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Education

- **Ph. D., Cell Biology, with concentrations in Molecular Biology and Biotechnology, January 2003**, University of Virginia, Charlottesville, VA
- **BS, Biology, May 1997 - Virginia Union University**, Richmond, VA

Employment History

- **Current- Assistant Professor of Biology, North Carolina A&T State University, Greensboro NC**
- **2006- 2007-** Assistant Professor of Biology, Fisk University, Nashville TN
- **2003- 2005-** Research Associate, University of Virginia, Department of Pathology, Charlottesville, VA
- **2001- 2005-** Adjunct Instructor, Piedmont Virginia Community College, Charlottesville, VA
- **1997- 2003-** Graduate Research Assistant, University of Virginia, Charlottesville, VA

Research Experience

- **Identified novel small molecule inhibitors that prevent glioblastoma growth and Invasion**
- **The work mentioned above led to 5 publications, 2 fellowships and active collaborations with 2 international pharmaceutical companies**
- Established and implemented standard operating procedures for siRNA transfection in glioblastoma cell lines
- Trained over 8 coworkers ranging from lab technicians to surgical fellows in basic cellular and molecular biology techniques as well as aseptic tissue culture techniques
- Investigated regulatory role of exogenous amino acids during trophoblast cell development
- Developed new video microscopy protocols which resulted in publication quality images
- **Graduate research studies led to 2 peer-reviewed publications**

Accepted Publications and Published Abstracts

- Williams, J., Lewis-Alleyne, L., Solomon, M., Long, N., Johnson, R., Vital, J., Leiwis, N., Cagle, P., **Martin, P.**, VanDerveer, D., Meyer, K., Hong, Y., Beckford, F., and Holder, A. A comparative study of *in vitro* studies of azo- and non-azo complexes of tin(IV) complexes against tumor cell lines. *Submitted, Polyhedron May 2010.*
- Frye, E and **Martin, P.** The Effects of Maternal Systemic Lupus Erythematosus on the Developing Fetus. **Accepted for publication 8/2010**, *Explorations* expected publication date 10/2010.
- McNair, P., Goketpe, I., **Martin, P.** (2010) Rosehip (*Rosa canina*) extracts prevent glioblastoma cell proliferation. *In preparation*
- Raines, T., Gibo, D. Debinski, W. and **Martin, P.** The regulation of CD44 expression in human glioblastoma cells. *In preparation*
- Smith, M., Akman, S. Franks, M. and **Martin, P.** Establishing a Cancer Education and Research Partnership (CERP) between a Minority Serving Institution and NCI-designated Comprehensive Cancer Center. *In preparation*

- Kelkar, V. and **Martin, P.** Increasing student performance in an entry level biology course at a Minority Serving institution, by implementing critical thinking modules. *In preparation*
- Bond, S., McNair, P., Xhao, A., Hussaini, I. and **Martin, P.** PKC- α regulates the adhesion of glioma cells to hyaluronic acid via a rapamycin-dependent pathway. *In preparation*
- **Martin, P.**, Aeder, S., Chrestensen, C., Sturgill, T. and Hussaini, I. Expression of PKC- η reduces rapamycin efficacy in inhibiting glioblastoma mitogenic response (2007) **Oncogene** 26(3):407-14.
- Uht, R., Amos, S., **Martin, P.**, Riggan, A. and Hussaini, I. The protein kinase C- η isoform induces proliferation in glioblastoma cell lines through an ERK/Elk-1 pathway. (2007) **Oncogene** 26(20): 2885-93
- **Martin, P** and Hussaini, I. PKC- η as a therapeutic target in glioblastoma multiforme. Expert Opinion on Therapeutic Targets. (2005), **Expert Opinion on Therapeutic Targets** 9, 299-313.
- Amos S, **Martin P.**, Polar G., Parsons S. And Hussaini, I. Phorbol 12-myristate 13-acetate induces epidermal growth factor receptor transactivation via protein kinase C delta/c-Src pathways in glioblastoma cells. (2005) **J. of Biological Chemistry** 280, 7729-7738.
- Aeder, S., **Martin, P.**, Soh, J. and Hussaini, I. PKC η mediates glioblastoma cell proliferation through the AKT/mTOR signaling pathway. (2004) **Oncogene** 56, 9062-9069.
- **Martin, P.**, Sutherland, A. and Van Winkle, L.J. Amino acid transport regulates blastocyst implantation. (2003) **Biology of Reproduction** 69, 1101-1108.
- **Martin, P.** and Sutherland, A. Exogenous amino acids regulate trophoblast differentiation in the mouse blastocyst through an mTOR pathway. (2001) **Developmental Biology** 240, 182-193.
- Hewitt, R.E., McMarlin, A., Kleiner, D., Wertso, R., **Martin, P.**, Tsoskas, M., Stamp, G. H., and Stetler-Stevenson, W. (2000) Validation of a model of colon cancer progression. **J. of Pathology** 192, 446-454.

