

Phyllis Freeman, Ph.D.

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EMPLOYMENT

Visiting Associate Professor, Department of Pharmacology, Vanderbilt University, 2013-2015

Adjunct Associate Professor, Department of Pharmacology, Vanderbilt University, 2012

Academic Discipline Coordinator, Biology, Fisk University, 2010-present

Associate Professor, Department of Biology, Fisk University, 1997-present

Assistant Professor, Department of Biology, Fisk University, 1993-1997

ACADEMIC RECORD

Ph.D. (Molecular Parasitology) 1993, Meharry Medical College, Nashville, Tennessee

Thesis: Identification and Characterization of Epidermal Growth Factor Receptors on

Trypanosoma cruzi Amasigotes. Division of Biomedical Sciences

B.S. (Chemistry) 1986, Fisk University

Certification (HIV/AIDS Educator) 1998, American Red Cross, Nashville Chapter

PROFESSIONAL ACTIVITIES

National Science Foundation HBCU-UP Research Initiation Supplemental Award. Genetic Evaluation of Structural Determinants of Dopamine Transporters (2015-2017), **Proposal Number: 1505176**

Focal Point: The purchase of a Nikon Wide-field Inverted Fluorescent Microscope for the visualization of structural features that underlie dopamine transporter function and integrated regulatory signals used to achieve appropriate motor-sensory activity in *C. elegans* Million Mutation missense variants.

National Science Foundation Targeted Infusion Project. Infusing Quantitative Biology Methods into Cognate and Upper Division Courses: Enhancement of the Life Sciences Curriculum at Fisk University (2016-2019), **Proposal Number 1623680.** Principal Investigator: Steven Morgan, Ph.D. (Physics); Co- Principal Investigators: **Phyllis Freeman, Ph.D.** (Biology), Steven Damo, Ph.D. (Chemistry)

Focal Point: The integration of physical science concepts into the biological science curriculum through the development of a biophysics class for the major and the infusion of research modules into upper division courses.

Minority Serving Institution Science, Technology, Engineering and Mathematics Research and Development Consortium (MSRDC) Consortium. Contract Number: 2589 (2016-2017). Modeling Organophosphate Toxicity in *C. elegans* through a Scalable Combined *In vivo* and Silico Approach. DOI_W91. Principal Investigator: Brian Nelms, Ph.D., Associate Professor, Biology, Fisk University; Co-Principal Investigator: Richard Mu, Ph.D. (Physics); *Interdisciplinary Research Team:* **Phyllis Freeman, Ph.D. (Biology)**, Steven Morgan, Ph.D. (Physics), Sajid Hussain, Ph.D. and Lei Qian, Ph.D. (Computer Science) and Qingxia Li (Mathematics)

Focal Point: The development of an efficient *in vivo* toxicological screening system to test the acute toxicity of organophosphates using *C. elegans* as the model organism of choice. The resulting datasets will be used to provide computational and mathematical predictions about the effects of novel organophosphates with extendibility to other chemicals. The platform and subsequent tests will be developed with scalability in mind, working on prototype microfluidics (“worms-on-a-chip”) solutions in parallel with “proof-of-concept” designs for the general work flow and data acquisition of multiple relevant outputs.

National Science Foundation HBCU-UP Research Initiation Award. Genetic Evaluation of Structural Determinants of Dopamine Transporters (2015-2017), **Proposal Number: 1505176**

Focal Point: Use of *C. elegans* Million Mutation missense variants to reveal structural features that underlie dopamine transporter function and integrate regulatory signals to achieve appropriate motor-sensory activity *in vivo*.

National Institute of Mental Health Diversity Supplement (2013-2015) , Grant Number: 3R01MH095044 - 01A1; Principal Investigator: Randy D. Blakely, Ph.D., Alan D. Bass Professor of Pharmacology and Professor of Psychiatry, Vanderbilt University School of Medicine, Director, Vanderbilt/NIMH Silvio O. Conte Center for Neuroscience Research.

Focal Point: The funded project that will support a robust, forward genetic approach to identify and characterize novel presynaptic regulators of DA signaling using the powerful model system *Caenorhabditis elegans*. The Blakely laboratory has an advance screen for animals that demonstrate DA-dependent SWIP, thereby identifying and characterizing novel genes acting presynaptically to (1) regulate DA release and reuptake, (2) localize their mode of contribution to DA signaling, and (3) initiate an analysis of conserved vertebrate homologs. The project provides an outstanding opportunity to pursue research of significant mental health relevance in the context of a powerful model that can be applied at my home university to pursue independent research.

AMERICAN COUNCIL ON EDUCATION, 2005-06, BUSH-HEWLETT GRANT

HOST INSTITUTION: SEWANEE: THE UNIVERSITY OF THE SOUTH, SEWANEE, TENNESSEE

Focal Points: SACS; Assessment of Academic Programs, and University Governance, Policies and Procedures.

PUBLICATIONS AND MANUSCRIPTS

Robinson, S. Hardaway, J.A., Hardie, S., Wright, J., Glynn, R., Birmingham, D., Han, Q., Sturgeon, S., Freeman, P., and Blakely, R., Structural Determinants of the *C. elegans* Dopamine Transporter Dictating In Vivo Axonal Export and Synaptic Localization, *Molecular and Cellular Neuroscience*. 78 (2017) 41-51.

