhuang, Siradanahalli C. Guru, **Shodimu-Emmanuel Olufemi**, A. Lee Burns, Settara C. Chandrasekharappa, Irina A. Lubensky, Lance A. Liotta, Monica C. Skarulis, Allen M. Spiegel, Stephen J. Marx and Francis S. Collins.

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Zhengping Zhuang, Shereen Z. Ezzat, Alexander O. Vortmeyer, Robert Weil, Edward H. Oldfield, Won-Sang Park, Svetlana Pack, Steve Huang, Sunita K. Agarwal, Siradanahalli C. Guru, Pachiappan Manickam, Larisa V. Debelenko, Mary Beth Kester, **Shodimu-Emmanuel Olufemi**, Christina Heppner, Judy S. Crabtree, A. Lee Burns, Allen M. Spiegel, Stephen J. Marx, Settara C. Chandrasekharappa, Francis S. Collins, Michael R. Emmert-Buck, Lance A. Liotta, Sylvia L. Asa and Irina A. Lubensky. Mutations of the *MEN1* Tumor Suppressor Gene in Pituitary Tumors. *Cancer Research*, 57: 5446-5451, 1997.

Larisa V. Debelenko, Elisabeth Brambilla, Sunita K. Agarwal, Jennifer I. Swalwell, Mary Beth Kester, Irina A. Lubensky, Zhengping Zhuang, Siradanahalli C. Guru, Pachiappan Manickam, **Shodimu-Emmanuel Olufemi**, Settara C. Chandrasekharappa, Judy S. Crabtree, Christina Heppner, A. Lee Burns, Allen M. Spiegel, Stephen J. Marx, Lance A. Liotta, Francis S. Collins, William D. Travis and Michael R. Emmert-Buck. Identification of *MEN1* Gene Mutations in Sporadic Carcinoid Tumors of the Lung. *Human Molecular Genetics*, 6: 2285-2290, 1997.

Zhengping Zhuang, Alexander O. Vortmeyer, Svetlana Pack, Steve Huang, Thu A. Pham, Chaoyu Wang, Won-Sang Park, Sunita K. Agarwal, Larisa V. Debelenko, Mary Beth Kester, Siradanahalli C. Guru, Pachiappan Manickam, **Shodimu-Emmanuel Olufemi**, Fang Yu, Christina Heppner, Judy S. Crabtree, Monica C. Skarulis, David J. Venzon, Michael R. Emmert-Buck, Allen M. Spiegel, Settara C. Chandrasekharappa, Francis S. Collins, A. Lee Burns, Stephen J. Marx, Robert T. Jensen, Lance A. Liotta, and Irina A. Lubensky. Somatic Mutations of the *MEN1* Tumor Suppressor Gene in Sporadic Gastrinomas and Insulinomas. *Cancer Research*, 57: 4682-4686, 1997.

Michael R. Emmert-Buck, Irina A. Lubensky, Qihan Dong, Pachiappan Manickam, Siradanahalli C. Guru, Mary Beth Kester, **Shodimu-Emmanuel Olufemi**, Sunita Agarwal, A. Lee Burns, Allen M. Spiegel, Francis S. Collins, Stephen J. Marx, Zhengping Zhuang, Lance A. Liotta, Settara C. Chandrasekharappa and Larisa V. Debelenko. Localization of the Multiple Endocrine Neoplasia Type 1 (*MEN1*) Gene Based on Tumor Loss of Heterozygosity Analysis. *Cancer Research*, 57: 1855-1858, 1997.

Christina Heppner, Mary Beth Kester, Sunita K. Agarwal, Larisa V. Debelenk, Michael R. Emmert-Buck, Siradanahalli C. Guru, Pachiappan Manickam, **Shodimu-Emmanuel Olufemi**, Monica C. Skarulis, John L. Doppman, Richard H. Alexander, Young S. Kim, Suraj K. Saggur, Irina A. Lubensky, Zhengping Zhuang, Lance A. Liotta, Settara C. Chandrasekharappa, Francis S. Collins, Allen M. Spiegel, A. Lee Burns and Stephen J. Marx. Somatic Mutation of the *MEN1* Gene in Parathyroid Tumors. *Nature Genetics*, 16: 375-378, 1997.