Published abstracts

- McNair, P., Goketpe, I., **Martin, P.** (2010) Rosehip (*Rosa canina*) extracts prevent glioblastoma cell proliferation. American Association of Cancer Research, Annual Conference April, 2010.
- Raines, T., Gibo, D. Debinski, W. and **Martin, P.** (2010) The regulation of CD44 expression in human glioblastoma cells. American Association of Cancer Research, Annual Conference April, 2010.
- Bond, S, Brailsford, A., Hussaini, I **Martin, P.** (2009) Inhibition of the p70S6K prevent glioblastoma cell migration. American Association of Cancer Research, Special Conference on Glioblastoma, December, 2009.
- Smith, M., Akman, S. Franks, M. and **Martin, P.** (2009) Establishing a Cancer Education and Research Partnership (CERP) between a Minority Serving Institution and NCI-designated Comprehensive Cancer Center.
- **Martin, P.** and Hussaini, I. (2008) North Carolina A and T State University and the University of Virginia. Inhibition of glioblastoma cell growth by a Raf small molecule inhibitor. North Carolina Academy of Sciences Annual Meeting, Greensboro, NC, March 2008.
- **Martin, P.** and Hussaini, I. (2003) PMA treatment of U-251MG glioblastoma cells increases cell proliferation and reduces the efficacy of rapamycin treatment. *Neuro-Oncology*, volume 5, issue 4. Abstracts from the Society of Neuro-Oncology Eighth Annual Meeting.
- **Martin, P.**, Sloan, J., Mager, S. and Sutherland, A.E. (2002) Regulation of trophoblast cell differentiation by amino acid transporter function. *Molecular Biology of the Cell* 13(suppl.), 254a. American Society for Cell Biology

- **Martin, P.**, and Sutherland, A.E. (2002) Exogenous amino acids regulate trophectoderm differentiation in the mouse blastocyst through an mTOR dependent pathway. *Developmental Biology* 247, 408-438, abstract number 78.
- **Martin, P.**, Sloan, J., Mager, S. and Sutherland, A.E. (2001) Inhibition of amino acid transport prevents trophoblast cell outgrowth formation in mouse blastocysts. *Molecular Biology of the Cell* 12(suppl.), 372a. American Society for Cell Biology

Education and Related Experience

- **Courses Instructed- General Biology (lecture and laboratory), Genetic Principles (lecture and laboratory), Molecular Cell Biology (lecture and laboratory), Developmental Biology (lecture and laboratory) and Undergraduate Research**
- **Awarded over \$200,000 in grant funding in 2008**
- **Awarded over \$200,000 in grant funding in 2006**
- Received an average score of 4.3 out of 5.0 from end of semester student evaluations
- Provided hands on experimentation with SDS-PAGE, western blotting, DNA fingerprinting and bacterial cell transfection
- Advised over 200 students regarding academic direction and scheduling as well as career plans and post graduate studies
- **Designed curriculum for BIO 251: Introduction to Protein Biotechnology Methods, curriculum has been used for 9 years**

Grantsmanship and Project Management

- **National Science Foundation, Principal Investigator (\$14,000; 3/2009 5/2010)**
Genome Consortium for Active Teaching (GCAT); Incorporating Microarray education and technology into the undergraduate and graduate Curricula
- **National Institutes of Health, Pilot-Project Principal Investigator (\$220,000; 9/2008 8/2012)** - Comprehensive Cancer Center Grant (In Collaboration with Wake Forest University/Baptist Medical Center) "Fra-1 expression regulates CD44 and c-Met expression in glioblastoma cells"
- **National Institutes of Health, Pilot-Project Principal Investigator (\$125,000; 10/2008 6/2013)** – Research Infrastructure at Minority Institutions (RIMI) "Investigating the Regulation of Invasive Migration in Breast Cancers that Afflict African Americans"
- **Department of Education, Principal Investigator (\$180,015; 10/2006 – 8/2007)** - Minority Science and Engineering Improvement Program, "Establishment of a Biotechnology Teaching Laboratory and Associated Laboratory Curriculum"
- **Congressional Black Caucus, Principal Investigator (\$25,000; 9/2006- 5/2007)** - Anti-smoking Education Initiative Funding (DROP Squad), "Utilizing Biological Experiments to Demonstrate the Harmful Effects of Cigarette Smoke to College Students"
- **National Science Foundation, Principal Investigator (\$2,000; 3/2006)** - Faculty travel award to attend grant working workshop, Albuquerque, New Mexico