Robinson, S.B., Hardaway, J.A. Hardaway, Hardie, S.L., Wright, J., **Freeman, P.**, Glynn, R.M., Sturgeon, S.M., and Blakely, R.D. A novel motif associated with SEC24 binding supports synaptic localization of the dopamine transporter *in vivo*, *manuscript in preparation*

P. Freeman-Junior⁺, P. A. McCarroll⁺, K. McCall⁺, T. Crenshaw⁺⁺, K.A. Mimms⁺, J. Rogers⁺, and W.E. Lu⁺⁺. *High Resolution Analysis of Prokaryotic Morphogenetic Responses to Stress Induction Imaged by Atomic Force Microscopy*. Departments of Biology⁺ and Physics⁺⁺, Beta Kappa Chi Journal, 2006.

McCall, K., McCarroll, P., Lu, W.E., and Freeman-Junior, P., *Atomic Force Microscope Analysis of Bacillus Stearothermophilus*, Fisk University, Nashville, Tennessee, Annual Proceedings of the National Association for Equal Opportunity in Higher Education, 2003.

Ghansah, TJ, Ager EC, Freeman-Junior P, Villalta F, Lima, MF. Epidermal growth factor binds to a receptor on *Trypanosoma cruzi* amastigotes inducing signal transduction events and cell proliferation, *J Eukaryotic Microbiology*, 2002 Sep-Oct; 49(5):383-90.

PUBLISHED ABSTRACTS

Freeman, P., Jackson, E.J., Odiase, P.O., Monroe, B., Wright, W.W., Elie, C.D., Eugene, A., Snarrenburg, C.L., Wright, J., Sturgeon, S.M., Robinson, B.B, and Blakely, R.D., Parkinson's Disease and The Tale of Two SNPs: An Interdisciplinary Approach. 42nd Annual Mid-South Sociological Association Conference, North Charleston, SC, 2016.

Freeman, P., Jackson, E.J., Odiase, P.O., Monroe, B., Wright, W.W., Elie, C.D., Eugene, A., Snarrenburg, C.L., Wright, J., Sturgeon, S.M., Robinson, B.B, and Blakely, R.D., A Tale of Two SNPs: Genetic Analysis of the Dopamine Transporter Structure and Function in DAT-1 Coding Variants Derived from the *C. elegans* Million Mutation Project, Genetics Society of America, The Allied Genetics Conference, 2016.

Robinson, S.B., Hardaway, A.J., Sturgeon, S., Popay, T., Birmingham, D.B., **Freeman, P.**, and Randy D. Blakely, R.D. Truncation of the RUNX transcription factor RNT-1 disrupts dopaminergic signaling in *Caenorhabditis elegans*. Genetics Society of America, The Allied Genetics Conference, 2016.

Refal, O, Hardaway, J. A, Robinson, S, Snarrenberg, C.L., Hardie, S.L., **Freeman P.**, and Blakely, R.D., A search for Novel Presynaptic Determinants of Dopamine Signaling in *C. elegans*, Genetics Society of America, The Allied Genetics Conference, 2016.

Odiase, P.O., Whitaker, S.M., Snarrenberg, C.L., **Freeman, P.**, Hardaway, J.A., and Blakely, R.D. Role of swip-10, a novel gene, in the regulation of dopamine signaling in *Caenorhabditis elegans*, National Conference on Undergraduate Research, 2015.

Freeman, P., Sturgeon, S.M., Bermingham, D.P., Snarrenberg, C.L., Snider, S.L., Robinson, S.B., and Blakely, R.D. Five in a million: Analysis of changes in dopamine transporter function in dat-1 coding variants derived from the *C. elegans* Million Mutation Project, Society for Neuroscience Meeting, 2014.

Freeman, P., Robinson, S.B., Flagerty, D., Limbird, L., and Blakely, R.D., Swipping Together: A Collaborative Model for the Introduction of Authentic Research into the Undergraduate Curriculum of Science Majors, International Society for the Scholarship of Teaching and Learning, 2014.

Bass, S.R., Hardaway, J.A., Hardie, S.L., Whitaker, S.M., Popay, T., **Freeman, P.**, and Blakely, R.D. Sink or Swim: Identifying Novel Regulators of Presynaptic Dopamine Signaling, International *C. elegans* meeting, 2013.

Lankewicz, L.B. and Freeman-Junior, P., *Benefiting from the Reaffirmation Process: Lessons Learned and Pathways Shared*, 2006 Annual Meeting of the Commission on Colleges, Southern Association of Colleges and Schools, 2006.

Lewis, Teykia, Crenshaw, T., McCarroll, P., and Freeman-Junior, P., *Atomic Force Microscopy: A Valuable Tool for the Assessment of Microbial Organisms*, 64th Joint Annual Meeting of the National Institute of Science/ Beta Kappa Chi Honor Society, North Carolina A&T, North Carolina, March, 2006.

Akoroda, Ufuoma, Crenshaw, T., McCarroll, P., and Freeman-Junior, P., *Characterization of Morphological Changes of Bacillus Stearothermophilus using Atomic Force Microscopy*, 5th Annual Student Research Day, Fisk University, April, 2005.

