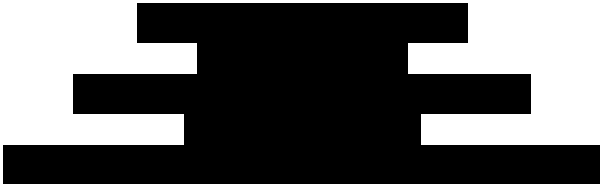


Natavia S. Middleton, Ph.D.

Dean of Natural Sciences



EDUCATION

2003 B.S. in Biology with cognates in Education and Chemistry, University of South Carolina, Columbia, South Carolina

2008 Ph.D. in Molecular and Cellular Pharmacology/Lung Biology, University of South Alabama, Mobile, Alabama
Dissertation: Epigenetic Regulation of Hypoxia-Induced Gene Expression: Role of Histone Deacetylases.

RESEARCH INTERESTS

Hypoxic Gene Regulation
Post-translational Modifications
Chromatin Remodeling
Transcriptional Complex Assembly
Epigenetic Mechanisms

PROFESSIONAL EXPERIENCE

2000 Undergraduate Research Assistant, Biological Sciences, South Carolina State University, Orangeburg, SC
PIs: Dr. Ajoy Chakrabarti and Dr. Johnnie Jenkins

2002 Undergraduate Research Assistant, Biological Sciences, University of South Carolina, Columbia, SC (2002-2003)
PI: Johannes Stratmann

2004 Graduate Research Assistant, Department of Pharmacology, University of South Alabama, Mobile, AL (2004-2008)
PI: Dr. Mark N. Gillespie

- 2009 Biology Instructor and Program Coordinator, Arts and Sciences Division, Technical College of the Lowcountry, Beaufort, SC 29901 (2009-2014)
- 2014 Interim Dean of Arts and Sciences and Biology Instructor, Technical College of the Lowcountry, Beaufort, SC 29901 (2014-2015)
- 2015 Academic Chair of Natural Sciences MT/DT Campus, St. Petersburg College, St. Petersburg, FL 33733 (2015-2016)
- 2016 Interim Dean of Natural Sciences and Engineering, St. Petersburg College, St. Petersburg, FL 33733 (2016-May 2017)
- 2017 Dean of Natural Sciences and Engineering, St. Petersburg College, St. Petersburg, FL 33733 (May 2017-present)

TEACHING EXPERIENCE

- 2002 Student Teacher: Chemistry, Spring Valley High School, Columbia SC
- 2003 Student Teacher: Physics, Dreher High School, Columbia SC
Mentor Teacher: Randolph Brooks
- 2005 Instructor: Cell Biology, Biomedical Enrichment and Recruitment Program, University of South Alabama
- 2006 Instructor: Cell Biology, Biomedical Enrichment and Recruitment Program, University of South Alabama
- 2007 Course Director and Instructor: Cell Biology, Biomedical Enrichment and Recruitment Program, University of South Alabama
- 2008 Course Director and Instructor: Cell Biology, Biomedical Enrichment and Recruitment Program, University of South Alabama
- 2009 Biology Instructor: Technical College of the Lowcountry, Beaufort, SC 29901 (2009-2015)
- 2015 Academic Chair of Natural Sciences, St. Petersburg College, St. Petersburg, FL 33733 (2015-2016)

UNIVERSITY/COLLEGE EXPERIENCE

- 2005 Vice President, Basic Medical Science Student Organization, University of South Alabama, Mobile, AL
- 2005 Presenter, Expanding Your Horizons Conference, University of South Alabama, Mobile, AL
- 2006 Event Judge, Science Olympiad, University of South Alabama, Mobile, AL
- 2006 Presenter, Expanding Your Horizons Conference, University of South Alabama, Mobile, AL
- 2006 Editorial Board Member, Did You Know Archives, Center of Lung Biology, University of South Alabama, Mobile, AL
- 2006 President, Basic Medical Science Student Organization, University of South Alabama, Mobile, AL
- 2006 Graduate Program Executive Committee Student Representative 2005-2006, University of South Alabama, Mobile, AL
- 2007 Editorial Board Member, Did You Know Archives, Center of Lung Biology, University of South Alabama, Mobile, AL
- 2007 Basic Medical Science Student Organization, University of South Alabama, Mobile, AL
- 2008 Presenter, Girl's in Math and Sciences (GEMS) Conference, University of South Alabama, Mobile, AL
- 2008 Editorial Board Member, Did You Know Archives, Center of Lung Biology, University of South Alabama, Mobile, AL
- 2009 Student Appeals Committee, Technical College of the Lowcountry, Beaufort, SC (2009, 2012)
- 2010 Strategic Planning Committee, Technical College of the Lowcountry, Beaufort, SC (2010-2011)
- 2010 Online course Task Force, Technical College of the Lowcountry, Beaufort, SC
- 2011 Program Coordinator for Arts and Sciences Division, Technical College of the Lowcountry, Beaufort, SC (2011-2012)
- 2011 Faculty Liaison for Health Sciences Accreditation Site Visits, Technical College of the Lowcountry, Beaufort, SC (2011-2015)

