

CURRICULUM VITAE

Tennille D. Presley, Ph.D.
Assistant Professor of Physics
Winston Salem State University
Department of Chemistry
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EDUCATION

Bachelor of Science, Interdisciplinary Physics North Carolina A & T State University	May 2002
Masters of Science, Biophysics The Ohio State University	March 2007
Doctor of Philosophy, Biophysics The Ohio State University	August 2007
Post-Doctoral Training, Physics & Translational Science Wake Forest University	October 2007-August 2010

PROFESSIONAL

Academic Appointments

Assistant Professor of Physics Winston Salem State University, Department of Chemistry	Fall 2010 to present
Faculty Affiliate Wake Forest University, Translational Science Center	Fall 2010 to present

Administrative Responsibilities/Appointments

Ad hoc Reviewer National Science Foundation	2014
Reviewer Association of American Colleges and Universities	2014
Panel Reviewer National Science Foundation	2013-2014

Committee Assignments

Faculty Senate Winston Salem State University	2014 to present
Organizer of the Faculty STEM Institute Winston Salem State University	2014

Organizing Committee Member and Session Chair Fifth International Meeting on the Role of Nitrite and Nitrate Physiology, Pathophysiology and Therapeutics (Session 4: New Pre-Clinical Models)	2013
Co-Director of the Science Immersion Program (SIP) Winston Salem State University	2012-2013
Faculty Search Committee Winston Salem State University	2012
Co-Advisor of Women in Science Program Winston Salem State University	2012 to present
Co-Advisor for Women in Science Program Winston Salem State University	2011-present
Organizing Committee Member Summer Undergraduate Research Experience Winston Salem State University	2011-2012
Center for Excellence & Teaching Liaison Winston Salem State University	2010-2013

RESEARCH AND TRAINING GRANTS AWARDED

- American Association of Colleges & Universities/National Science Foundation Preparing Critical Faculty for the Future² (2012-2015)
- American Association of Colleges & Universities/National Science Foundation Preparing Critical Faculty for the Future (2011-2013)
- National Science Foundation Targeted Infusion Project: Development and Enhancement of Physics Laboratories (2012-2014)
- Research Initiation Program Grant Recipient, Winston Salem State University (2011-2013)
- Wake Forest University School of Medicine Innovation and Entrepreneurship Initiative Drug Discovery (2011-2013)
- National Institutes of Health Ruth L. Kirschstein NRSA MARC Pre-doctoral Fellowship (2006-2007)
- University Graduate School Research Fellowship, The Ohio State University (2003-04)
- Minority Access for Research Careers (MARC) Training Program (2001-2002)

AWARDS/HONORS

- Travel Award Winner, Understanding Interventions Conference (2014)
- Travel Award Winner, Appalachian State University Women Scientists' Establishing Your Research Agenda Workshop (2014)
- Travel Award Winner, Minority Faculty Development Workshop for Engineers and Physicists (2012)
- Programs to Increase Diversity Among Individuals Engaged (PRIDE) in Health Related Research Mentee, Functional and Applied Genomics of Blood Disorders (2011-2012)
- Best Student Research Achievement Award of the Year, The Ohio State University Biophysics Program (2007)
- Minority Biophysicists Travel Grant, The 51st Annual Meeting of the Biophysical Society (2007)
- Bridges Scholar (2006)
- Best Advanced Research Award, The Ohio State University Biophysics Symposium (2006)

- Young Investigator Award, 11th *In Vivo* EPR Spectroscopy & Imaging and 8th International EPR Spin Trapping (2005)

SCIENTIFIC AND PROFESSIONAL SOCIETIES

- Society for Free Radical Biology and Medicine
- Society of STEM Women of Color
- Biophysical Society
- American Association of Colleges and Universities

COMMUNITY ACTIVITIES

- Delta Sigma Theta Sorority, Incorporated
- Wake Forest University PREP Program Mentor
- Science Fair Judge, Forsyth County Region V Science Fair
- Judge for Physical Sciences & Mathematics, Annual Biomedical Research Conference for Minority Students
- Special Olympics
- Emory University Minority Mentoring Program