Akoroda, Ufuoma, Crenshaw, T., McCarroll, P., and Freeman-Junior, P., *Characterization of Morphological Changes of Bacillus Stearothermophilus using Atomic Force Microscopy*, 62nd Annual Meeting of Beta Kappa Chi Honor Society, National Institute of Science and the Brookhaven Semester Program, 2005.

Mimms, K. Rogers, J., McCarroll, P., Lu, W.E., and Freeman-Junior, P., *The Surface Morphology of Bacillus stearothermophilus under pH stress*, 61st Annual Meeting of Beta Kappa Chi Honor Society, National Institute of Science and the Brookhaven Semester Program, 2004.

Rogers, J., Mimms, K., McCarroll, P., Lu, W.E., and Freeman-Junior, P., *The Surface Morphology of Bacillus stearothermophilus following stress induction*, 17th Annual National Association for Equal Opportunity in Higher Education High Technology Student Expo., St. Louis, MO., 2003 (Award recipient, third place)

Mimms, K. Rogers, J., McCarroll, P., Lu, W.E., and Freeman-Junior, P., *The Surface Morphology of Bacillus stearothermophilus under pH stress*, American Society of Microbiology, Tennessee-Kentucky Regional Conference, 2003 (Award recipient, first place)

McCall, K., McCarroll, P., Lu, W., Collins, W.E. and Freeman-Junior, P., *Atomic Force Microscope Analysis of Bacillus Stearothermophilus Spore Formation*, 4th Annual Student Research Day, Fisk University, April, 2002. Poster session.

McCall, K., McCarroll, P., Lu, W., Collins, W.E. and Freeman-Junior, P., *Atomic Force Microscope Analysis of Bacillus Stearothermophilus Spore Formation*, 16th Annual High Technology Student Expo of the National Association for Equal Opportunity in Higher Education, Washington, D.C., March, 2002. Oral session; Award recipient, first place.

McCall, K., McCarroll, P., Lu, W., Collins, W.E. and Freeman-Junior, P., *Atomic Force Microscope Analysis of Bacillus Stearothermophilus*, 59th Annual Meeting of Beta Kappa Chi Honor Society, and National Institute of Science Brookhaven Semester Program, South Carolina, March, 2002. Oral session; Award recipient, first place.

McCall, K., Culbreath, B., McCarroll, P., Lu, W., Collins, W.E. and Freeman-Junior, P., *Topographical Imaging of Bacillus Stearothermophilus and Micrococcus Luteus*, 58th Annual Meeting of Beta Kappa Chi Honor Society, and National Institute of Science Brookhaven Semester Program, Philadelphia, PA, March, 2001. Oral session; Award recipient, first place.

Austin, Julian, *Topographical Imaging of Microbes by Atomic Force Microscopy*, 57th Annual Meeting of Beta Kappa Chi Honor Society, and National Institute of Science Brookhaven Semester Program, Nashville, TN. 2000. Award recipient, second place.

Johnson, Kier, Freeman-Junior, P. and McCarroll, P., Hypertension, Breaking the Silence, UNCF HIV/AIDS Orientation and Professional Education Program Symposium, Preparing Health Leaders in the 21st Century, Atlanta, GA, 2000.

North, J., Austin, J., Horner, C. Lester, S., McCarroll, P., Lu, W., Collins, W.E. and Freeman-Junior, P. Real Space Topographical Imaging of Stress-Induced *Bacillus stearothermophilus*, *Spirillum volutans* and *Gluconobacter oxydans* by Atomic Force Microscopy, AMPS, Washington, DC, 2000.

Gaddy, T. and Freeman-Junior, P., A Comprehensive HIV/AIDS program for middle school students in Metropolitan Nashville, 55th Annual Meeting of Beta Kappa Chi and the National Institute of Science, Philadelphia, PA, 1998.

Ayers, S., Robertson, S and Freeman-Junior, P., The effect of PCB on the embryonic development of the White Leghorn Chicken, Annual conference of the Beta Kappa Chi Scientific Honor Society, Charlotte, NC 1996.

Freeman-Junior, P. and Lima, M.F., EGF-sensitive phosphorylation of the 90 Kd. EGF-receptor homologue of *Trypanosoma cruzi* Amastigotes. 43rd. Annual meeting of the American Society of Tropical Medicine and Hygiene, 1993.

Lima, M.F., Junior, P.F. and Ager, E., Involvement of epidermal growth factor in *Trypanosoma cruzi* growth, Annual meeting of the American Society for Microbiology, Atlanta, GA., 1993.

Junior, P.F., Villalta, F. and Lima, M.F., Intracellular forms of *Trypanosoma cruzi* present receptors for epidermal growth factor. 77th meeting of the Federation of American Societies for Experimental Biology, New Orleans, LA., FASEB J. 7:A493, 1993.

Lima, M.F., Freeman-Junior, P. and Villalta, F., Receptors for epidermal growth factor in intracellular forms of *T. cruzi*. 76th Annual meeting of the Federation of American Societies for Experimental Biology, Anaheim, CA., FASEB J. 4:A1352, 1992.