Pending Grant(s):

- **Amgen Foundation, Principal Investigator (\$250,000; 4/2010; under review)**
Establishment of a Cancer Biotechnology Education and Learning Laboratory (C-BELL)

- **Department of Defense, Principal Investigator (\$1,500,000; 5/2010; under review)**
Developing a **B**reast **C**ancer **R**esearch and **E**ducation **A**mbassador **P**rogram (B-CREAP) at a Research Intensive Historically Black Institution.

Project Management

- **HBCU Wellness Initiative, Project Director, Fisk University (\$271,813; 11/2006- 8/2007) –**
Tennessee State Legislature funded initiative to increase health awareness in underserved communities

Invited Presentations

- **College of Arts and Sciences Invited Colloquium Speaker: (4/2009)**
North Carolina A and T State University, Greensboro, NC
- **Department of Biology Seminar Speaker: (3/2009)**
University of North Carolina-Greensboro, Greensboro, NC
- **Invited Speaker: North Carolina Academy of Science Annual Meeting (3/2008)**
Larry Campbell (Director of NC OPT-ED), Greensboro, NC
- **Invited Judge: Ronald McNair Annual Research Symposium (2/2008)**
North Carolina A and T State University, Greensboro, NC
- **Invited Speaker: North Carolina Alliance to Create Opportunity through Education (OPT-ED) (10/2007)**
Larry Campbell (Director of NC OPT-ED), Greensboro, NC
- **Department of Pharmacology, Meharry Medical College (4/2006)**
Delivered weekly Research in Progress talk entitled "The regulation of rapamycin insensitive glioblastoma proliferation"

Professional Development

- **American Society of Cell Biology, Junior Faculty Development Workshop (6/2009) –**
Received Travel Grant, Funding provided by NIGMS Division at NIH
- **University of Kentucky Grant Writing Workshop (5/2009) –** Invited and attended grant writing workshop for Minority Serving Institute Faculty members. Funding provided by MORE Division at NIH
- **University American Institute of Biological Sciences, Ad hoc reviewer 4/2009) –**
Participated in review panel for nanobiology-based grants
- **Genome Consortium for Active Teaching (GCAT) (7/2008) –** Attended GCAT workshop hosted by Davidson College and Hampton University.
- **NSF Review Panel (12/2007) –** Participated in Louis Stokes Alliance for Minority Participation (LSAMP) review panel.
- **Grants 101, Tennessee State University (11/2006) –** Attended Grant Writing Workshop
- **NSF Grant Writing Workshop, Albuquerque, NM (8/2006) –** Attended NSF Research Initiation Grant writing workshop for prospective grantees

Mentoring Activities

- Currently Mentoring 3 MS level students and 3 BS level students in my laboratory
- Recent Graduate student will graduate (6-2010) and will begin PhD program at University of Virginia, School of Medicine (8-2010)
- **Graduate Student was awarded "Graduate Student of the Year" by NCATSU, College of Arts and Sciences, (12-2009)**
- Current graduate students have been awarded 3 travel fellowships (American Society of Cell Biology and American Association of Cancer Research)
- **Current graduate Student was awarded "Best Poster Presentation" in the doctoral student category by the Minority Affairs Committee at the American Society for Cell Biology Annual Meeting (12-2009)**

- Undergraduate student research assistant earned travel fellowship to attend “National Honor Students Research Conference” (11-2009)

Awards and Honors

- **Best Faculty Presentation, National Ronald McNair Honor Symposium (2009)**
- **UNCF/MERCK Postdoctoral Fellow (2004-2005)**
- **Selected as American Psychological Association, Neuroscience Research Fellow (2004)**
- Keystone Symposium, Pathobiology of Cancer Workshop, Travel Fellowship (2003)
- Minority Access to Research Careers Scholar (MARC, NIH), Virginia Union University (95-97)

Professional Affiliations

- **ASSOCIATE MEMBER, Comprehensive Cancer Center, Wake Forest University Baptist Medical Center (11/2008- present)**
- North Carolina Academy of the Sciences (2008- present)
- Editorial Advisory Board Recent Patents on Anti-Cancer Drug Discovery (2005- 2007)
- Editorial Advisory Board Recent Patents on CNS Drug Discovery (2005- 2007)
- American Association for Cancer Research (2003- present)
- American Society for Cell Biology (1999- present)