- 2011 Co-Advisor of TCL Gospel Choir, College of the Lowcountry, Beaufort, SC (2011-2012)
- 2011 Judge, Student Commencement Speaker, Technical College of the Lowcountry, Beaufort, SC
- 2011 Co-Advisor of TCL Gospel Choir, College of the Lowcountry, Beaufort, SC (2011-2012)
- 2011 Institutional Curriculum Committee, Technical College of the Lowcountry, Beaufort, SC (2011-2015)
- 2011 Faculty Liaison, Predominately Black Institution Grant, Technical College of the Lowcountry, Beaufort, SC
- 2012 National Science Foundation Principal Investigator, Technical College of the Lowcountry, Beaufort, SC (2012-2015)
- 2013 Faculty Participant, QEP, Technical College of the Lowcountry, Beaufort, SC (2012-2015)
- 2013 Judge, Student Commencement Speaker, Technical College of the Lowcountry, Beaufort, SC
- 2014 Judge, Student Commencement Speaker, Technical College of the Lowcountry, Beaufort, SC
- 2014 Faculty Participant, SACS Accreditation Site Visit, Technical College of the Lowcountry, Beaufort, SC
- 2015 Clemson Articulation for Agriscience Biotechnology Certificate, Technical College of the Lowcountry, Beaufort, SC
- 2015 Student Appeals Committee, St. Petersburg College, St. Petersburg, FL 33733
- 2015 Event Judge, Science Fair, Academy Prep, St. Petersburg, FL
- 2015 National Science Foundation Advanced Technical Education Panel Reviewer, Alexandria, Virginia
- 2016 National Science Foundation Advanced Technical Education Panel Reviewer, Alexandria, Virginia
- 2016 Faculty Participant, QEP, St. Petersburg College, St. Petersburg, FL 33733 (2015-2016)

- 2016 SPC Chair Delta Academy, St. Petersburg College, St. Petersburg, FL 33733
- 2016 St. Petersburg Foundation Grant, Today a Reader, Tomorrow a Leader, St. Petersburg College, St. Petersburg, FL 33733
- 2017 National Science Foundation Advanced Technical Education Panel Reviewer, Alexandria, Virginia
- 2017 St. Petersburg Dean of Health Sciences Search and Screen Committee, St. Petersburg College, St. Petersburg, FL 33733
- 2018 National Science Foundation College of Education Reviewer for Division of Undergraduate Education (DUE) *Ad Hoc*, Alexandria, Virginia
- 2019 St. Petersburg Dean of Workforce Search and Screen Committee, St. Petersburg College, St. Petersburg, FL 33733
- 2019 National Science Foundation Advanced Technical Education Panel Reviewer, Alexandria, Virginia
- 2019 St. Petersburg Executive Director of Development Search and Screen Committee, St. Petersburg College, St. Petersburg, FL 33733
- 2019 National Science Foundation College of Education Reviewer for Division of Undergraduate Education (DUE) *Ad Hoc*, Alexandria, Virginia

HONORS AND AWARDS

- 2004 NIH Institutional Training Grant Fellow- Cell Signaling and Lung Pathobiology through the University of South Alabama Center for Lung Biology, 2004-2006
- 2006 ASPET/MARC Minority Graduate Student Travel Award, FASEB, San Francisco, California, April
- 2007 Abstract (Oral Presentations & Poster Session) Winner-Acres of Diamonds Award, Minority Research Trainee Forum, Adventura, Florida, September
- 2008 ASPET/MARC Minority Graduate Student Travel Award, FASEB, San Diego, California, April
- 2008 2nd place, contest for giving scientific presentations, IDL course 650

- 2012 SCTEA/Employee of the Year-Faculty Member of the Year, Technical College of the Lowcountry, 2012
- 2012 NISOD Excellence Award recipient, Technical College of the Lowcountry, 2012
- 2014 South Carolina Technical College Faculty Academy, STEM Tech Education in the South Carolina Technical College System, 2014-2015
- 2016 St. Petersburg Foundation Grant, Today a Reader, Tomorrow a Leader, St. Petersburg College, St. Petersburg, FL 33733

INVITED LECTURES

- 2005 Graduate Student Orientation Seminar: How to Survive Graduate School, Basic Medical Sciences Program, University of South Alabama, Mobile, Alabama
- 2006 Graduate Student Orientation Seminar: Why you should and want to go to Graduate School, Summer Scrubs, University of South Alabama, Mobile, Alabama.
- 2007 The hypoxia-induced recruitment of HDAC1 to the VEGF promoter of pulmonary artery endothelial cells (PAECs), Minority Trainee Research Forum, Aventura, Florida.
- 2011 Faculty Development-Camtasia Best Practices, Technical College of the Lowcountry, January 2011

FUNDING

Southeast Affiliate American Heart Association Predoctoral Fellowship; Chromatin Remodeling and Vascular Endothelial Growth Factor Expression in Hypoxia; 7/1/2006-6/30/2008; \$36,000. Principal Investigator: Natavia Middleton.