Freeman-Junior, P. and Lima, M.F., Identification and characterization of epidermal growth factor receptors in *Trypanosoma cruzi*, 40th Annual meeting of the American Society of Tropical Medicine and Hygiene, Boston, MA, 1991.

Freeman-Junior, P. and Lima, M.F., Involvement of peptide growth factors on *T. cruzi* amastigote development, 40th Annual meeting of the National Alliance of Research Centers of Excellence, Mayaguez, Puerto Rico, 1991.

Freeman-Junior, P. and Lima, M.F., Involvement of peptide growth factor on *T. cruzi* amastigote development, 3rd. meeting of the Association of Minority Health Professional Schools, New Orleans, LA., Abstract Book, p.26, 1991.

GRADUATE RESEARCH MENTOR

INCLUDES THESIS PREPARATION FOR ALL MASTER'S STUDENTS IN THE DEPARTMENT OF BIOLOGY, 1993-2003

Turner, Eddie, The Effects of Natural Compounds on Cell Proliferation *in vitro*. Fisk University and Meharry Medical College, Nashville, Tennessee.

Quadriyyah Debnam, Ph.D., Committee of Instruction, Meharry Medical College, School of Graduate Studies, Nashville, Tennessee, 1995-1998

Ayers, Shonette S., The Effects of 2,2',4,4',5'5'-Hexachlorobiphenyls on the Development of White Leghorn Chick Embryos, Fisk University, Nashville, Tennessee, 1996.

Robertson, Sabrina J., The Influence of Polychlorinated Biphenyl on the Kidney in the Chick Embryo. Fisk University, Nashville, Tennessee, 1996.

UNDERGRADUATE RESEARCH MENTOR

K. McCall, Atomic Force Microscope Analysis of *Bacillus Stearothermophilus*, 2001-2003. *McNair Scholar's Program*

Culbreath, Brian, Atomic Force Microscope Analysis of *Bacillus Stearothermophilus* 2001

North, Jaime, Morphological Analysis of *Spirillum volutans* using Atomic Force Microscopy, 1999-2000.

Austin, Julian, Topographical Imaging of Microbes by Atomic Force Microscopy, 1999-2000.

CONFERENCES AND PROGRAMS

Keynote Speaker, *Cultivating Highly Motivated Professionals and Scholars*, North Carolina State University, Raleigh, N.C, November 11, 2010.

"*Novel Funding Explorations: Discussion of how PUIs can achieve funding for science classrooms, labs, and undergraduate research.*" LI-COR Environmental Education Fund, (LI-COR Biosciences) Webinar, August 10, 2010

***NSF Academic Research Infrastructure – Recovery and Reinvestment (ARI-R2) Review Panel. (ARI-SBE-Integrated Science Centers), Key Bridge Marriott Hotel, Rosslyn, Arlington, VA. October 15-16, 2009**

***National Science Foundation, Minority Postdoctoral Research Fellowships and Supporting Activities Review Panel, Directorate for Biological Sciences, Washington, DC December 14-15, 2009**

Howard University Institute on Entrepreneurship, Washington, DC, June, 2007

Association of American Colleges and Universities Institute on General Education, 2007, Salve Regina University, Newport, Rhode Island, May, 2007

***National Science Foundation, Minority Postdoctoral Research Fellowships and Supporting Activities Review Panel, Directorate for Biological Sciences, Division of Biological Infrastructure, Washington, DC, February, 2006**

Annual Meeting of the American Council on Education, Los Angeles, California, 2006

Commission on Colleges, Southern Association of Colleges and Schools, On-Site Reaffirmation Visit, Tyler, Texas, 2006

Annual Meeting of the Southern Association of Colleges and Schools, Atlanta, Georgia, 2005

Women in Higher Education and Technology, Murfreesboro, Tennessee, 2005

Educational Testing Service Meeting, Lexington, Kentucky, 2005

Educating All One Nation, American Council on Education, Phoenix, Arizona, 2005

***National Science Foundation's Directorate for Biomedical Sciences Quality Education for Minorities Network Workshop (NSF-QEM; BWI Workshop), Lithicum, MD, 2004**

UNCF Strategic Planning Meeting for Undergraduate Colleges and Universities, Atlanta, GA. Conference, 2003

Interdisciplinary Curriculum Reform Institute, Women in Science Conference, University of Wisconsin, Oshkosh. Conference, 2003

Introducing Faculty to Materials Science and Engineering Program, University of Alabama, Tuscaloosa, 2002

***National Science Foundation, Major Research Instrumentation Panel Review, Directorate for Biological Sciences Division of Biological Infrastructure, 2001**

SCIENTIFIC MEETINGS AND CONFERENCES

Freeman, P. Parkinson's Disease and the Tale of Two SNPs: An Interdisciplinary Approach, 42nd Annual Meeting of The Mid-South Sociological Association, October 12-15, 2016.

Freeman-Junior, P. and McCarroll, P. Infusion of a Model HIV/AIDS education and service learning project into the curriculum of pre-health professional preparation programs, UNCF/Hope Advisory Board Meeting, Fairfax, VA, 1999.