PRESENTATIONS AT NATIONAL, REGIONAL AND STATE MEETINGS

- Improvements in Type II Diabetes Utilizing Acute Heat and Exercise, *Emory University STEM Research and Career Symposium* (2014)
- Heat Acclimation Improves HSPs and NO Bioavailability in a Type 2 Diabetic Rodent Model, *Fifth International Meeting on the Role of Nitrite and Nitrate in Physiology, Pathophysiology, and Therapeutics* (2013)
- The Effect of Heat Acclimation on Type II Diabetes, *Emory University STEM Research and Career Symposium* (2013)
- STEM Summer Immersion Program, *Association of American Colleges and Universities Next Generation STEM Learning: Investigate, Innovate, Inspire* (2012)
- Effect of Heat Acclimation on a Type 2 Diabetic Rodent Model, *13th Research Centers in Minority Institutions (RCMI) International Symposium on Health Disparities* (2012)
- NO Scavenging and Hemolysis in Sickle Cell Disease, *The Carolina Biophysics Symposium* (2010)
- .An Acute Effect of a High Nitrate Diet on Brain Perfusion in Older Adults, *The Society of Free Radical Biology in Medicine Meeting* (2010)
- A Novel Method to Measure Nitrite and Nitrosyl Hemoglobin in Whole Blood Using Electron Paramagnetic Resonance Spectroscopy, *The Society of Free Radical Biology in Medicine Meeting* (2009)
- The Mechanism of Hemolysis in Sickle Cell Anemia, *The American Society of Hematology Meeting* (2008)
- An EPR Oximetry Measurement of Reduced Oxygen Consumption in Endothelial Cells at Hyperglycemic Conditions, *The 12th In Vivo EPR Spectroscopy and Imaging/9th International EPR Spin Trapping Conference* (2007)
- Exposure to Extreme Hypoxia Attenuates Endothelial Cellular Respiration: A Potential Role of Hsp90-eNOS Association, *51st Annual Meeting of the Biophysical Society* (2007)

INVITED TALKS

- Wake Forest University Physics Colloquium (2014)
- University of North Carolina at Chapel Hill Physics Symposium (2014)
- University of the District of Columbia Faculty Mentoring & Advocacy Symposium (2014)
- University of Pittsburgh Vascular Medicine Institute (2014)
- Winston Salem State University Faculty Advising Institute (2014)
- Thurgood Marshall College Fund Member-Universities Professional Institute (2014)
- Wake Forest University Translational Science Center Freshman Seminar (2013)
- Wake Forest University Translational Science Center Full Body Meeting (2013)
- Winston Salem State University RAM Radio (2013)
- North Carolina A & T State University Physics Colloquium (2012)
- Wake Forest University Translational Science Center Freshman Seminar (2012)
- MARC and RISE Seminar (2010)
- Carolina Biophysics Symposium (2010)

MEETINGS, VISITING PROFESSORSHIPS, etc.

- North Carolina A & T State University Writing Retreat (2014)
- Emory University Research and Career Symposium (2014)
- STEM Women of Color Conclave (2014)
- Seizing Your Future: Mentoring HBCU Female Faculty for Success in Academia Symposium (2013)
- AAC&U Transforming STEM Education: Inquiry, Innovation, Inclusion and Evidence (2013)
- Emory University Research and Career Symposium (2013)
- STEM Women of Color Conclave (2013)
- ADVANCE Writing Retreat (2013)
- North Carolina A & T State University Writing Retreat (2013)
- University of Kentucky Grant Writing Workshop (2013)
- Thurgood Marshall College Fund's Member-Universities Professional Institute STEAM Meeting (2013)
- Purdue ADVANCE Women of Color STEM Conclave (2013)
- The 13th Research Centers in Minority Institutions (RCMI) International Symposium on Health Disparities (2012)
- PKAL Leadership for Change in STEM Education Post Conference Workshop (2012)
- AAC&U Network for Academic Renewal Conference: Next Generation STEM Learning: Investigate, Innovate, Inspire (2012)
- The Society for Free Radical Biology and Medicine (2012)
- STEM Women of Color Conclave (2012)
- Annual Biomedical Research Conference for Minority Students (2011)
- STEM Women of Color Conclave (2011)
- Annual Biomedical Research Conference for Minority Students (2010)
- The Society for Free Radical Biology and Medicine (2010)

PUBLICATIONS IN REFEREED JOURNALS

- Silverstein, M. D. Ordanes, A.T. Wylie, D.C. Files, C.E. Milligan, **T.D. Presley**, K. Kavanagh. Inducing Muscle Heat Shock Protein 70 Improves Insulin Sensitivity and Muscular Performance in Aged Mice. *J Geront Biol Sci*, 2014 (in press).
- Jessup, J.A., H. Wang, L.M. Macnamara, **T.D. Presley**, D.B. Kim-Shapiro, L. Zhang, A.F. Chen, L. Groban. Estrogen Therapy, Independent of Timing, Improving Cardiac Structure and Function in Oophorectomized mRen2.Lewis Rats. *Menopause* 20(8):860-868, 2013.
- Miller, G.D., A.P. Marsh, R.W. Dove, D. Beavers, **T.D. Presley**, C. Helms, E. Bechtold, S.B. King, D.B. Kim-Shapiro. Plasma Nitrate and Nitrite are Increased by a High Nitrate Supplement, But Not By High Nitrate Foods in Older Adults. *Nutrition Research* 32(3):160-168, 2012.