National Science Foundation Advanced Technical Education Grant; Emergent Use of Agriscience Biotechnology; August 1, 2012-July 31, 2015; \$199,200. Principal Investigator: Natavia Middleton.

St. Petersburg Foundation Grant, Today a Reader, Tomorrow a Leader Grant; \$3000.

National Science Foundation Division of Undergraduate Education Grant;

Tampa Bay Scholarships for Education and Employment Development in STEM (SEEDS); August 15, 2014-July 31, 2019; \$623,740. Co-Principal Investigator: Natavia Middleton (2016).

National Science Foundation Advanced Technical Education Grant; Biomedical Engineering Technology - Pathways to Medical Device Manufacturing, Networking, and Cybersecurity; August 1, 2017-July 31, 2020; \$619,859. Co-Principal Investigator: Natavia Middleton.

PRESENTATIONS

- 2005 Research in Progress, Center of Lung Biology, University of South Alabama, March
- 2005 Research in Progress, Center of Lung Biology, University of South Alabama, November
- 2006 Poster: Hypoxia-induced oxidative base modifications in the VEGF promoter of pulmonary artery endothelial cells (PAECs) may alter chromatin remodeling, FASEB, San Francisco, April
- 2006 Poster: HIF-1 Dependent Recruitment of Chromatin-Remodeling Enzymes to the Hypoxic Response Element of the VEGF Gene in Pulmonary Artery Endothelial Cells (PAECs), American Thoracic Society, San Diego, May
- 2006 Research in Progress, Center of Lung Biology, University of South Alabama, October
- 2007 Poster: Hypoxia-induced recruitment of HDAC1 to the VEGF promoter of pulmonary artery endothelial cells (PAECs), FASEB, Washington D.C., March
- 2007 Research in Progress, Center of Lung Biology, University of South Alabama, October
- 2007 Poster: Hypoxia-induced recruitment of HDAC1 to the VEGF promoter of pulmonary artery endothelial cells (PAECs), College of Medicine Research Forum, University of South Alabama, October
- 2008 Poster: Regulation of VEGF mRNA expression in hypoxic pulmonary artery endothelial cells (PAECs) by histone deacetylases (HDACs), FASEB, San Diego, April

- 2008 The hypoxia-induced recruitment of HDAC1 to the VEGF promoter of pulmonary artery endothelial cells (PAECs), College of Medicine, University of South Alabama, June
- 2014 Poster: Emergent Use of Agriscience Biotechnology, Technical College of the Lowcountry, National Science Foundation Advanced Technical Education Principal Investigators Conference, Washington, D.C, October

ABSTRACTS AND PUBLICATIONS

Middleton, N.S., Gillespie, M.N., Hypoxia-induced oxidative base modifications in the VEGF promoter of pulmonary artery endothelial cells (PAECs) may alter chromatin remodeling. *FASEB J.*, 20(4):428.16, 2006.

Middleton, N.S., Gillespie, M.N., HIF-1 Dependant Recruitment of Chromatin-Remodeling Enzymes to the Hypoxic Response Element of the VEGF Gene in Pulmonary Artery Endothelial Cells (PAECs). *American Thoracic Society*, 3:A866, April 2006.

Middleton, N.S., Gorodnya, O., Ruchko, M.R., and Gillespie, M.N., Hypoxia-induced recruitment of HDAC1 to the VEGF promoter of pulmonary artery endothelial cells (PAECs). *FASEB J.*, 21(6):762.13, 2007.

Middleton, N.S., Gorodnya, O., Ruchko, M.R., and Gillespie, M.N., Regulation of VEGF mRNA expression in hypoxic pulmonary artery endothelial cells (PAECs) by histone deacetylases (HDACs). *FASEB J.*, 22:1115.18, 2008.

Ruchko, M.F., Gorodnya, O., Pastukh, V., Swiger, B., Middleton, N.S., Wilson, G.L., and Gillespie, M.N., Hypoxia-induced oxidative base modification in the VEGF hypoxic response element are associated with transcriptionally active nucleosomes. *Free Radical Biology and Medicine*, 46(3):352-359, 2009.

Middleton, N.S., Did you know...not cases of emphysema are caused by smoking? *USA College of Medicine Center for Lung Biology Did You Know Archives*, February 2009.