James, J., McCarroll P, and Freeman-Junior, P. Psychosocial and socioeconomic barriers to HIV/AIDS education in Metropolitan Nashville, Davidson County, 56th Annual Meeting of the Beta Kappa Chi National Institute of Science Brook Haven Semester Program, Oklahoma City, Oklahoma, 1999

Saunders, D., Freeman-Junior, P., McCarroll, P. and Wetzel, R., Collaborative models for strengthening HIV/AIDS pre-service education, Annual Conference of the National Society of Allied Health, Albuquerque, New Mexico, 1999.

Freeman-Junior, P., McCarroll, P., and Halverson, J., HIV/AIDS Education in Metropolitan Nashville Davidson County School, Annual Conference of the Historically Black Colleges and Universities Network, Miami, Florida, 1998.

Freeman-Junior, P., McCarroll P., and Halverson, J., HIV/AIDS Education in Metropolitan Nashville Davidson County School, UNCF HIV/AIDS Orientation and Professional Education HOPE Conference, Daytona Beach, Florida, 1998.

Freeman-Junior, P., and McCarroll P., Infusion of HIV/AIDS education into the curriculum of prehealth professionals. UNCF HIV/AIDS Orientation and Professional Education Workshop, New Orleans, LA, 1998.

Freeman-Junior, P. and Long, C.A., Identification of *Plasmodia yoelii* erythrocytes binding antigens, Biology of Parasitism, Marine Biological Laboratory, Woods Hole, MA. Funding: The American Society of Cell Biology, 1989

Freeman, P. and Blackshear, M.A., Acute and chronic effects of 5-methoxydimethyltryptamine serotonin binding receptors, Meharry Medical College, Nashville, TN., 1978. Support: National Science Foundation.

Freeman, P. and Wingfield, R., The pyrolytic conversion of modified polymers from automobile shredder waste, Fisk University, 1986. Presentation: Memphis State University, Memphis, TN., 1986.

Freeman, P. and Barefield E.K., Isolation of carbene from a nickel complex and determination of its ability to react with olefins to form cyclopropanes, Georgia Institute of Technology, Atlanta, GA., 1985. Presentation: Minority Access to Research Careers (MARC) Conference, Bethesda, MD, 1985.

PRESENTATIONS

- *COLLEGE IS NOT THE 13TH GRADE, New Student Orientation, Fisk University, August 14, 2010*
- *Preparation for Graduate School: A Timeline, LEAD Program, 2008, 2009*
- *Preparing the Personal Statement, LEAD Program, 2008, 2009*
- *Financing Graduate School, LEAD Program, 2008, 2009*
- *A Voice from the Mountain, Church of the Holy Trinity Episcopal Church, Nashville, TN, 2006*
- *Preparation for Graduate School: A Timeline, McNair Scholars Program, 2004, 2006*
- *Healthy Lifestyles, Freshman Orientation, 2002-2004*
- *Preparation for Graduate School: A Timeline, McNair Scholars Program, 2004*
- *Financing Graduate School, McNair Scholars Program, 2004*
- *Preparing the Personal Statement, McNair Scholars Program, 2004, 2006*
- *Finding a Graduate Advisor, McNair Scholars Program, 2004*

PREVIOUS EXTERNAL FUNDING

(1) HBCU Health and Wellness Project. Subgrantee, State of Tennessee Award, Meharry Medical College, Nashville Tennessee.

Project Description. Project Director. The HBCU Health and Wellness Project is a State-wide initiative to improve the health status of underrepresented minorities. Funds received from the award are used to disseminate information regarding the prevention, intervention, and current treatment of diabetes, hypertension, cardiovascular disease, stroke, HIV/AIDS and obesity.

(2) Infusion of HIV/AIDS Education into the Curriculum of Pre-Health Professional at Fisk University Source: United Negro College Fund/ Centers for Disease Control and Prevention 10,000 2/98-2/99.

PI/Program Director: P. Freeman-Junior

Total Award Amount: \$10,000

Total Award Period Covered: February, 1998- February 1999.

Description: Funds were received to support the infusion of HIV into the curriculum of pre-health professionals at Fisk University. The program serves as a model for the implementation of similar projects into undergraduate institutions of higher learning. Key components of the program are the broad-spectrum approaches to the study of HIV with emphasis on service learning. Freeman-Junior-PI, Patricia McCarroll, Sheila Peters and Donna Rawls, Faculty Associates. **Community collaborators:** *DeDe Wallace Community Mental Health Center/Metropolitan Nashville Davidson County, Tennessee.* Program for the Practice of Abstinence through Communication Training Workshops. HIV/AIDS education program for middle school aged children; *Nashville Preventative Marketing Initiative*, Nashville, Tennessee. Social Marketing strategies for the prevention of HIV amongst college students; *Project Share.* Nashville, Tennessee counseling service for HIV positive women and children. 1997-1998.

(3) United Negro College Fund/Department of Environmental Education Program for Environmental Justice, Education and Research.

PI/ Program Director: R. Wingfield

Faculty Associates: P. Freeman-Junior and J. Adebajo

Total Award Amount: \$98,176

Total Award Period Covered: September 1995- August 1998

Description: The major goals of this project are (1) to educate minority and low income populations with respect to environmental hazards and (2) increase participation in the establishment and implementation of environmental policy.