- Jessup, J.A., L. Zhang, **T.D. Presley**, D.B. Kim-Shapiro, H.Wang, A.F. Chen, L. Groban. 2011. Tetrahydrobiopterin Restores Diastolic Function and Attenuates Superoxide Production in Ovariectomized mRen2.Lewis Rats. *Endocrinology* 152:2428-2436, 2011.
- Jessup, J.A., L. Zhang, A.F. Chen, **T.D. Presley**, D.B. Kim-Shapiro, M.C. Chappell, H. Wang, L. Groban. Neuronal Nitric Oxide Synthase Inhibition Improves Diastolic Function and Reduces Oxidative Stress in Ovariectomized mRen2.Lewis Rats. *Menopause* 18:698-708, 2011.
- **Presley, T.D.**, A.R. Morgan, E. Bechtold, W. Clodfelter, R.W. Dove, J.M. Jennings, R.A. Kraft, S.B. King, P.J. Laurenti, W.J. Rejeski, J.H. Burdette, D.B. Kim-Shapiro, and G.D. Miller. Acute Effect of a High Nitrate Diet on Brain Perfusion in Older Adults. *Nitric Oxide* 24:34-42, 2011.
- **Presley, T.D.**, K. Vedam, L.J. Druhan, and G. Ilangovan. Hyperthermia-Induced Hsp90-eNOS Preserves Mitochondrial Respiration in Hyperglycemic Endothelial Cells by Down-Regulating Glut-1 and Up-Regulating G6PD Activity. *J Biol Chem* 285(49):38194-38203, 2010.
- Dobrosielski, DA., **T.D. Presley**, A. Perlegas, A.P. Marsh, D.B. Kim-Shapiro, and W.J. Rejeski. Plasma Nitrite Response in Older Women to a Physical Function Test. *Aging Clin Exp Res* 22(1):1-4, 2009.
- **Presley, T.D.**, A. Perlegas, L. Bain, S. Ballas, J. Nichols, H. Sabio, M. Gladwin, G. Kato, and D. Kim-Shapiro. Effects of a Single Sickling Event on the Mechanical Fragility of Sickle Trait Erythrocytes. *Hemoglobin* 34(1):24-36, 2009.
- **Presley, T.D.**, K. Vedam, X. Liu, J.L. Zweier, and G. Ilangovan. Activation of Hsp90/NOS and Increased NO Generation Does Not Impair Mitochondrial Respiratory Chain by Competitive Binding at Cytochrome c Oxidase in Low Oxygen Concentrations. *Cell Stress Chaperones* 14(6):611-627, 2009.
- **Presley, T.D.**, M. Velayutham, K. Vedam, J. Zweier, and G. Ilangovan. Activation of Hsp90-eNOS and Increased NO Generation Attenuates Respiration in Hypoxia-Treated Endothelial Cells. *Am J Physiol Cell Physiol* 295(5):C1281-C1291, 2008.
- Jones, C., Z. Han, **T.D. Presley**, S. Varadharaj, J. Zweier, G. Ilangovan, and B. Alevriadou. Endothelial cell respiration is affected by the oxygen tension during shear exposure: Role of mitochondrial peroxynitrite. *Am J Physiol Cell Physiol* 295(1):C180-C191, 2008.
- He, X., I. Azarov, A. Jeffers, **T.D. Presley**, J. Richardson, S. King, M. Gladwin, and D. Kim-Shapiro. The potential of Angeli's salt to decrease nitric oxide scavenging by plasma hemoglobin. *Free Rad Biol Med.* 44:1420-1432, 2008.
- **Presley, T.D.**, P. Kuppusamy, J.L. Zweier, and G. Ilangovan. EPR Oximetry as a Quantitative Tool to Measure Cellular Respiration: A Consideration of Oxygen Diffusion Interference. *Biophys J.* 91:4623-31, 2006.
- **Presley, T.D.**, P. Kuppusamy, J.L. Zweier, and G. Ilangovan. The Role of Heat Shock Protein 90 and Endothelial Nitric Oxide Synthase Signaling in Cardiovascular Therapy. *Curr Sign Trans Ther.* 1(3):305-315, 2006.
- **Presley, T.D.**, P. Kuppusamy, J.L. Zweier, and G. Ilangovan. The Role of Heat Shock Protein 90 and Endothelial Nitric Oxide Synthase Signaling in Cardiovascular Therapy. *Curr Sign Trans Ther.* 1(3):305-315, 2006.

TRAINEES

Present

Lanazha Belfield
KaDesia Hawkins

Past

Ashlee Clark
Tameisha Guthrey
Ashley Jackson

Bethany Melton
Leah Pompey