Pachiappan Manickam, Siradanahalli C. Guru, Larisa V. Debelenko, Sunita K. Agarwal, **Shodimu-Emmanuel Olufemi**, Jane M. Weisemann, Mark S. Boguski, Judy S. Crabtree, Yingping Wang, Bruce A. Roe, Irina A. Lubensky, Zhengping Zhuang, Mary Beth Kester, A. Lee Burns, Allen M. Spiegel, Stephen J. Marx, Lance A. Liotta, Michael R. Emmert-Buck, Francis S. Collins and Settara C. Chandrasekharappa. Eighteen New Polymorphic Markers in the Multiple Endocrine Neoplasia Type 1 (*MEN1*) Region. *American Journal of Human Genetics*, 101: 102-108, 1997.

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Siradanahalli C. Guru, **Shodimu-Emmanuel Olufemi**, Pachiappan Manickam, Christiano Cummings, Linn M. Gieser, Brian L. Pike, Michael L. Bittner, Yuan Jiang, A. Craig Chinault, Norma J. Nowak, Anne Brzozowska, Judy S. Crabtree, Yingping Wang, Bruce A. Roe, Jane M. Weisemann, Mark S. Boguski, Sunita K. Agarwal, A. Lee Burns, Allen M. Spiegel, Stephen J. Marx, Wendy L. Flejter, Pieter J. de Jong, Francis S. Collins and Settara C. Chandrasekharappa. A 2.8 - Mb Clone Contig of the Multiple Endocrine Neoplasia Type 1 (*MEN1*) Region at 11q13. *Genomics*, 42: 436-445, 1997.

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Abstracts

L'Anne Bell and **Shodimu-Emmanuel Olufemi**. Cloning of hsa-miR-3613 into pmR-ZsGreen1 Expression Vector and Its Expression in PC-3 Cells. *COSET Summer Undergraduate Research Program*, 2016.

Leandra Stewart, **Shodimu-Emmanuel Olufemi** and Desirée Jackson. Effects of α -Solanine on Protein Synthesis in Stably Transfected BEAS-2B Cells Expressing pmR-ZsGreen1 (GFP). *COSET Summer Undergraduate Research Program*, 2016.

Ariam Abraham and **Shodimu-Emmanuel Olufemi**. Cloning and expression of pre-miRNA fragments in TM3 cells. *COST Summer Undergraduate Research Program and Proceedings of Summer Undergraduate Research Program, 2013*.

Olayinka Raheem, **Shodimu-Emmanuel Olufemi**, Anna Naukkarinen, Mario Sirito, Linda L Bachinski, Jeanette Holmlund-Hampf, Tiina Suominen, Hannu Haapasalo, Ralf Krahe, and Bjarne Udd. Abnormal Expression of Zinc Finger 9 (ZNF9) mRNA and Protein in Myotonic Dystrophy Type 2 (DM2). *7th International Myotonic Dystrophy Consortium Meeting, Wurzburg, Germany, September 9-12, 2009*.

Anna Vihola, Mario Sirito, Linda L. Bachinski, **Shodimu-Emmanuel Olufemi**, Olayinka Raheem, Tina Suominen, Bjarne Udd and Ralf Krahe. Differences in Aberrant Expression and Splicing of Genes Involved in Ca²⁺ Metabolism Between Myotonic Dystrophy Type 2 (DM2) and Type 1 (DM1). *World Muscle Society, 12th International Congress, Messina-Sicily, Italy, October 17-20, 2007*.