INTERNAL FUNDING

A Faculty Development award was received for the initiation of a molecular research project designed to examine the use of herbs as antimicrobial agents. 2007-2008.

MEMBERSHIPS, HONORS AND APPOINTMENTS

- **Fisk University Faculty Representative to the Board of Trustees, 2017-2020**
- **Pre-Health Coordinator, 2017**
- **The Dolores Shockley Partnership Award, Dr. R.D. Blakely (Vanderbilt) and Dr. P. Freeman (Fisk), 2015**
- **Advisor, First Year Biology Students, 2015-present.**
- **Genetics, Society of America 2013-present**
- **Society for Neuroscience, 2013**
- **Biology Discipline Coordinator, 2010**
- **Chairman, Committee on Promotion, Tenure, and Retention, 2011-2014**
- **National Association of Advisors for the Health Professions, 2012-present**
- **Southeastern Association Advisors for the Health Professions, 2012-present**
- **University of the South, School of Theology Visiting Committee, 2009-2013**
- **National Science Foundation, Grant Reviewer, (4 appointments: 2001, 2006, 2009 (2))**
- **Board of Trustees, King's Daughters Day Home (Fundraising/grants), 2009**

- American Association of Undergraduate Professors, 2006
- Society for College and University Planning (SCUP), 2005
- American Association of Undergraduate Women, 2005
- Women in Higher Education and Technology (WHET), 2005
- **American Council on Education Fellow, 2005-2006; Bush-Hewlett Grant; Host Institution: Sewanee: The University of the South**
- American Society of Microbiology, Tennessee-Kentucky Chapter, 2003
- AAUP, University Representative, 2003
- Workshop: Introducing Science Faculty to Material Science and Engineering, Department of Metallurgic and Material Engineering, University of Alabama, Tuscaloosa, 2002
- National Science Foundation Major Research Instrumentation Panel Review. 2000-2001
- National Society of Allied Health. 1999
- Sigma Xi Scientific Research Society. 1998
- Who's Who Among Teachers in American Colleges and Universities. 1996
- Meharry Medical College, School of Graduate Studies and Research, Interdisciplinary Research Award. 1993
- Meharry Medical College, School of Graduate Studies and Research, Certificate of Outstanding Achievement. 1993
- National Institute of General Medical Sciences Minority Access to Research Careers-FASEB Travel Award. 1993
- American Society for Microbiology. 1993
- Dean's Award for Scientific Development. 1992
- American Society for Tropical Medicine and Hygiene. 1991-1993
- United States Army Medical Research Institute of Infectious Disease (USAMRIID) Travel Award. 1991
- National Institute of General Medical Sciences Minority Access to Research Careers Pre-doctoral Fellowship. 1991-1993
- School of Graduate studies and Research Certificate of Achievement. 1991
- Meharry Medical College Student Research Award. 1991
- Meharry Association of Office Personnel Award. 1990
- American Society of Cellular Biology Travel Award, Marine Biological Laboratories, MA. 1989
- Meharry Medical College Pre-Alumni Association Council Member at Large. 1988
- Patricia Roberts-Harris Fellow. 1988-1991
- Outstanding Young Woman of America. 1986
- Who's Who Among American Colleges and Universities. 1986
- Illinois Minority Graduate Incentive Award. 1986
- Minority Access to Research Careers Scholar. 1985
- National Mortar Board Honor Society. 1985
- Beta Kappa Chi Scientific Honor Society. 1984

COMMITTEES/ UNIVERSITY COMMITMENTS

- **National Mortar Board Honor Society, Campus Advisor, 2015**
- **2015 Freshman Academic Advisor (Biology), Class of 2019**
- **New Student Orientation Planning Committee, 2015**
- **Committee on Undergraduate Academic Advising, 2015**
- **Presentation: *College is not the 13th Grade*, Freshman Orientation, 2010, 2015**
- Search Committee: Fisk University Art Gallery Coordinator , 2010
- Search Committee: Director and Program Coordinator, HBCU Health and Wellness Project, 2010
- Search Committee: Graduate Biology Research Faculty, 2010.
- Executive Committee. Representative from the School of Natural Sciences, Mathematics, and Business.
- **Co-Chair, Academic Programs Subcommittee, Fisk University/SACS Self Study (Assessment), 2006-2009**
- Committee on Academic Excellence and Planning, 2006-present
- **University Judicial Council, 2005-present**
- Faculty Representative, University Board of Trustees, 2004-2005

- University Strategic Planning Committee, 2003-2005
- **Undergraduate Academic Advising, 1998-present**
- Advisor, Fisk-Vanderbilt Nursing Program, 2003-2005
- Faculty Representative, AAUP, 2004-2005
- Chairman, Faculty Assembly, Fisk University, 2003-2004
- Committee on Information Technology, 2003-2004
- Provost Council, 2003-2004
- W.E.B. DuBois Honor Committee, 2001-2004
- McNair Scholars Committee, 2002-2004
- Secretary, Executive Committee of the Faculty Assembly, 2000-2001
- Religious Life Committee, 2000-2001
- Faculty Development, 2000-2001
- Honors Program Project Director, 1998
- American Red Cross African American HIV/AIDS Focus Group, Nashville, Chapter, 1998
- Fisk University Faculty Welfare Committee, 1998
- Fisk University Biosafety Committee, Chair, 1998
- Fisk University Institutional Review Board for research involving human subjects, 1997-98
- Institutional Committee on Academic Advising, 1997-98
- Committee on Educational Program. January 1997-present
- Academic Advisor. 1994-present
- Fisk University Committee on Animal Care and Use. 1995-present
- NSaM Representative to the Executive Board of the Faculty Assembly. 1995-96
- Pew Retention Fall Orientation, speaker. August 1995
- Committee on Education and Research. 1994-present
- Natural Science and Mathematics Preprofessional Health Committee 1994-present

HIV/AIDS SEMINARS:

- UNCF-Premedical Summer Institute at Fisk and Vanderbilt Universities. 1998-2000
- NSF-Alliance for Minority Participation, Fisk University. 1998-2000
- Fisk University Mini College Summer Enrichment Program. 1998-1999
- New Hope Missionary Baptist Summer Enrichment Program. 1998
- Nashville City District Association Missionary Baptist Youth Conference. 1998

SUMMER PROGRAMS

- Director, Fisk-UNCF Premedical Summer Institute, Fisk University at site of The Robert Wood Johnson Foundation's Minority Medical Education Program, 2005
- Coordinator, MCAT Review Fisk-UNCF Premedical Summer Institute, Fisk University at site of The Robert Wood Johnson Foundation's Minority Medical Education Program, 1998-2004
- PEW Pre-Freshman Summer Orientation Program, Fisk University, June, 1997
- Instructor, UNCF Premedical Science Institute, Fisk University, at site of The Robert Wood Johnson Foundation's Minority Medical Education Program 1997
- Fisk University/Department of Environmental Education and Research, Summer Youth Program, Nashville, TN June, 1997-1998

SYMPOSIUMS/WORKSHOPS

National Institute of Mental Health Workshop for Early Stage Research Investigators, Rockville, MD, 2014.

The Effect of the Robert Wood Johnson-Minority Medical Education Program on the Successful Entry of Minority Students into Medical School, Annual Meeting of the American Association of Medical Colleges, Chicago, IL, October, 2000.

Grant Writing Workshop for HBCUs, Health Care Financing Administration and Tennessee State University Center for Health Research, Nashville, TN, October, 2000.

Fostering Partnerships for the New Millennium to Improve Health Quality and Reduce Health Disparities Among African Americans, HBCUs and Health Care Financing Administration Partnership Conference, sponsored by the Southern University Center for Wellness and National HBCU Health Services Network in collaboration with HCFA, New Orleans, LA, September, 2000.

Investigating Determinants of Health Disparities, HBCUs Health Services Research Conference, sponsored by the Southern University Center for Wellness and National HBCU Health Services Network in collaboration with HCFA, New Orleans, LA, September, 2000.

Major Research Instrumentation Review Panel, National Science Foundation, Washington, D.C., April, 2000

57th Annual Meeting of Beta Kappa Chi Honor Society and the National Institute of Science Brookhaven Semester Program (Judge), Nashville, TN, April 2000.

44th Annual Student Research Day Program (Judge), Meharry Medical College, Nashville, TN, March 2000

22th Annual Research Day (Judge), Tennessee State University, Nashville, TN, March 2000

Planning Committee on Eliminating Racial Disparities in Health, 3rd Annual UNCF/HOPE Technical Assistance Workshop, Atlanta, GA. March 2000.

Moderator, "Healing: The Interpersonal Rifts Between the Sexes", Form: "HIV/AIDS: Empowering the Community for Health and Prosperity in the New Millennium", Health Care Administration and Tennessee State University, Nashville, TN January 2000

Stanford University Conference on Race, CA November 1999

National Plan to Eliminate Syphilis from the United States: Nashville Initiative, Metropolitan Health Department of Nashville and Davidson County, October 1999. Speaker: David Satcher, M.D., Ph.D., Assistant Secretary for Health and U.S. Surgeon General, Department of Health and Human Services, Washington, D.C.

"Eliminating Health Disparities: A National Imperative", Eighth Annual C.W Johnson, Sr., M.D. Symposium, Meharry Medical College, Nashville, TN., October 1999. Speaker: David Satcher, M.D., Ph.D., Assistant Secretary for Health and U.S. Surgeon General, Department of Health and Human Services, Washington, D.C.

Meharry Medical College Tropical Disease Symposium, Nashville, TN. April 1999.