L. Bachinski, K. A. Baggerly, S. Tsavachidis, **S-E. Olufemi**, M. Sirito, J. Gamez, G. Bassez, B. Eymard, T. Ashizawa, J. Mendell, B. Udd and R. Krahe. Global Profiling of Aberrant Splicing in Myotonic Dystrophy Using the Affymetrix Human Exon Array. *The American Society of Human Genetics, 56TH Annual Meeting, New Orleans, Louisiana, October 9-13, 2006*.

Shohrae Hajibashi, Linda Bachinski, Mario Sirito, **Shodimu-Emmanuel Olufemi**, Spiridon Tsavachidis, Keith A. Baggerly and Ralf Krahe. Molecular Genetic Characterization of Aberrantly Spliced Candidate Effector Genes in Myotonic Dystrophies. *2006 UT-MDACC Gene and Development Spring Retreat, Port Aransas, Texas, March 24-26, 2006*.

E.W. Daw, C.C. Wu, **S-E. Olufemi**, J. Ma, L.L. Bachinski, C.I. Amos, R. Krahe, and L.C. Strong. Oligogenic Segregation and Linkage Analysis of Non-p53 Li-Fraumeni Syndrome Families. *The American Society of Human Genetics, 55^H Annual Meeting, Salt Lake City, Utah, October 26-29, 2005*.

Linda L. Bachinski, **Shodimu-Emmanuel Olufemi**, Xiaojun Zhou, ChihiChieh Wu, Sanjay Shete, Guillermina Lozano, Christopher I. Amos, Louse C. Strong and Ralf Krahe. Genetic Mapping of a Third Li-Fraumeni Syndrome (LFS) Predisposition Locus to Human Chromosome 1q23. *The American Society of Human Genetics, 54TH Annual Meeting, Toronto, Canada, October 26-30, 2004*.

S.C. Guru, P. Manickam, Q. Dong, **S-E. Olufemi**, M. Skarulis, A.M. Spiegel, S.J. Marx, F.S. Collins and C.S. Chandrasekharappa. The MLK-3 Gene Maps to the *MEN1* Interval at 11q13 and Is a Candidate for *MEN1*. *HUGO'S Human Genome Meeting, Heidelberg, Germany. March 22-24, 1996. Abstract #180*.

S.C. Guru, P. Manickam, Q. Dong, **S-E. Olufemi**, C. Cummings, P. Dejong, A. C. Chinault, F.S. Collins, and S.C. Chandrasekharappa. YAC/PAC/P1 Contig and Transcription Map of the *MEN1* Region at 11q13. *NCGHR Scientific Retreat, Airlie Center, VA. December 12, 1995. Abstract #A37*.

Teaching Responsibility

Undergraduate Level:

Non-majors:

BIOL 143 Survey of Life Science

Biology Majors:

BIOL 111 Biological Sciences Lab I

BIOL 112 Biological Sciences Lab II

BIOL 131 Biological Sciences I

BIOL 132 Biological Sciences II

BIOL 338 Genetics

BIOL 401 Undergraduate Research

Undergraduate / Graduate Level:

BIOL 439 Principle of Biology

BIOL 450 Molecular Genetics

BIOL 460 Biostatistics

Graduate Level:

BIOL 710 Microbial Genetics

BIOL 715 Advance Human Genetics

BIOL 636 Endocrinology

BIOL 526 Topics in Biology

BIOL 861 Research Problems I

BIOL 862 Research Problems II

ES 925 Research and Dissertation

Graduates:

Mentees:

Angel Ryals, MS Biology (May 2014)

Fatimah Alhassan, MS Biology (May 2014)

Imani Bethel, MS Biology (May 2014)

Olusegun Ogunniyi, MS Biology (May 2014)

Hoda Eltayeb, MS Biology (May 2015)

Jennifer Mosley, MS Biology (May 2015)

Arete John Eigbe, MS Biology (May 2016)

Tommie Johnson, MS Biology (May 2016)

Kadeshia Earl, MS Biology (May 2018)

Graduate Students:

Mentees:

Hoda Eltayeb (PhD candidate student)

Tommie Johnson (PhD candidate student)

Graduate Student Committees:

Samrawit Yeshitla, MS (May 2012)

Sedigheh Heydari, MS (May 2012)

Dominique Sapp, MS (December 2012)

Melvedina Mansoor, MS (December 2012)

Kursten M. Berry, MS (December 2013)

Evil Okoro, MS (May 2015)

Ivory Ellis, MS (May 2015)

Hadijatt Audu, MS (August 2015)

Taofeek Olonode, PhD (August 2015)

Samrawit Yeshitla, PhD (December 2015)

Paris Henry, MS (May 2016)

Segun Adelanke, MS (August 2016)

Loretta Olamigoke, PhD (May 2017)

Ademola Daniel Adejayan, MS (December 2017)

Vidyakiran Polaki, MS (December 2017)

Te'lisa Johnson Williams, MS (December 2017)

George Glasgow, PhD (May 2018)

Summer Undergraduate Research Program (SURP) at COSET:

Mentees:

Ariam Abraham, (BS; 2013)

L'Anne Bell, (BS candidate student; 2016)

Blessing Ezeudu, (BS candidate student; 2017)

Ogechi Anene, (BS candidate student; 2018)

University Committees:

- COSET Research Committee 2011-Present
- COSET Suspension & Re-Admission 2015-2017
- COSET Assessment Committee 2011-2014

University Community Interaction:

- TSU COSET Faculty Panel Discussion: COSET Research Week 2013

Departmental Committees:

- Assessment Committee 2011-Present
- Graduate Committee 2011-Present
- Graduate Coordinator 2015-Present

Honors and Awards:

- Intramural Research Training Award (IRTA), NHGRI, NIH 1994-1997
- Minority Biomedical Research Support (MBRS) 1989-1991

Grantsmanship:

Funded:

- TSU Research Center Seed Grant Award (Funded: \$8,500) 2012-2013
“*An Alternative Method for Identification of Non-Coding RNAs (ncRNAs) in Cancer.*” (Requested: \$15,000) *Funded: \$8,500*

Not Funded:

- TSU Research Center Seed Grant Award (Not Funded) Nov. 2011

“An Alternative Method for Identification of Non-Coding RNAs (ncRNAs) in Cancer.”

(Requested: \$25,000) Not Funded

- NIH R21 Sept. 2011
“Identification and Characterization of Cancer Associated Non-Coding RNAs (ncRNAs) Using Microsatellite-genotyping Based PCR Method.”
(Requested: \$402,500) Not Funded
- NIH RO1 Feb. 2012
“Characterization of Missense Coding Single Nucleotide Polymorphisms (cSNPs) in the Renin-Angiotensinogen System (RAS) Pathway at Cellular Level.”
(Requested: \$1,006,000) Not Funded
- NIH RO1 Aug. 2012
“The Role of Missensed-cSNPs Found in the BMP-4 and BMP-7 in the Manifestation of Fibrosis.”
(Requested: \$1,232,500) Not Funded
- NSF 15-555 July 2014
“Characterization of hsa-miRNAs that Regulate Cell Cycle Regulator PPP6C.”
(Requested: \$1,160,019) Not Funded
- NIH R21 Oct. 2014
“miRNA An Upstream Regulator of Alternative Splicing, NMD and Apoptosis.”
(Requested: \$425,395) Not Funded
- NSF 13-510 Nov. 2015
“Development of cell model systems for the assessment of antioxidants impacts following exposure to multiple toxicants.”
(Requested: \$ 4,908,524) Not Funded
Principal Investigator Desirée A. Jackson, PhD
Co-Principal Investigator Hector Miranda, PhD
Co-Principal Investigator Audrey Player, PhD
Co-Principal Investigator Ayodotun Sodipe, PhD
Co-Principal Investigator Shodimu Emmanuel Olufemi, PhD
Note: The NSF 13-510 resubmitted in November 2016