43rd Annual Student Research Day Program (Judge), Meharry Medical College, Nashville, TN, March 1999

21th Annual Research Day (Judge), Tennessee State University, Nashville, TN, March 1999

Association of American Medical Colleges, Premedical Science Institute Director's Meeting, Tucson, Arizona, 1999

Campus Liaison. Nashville AIDS Walk sponsored by Project COPE, Meharry Medical College, Nashville, TN, October 1998

Coordinator. **Sister to Sister Forum on Women's Issues**, Fisk University, Nashville, TN. Speakers: Sheila Dennie, AHEC Organization, Meharry Medical College, Sheila Peters, Licensed Clinical Psychologist, Fisk University, and Catherine Wyatt-Morley, author and AIDS activist. Coordinator. October 1998

Seventh Annual Family Re-Union Conference, sponsored by the University of Minnesota Children Youth and Family Consortium and The Vanderbilt Institute for Public Policy Studies, Child and Family Policy Center. Moderators: Vice President Al Gore and Tipper Gore. Vanderbilt University, Nashville, TN, June 1998

First Annual Tennessee Governor's Council on Physical Fitness Symposium, Murfreesboro, Tennessee, August 1998

The College Fund/UNCF, American Association for Health Education and American Association of Colleges for Teacher's Education National Pre-Service Forum: Collaborative Approaches for Strengthening Pre-service Programs to Prevent HIV Infection. Lansdowne, VA. August 1998

42nd Annual Student Research Day Program (Judge), Meharry Medical College, Nashville, TN, April 1998

20th Annual Research Day (Judge), Tennessee State University, Nashville, TN, March 1998

National Association of Broadcasters/Center's for Disease Control and Prevention/ Nashville Prevention Marketing Initiative broadcast media workshop, Vanderbilt University, Nashville, TN, October 1997

Michael J. Bent Memorial Lecture, Meharry Medical College, Nashville, TN,. Speaker: Dr. Helene Gayle, Director of the National Center for HIV/STD and TB Prevention, Center's for Disease Control and Prevention. October, 1997

Tennessee AIDS Education and Training Center Symposium for Woman Facing the Challenge of HIV/AIDS, Meharry Medical College, Nashville, TN, September 1997

National Institutes of Health Regional Seminar on Program Funding and Grants Administration, Vanderbilt University, Nashville, TN. September 1997

HIV/AIDS Orientation and Professional Education Program Workshop sponsored by the UNCF/Center's for Disease Control and Prevention, Division of Adolescent School Health, Atlanta, GA, July 1997

19th Annual Research Day (Judge), Tennessee State University, Nashville, TN, March 1997

Co-coordinator, Environmental Awareness/Health Fair and Seminar, Fisk University, March, 1997

Speaker, Twenty-fifth Commemorative Celebration of the founding of the School of Graduate Studies and Research, Meharry Medical College, Nashville, TN, April 1997

41st Annual Student Research Day Program (Judge), Meharry Medical College, Nashville, TN, April 1997

United States Environmental Protection Agency, the American Water Works Association and the National Rural Water Association, National Satellite Videoconference on Source Protection of Drinking Water Supplies, Vanderbilt University, Nashville, TN, May 1997

Asthma: Current Management and Treatment Strategy, Nashville, Marriott, Nashville, TN., Sept. 11, 1996

The Perfect System: A Review of Prostate Disease. Nashville, TN, Aug. 23, 1996

Powell S., Scruggs, M. and Freeman-Junior, P., "Update: UV Rays" Environmental Justice Student Form and Chemistry Department Seminar, Fisk University, Apr. 1996

National Institutes of Health Extramural Associates (EA) Program and Morehouse College Region IV, Regional Workshop. "Building Partnerships", Atlanta, GA. July 26-27, 1995

"*What's Love Got to Do With IT?* Men, Women and Violence", Woman's Conference Council, Department of Religion and Philosophy, Fisk University, moderator. March 1995

Assessment: Medicaid Eligibility Criteria and Coverage for Historically Black Colleges and Universities. National Association for equal opportunity in Higher Education (NAFEO), Washington, DC 1995

Annual Symposium in Molecular Toxicology, The Vanderbilt University Center in Molecular Toxicology, Nashville, TN, 1994-present

SPECIAL PROFESSIONAL QUALIFICATIONS

Southern, Northern and Western Analyses; restriction enzyme analysis; autoradiography; affinity chromatography; HPLC; nick translation; DNA sequencing; polyacrylamide gel electrophoresis; binding kinetics; phosphorylation

studies; two-dimensional gel electrophoresis; immunoprecipitation; 125I and biotin labeling; tissue culture; culturing of parasitic organisms; animal handling; silver and coomassie blue staining; handling and disposal of toxic substances.

COURSES TAUGHT

Biochemistry (2003-2004), Genetics (2003-present), **General Biology I (2000-2007)**, Graduate Molecular and Cellular Biology (2000, 2009-present), **Undergraduate Molecular Cell Biology (1993-present)**; **Senior Seminar (1993-present)**; **Microbiology (1994-2007)**, Graduate Seminar (fall 1995, 1996, 2009-present); **Core Biology** (fall 1994; AY 2006-present); Anatomy and Physiology (1993-1994).

OTHER ACTIVITIES:

- King's Daughters Daycare, 2009-present
- Middle Tennessee Triathlon Club, 2010-present
- Middle Tennessee Swim Club, 2010-present
- Major Taylor Cycling Club, 2009-present
- SACS PTO, B.C. Goodpasture Christian School, 2007
- Red Hat Society, 2005-present
- Accelerated Reader Program Volunteer, B.C. Goodpasture Elementary School
- Annual Fund Raising Committee, B.C. Goodpasture Christian School
- Hendersonville Endurance Athletes in Training (HEAT)
- Nashville Chapter of the NAACP
- Alpha Kappa Alpha Sorority, Inc.

RELIGIOUS AFFILIATION:

First Baptist Church, Hendersonville, 2000-present