

Curriculum Vitae
Charcacia T. Sanders, PhD
Charcacia.Sanders@untDallas.edu

EDUCATIONAL BACKGROUND:

University of Texas Southwestern Medical Center Dallas, Dallas, TX
Ph.D., Neuroscience May 2010
Dissertation Advisor: Dr. Dean P Smith, MD, PhD

Dissertation Title: *The Role of dsRNA Binding Proteins R2D2 and LUMP in Drosophila Gametogenesis*
Graduate School of Biomedical Sciences Division of Basic Science

Prairie View A&M University, Prairie View, TX May 2003
Bachelor of Science, Biology, Chemistry Minor, *cum laude*

Texas Educator Certificate June 2011
Science (Grades 4-8)
Life Science (9-12)
English as a Second Language Supplemental (Grades 4-12)

TEACHING EXPERIENCE:

Tarrant County College – South Campus, Fort Worth, TX 2016 -
Adjunct Professor – Biology
Anatomy & Physiology 2401 – Lecture

Colorado Technical University, Online 2014 –
Assistant Professor – General Education
Introduction to the Sciences
Science and Technology Laboratory

Collin College – Preston Ridge Campus, Frisco, TX 2012 –
Associate Professor: Anatomy & Physiology/Biology
Biology 1406 – Lecture/Lab
Biology 1408 – Lecture/Lab
Anatomy & Physiology 2401 – Lecture

University of North Texas at Dallas, Dallas, TX 2011 –
Adjunct Faculty: Biology
Environmental Science – Lab/Lecture
Earth Science – Lab/Lecture (online)

Eastfield College, Mesquite, TX 2011
Adjunct Faculty: Biology

BIOL 1407 – Lab/Lecture

- The Barack Obama Male Leadership Academy**, Dallas, TX 2012 –
Teacher – Biology Lead Teacher/New Teacher Mentor
Science Department Chair (2012 – 2014)
Science-7 Pre-AP
Science-8 Pre-AP
Biology Pre-AP
AP Environmental Science
- Sarah Zumwalt Middle School**, Dallas, TX 2010 – 2012
Teacher – Science -8/ NASA Campus Coordinator
Science-7
Science-8
Science-8 Pre-AP
- Prairie View A&M University**, Prairie View, TX 2002-2003
Supplemental instructor/Undergraduate Assistant
Taught supplemental classes for College Biology for non-majors
Taught supplemental classes for General Biology for majors
- ADDITIONAL TEACHING ACTIVITIES:**
- Private tutor*, Prairie View A&M University, TX 2002
Provided private lessons in college-level Chemistry and General Biology
- Private tutor*, University College, TX 2001-2002
Tutored college freshmen in General and College Biology
- RESEARCH EXPERIENCE:**
- UT Southwestern Medical Center Dallas**, Dallas, TX 2004-2010
Departments of Pharmacology & Neuroscience
Advisor: Dr. Dean P Smith, MD, PhD
Doctoral Student/Postdoctoral Researcher I
Performed genetic analysis of mutations causing infertility in Drosophila
Utilized biochemical and molecular methods to identify and characterize, and
understand the factors involved in the function of a double stranded RNA
binding protein
- Vanderbilt University**, Nashville, TN 2002
Department of Neurology
Advisor: Dr. Ronald Wiley, MD, PhD
Summer Research Fellow
Mapped pain neurons in spinal cord to a specific region in the brain

University of Missouri Columbia, Columbia, MO 2001
 Department of Biochemistry
 Advisor: Dr. Grace Sun, PhD
Summer Research Fellow
Used microglial cells to examine the neuroprotective effects of quercetin and genistein

University of Iowa, Iowa City, IA 2000
 Department of Internal Medicine,
 Advisor: Dr. Neal Weintraub, MD
Summer Research Fellow
Performed immunohistochemical analysis of injured aortic cells to determine to the source of superoxide (O_2^-) that occurs in atherosclerosis

PROFESSIONAL ORGANIZATIONS and AFFILIATIONS

National Science Teacher Association
 Science Teacher Association of Texas
 National Alliance of Black School Educators
 Gamma Sigma Sigma National Service Sorority

AWARDS & ACHIEVEMENTS:

Dallas ISD District Science Fair – Students Awarded in Multiple Categories 2016
 Dallas ISD Distinguish Teacher Proficient II Level 2015
 Dallas ISD District Science Fair – Students Awarded in Multiple Categories 2015
 Dallas ISD District Science Fair – Students Awarded in Multiple Categories 2014
 Claes Nobel Educator of Distinction Award 2013
 Beal Bank Regional Science Fair – Honorable Mention 2013
 Sarah Zumwalt Middle School Outstanding Educator Award 2011
 2nd Place Poster Presentation in the 9th Annual Biotechnology Conference 2009
 John Neely Bryan Elementary Outstanding Volunteer Award 2009
 Department of Biology Outstanding Research Student Award 2003
 1st Place Oral Presentation in 17th Annual UTMB Undergraduate Symposium 2003

ADDITIONAL ACTIVITIES AND HONORS:

New Teacher Mentor for Compass Alternative Certification Program 2016
 Earth Day Texas Exhibitor 2016
 Dallas ISD STEM Day Presenter 2016
 Barack Obama Male Leadership Academy STEM Expo Coordinator 2016
 Dallas ISD STEM Day Presenter 2015
 Barack Obama Male Leadership Academy Science Fair Coordinator 2015
 Earth Day Texas Exhibitor 2014
 ULGDYP Annual Youth Conference Presenter 2014
 Barack Obama Male Leadership Academy Science Fair Coordinator 2014
 Dallas ISD Division 4 Academic Council 2012 – 2013

Barack Obama Male Leadership Academy Science Fair Coordinator	2013
ULGDYP Annual Youth Conference Presenter	2013
CAST Conference Volunteer	2011/2012
Prairie View A&M University Annual Biology Symposium Judge	2006 – 2013
Tom C. Gooch Elementary Career Fair Presenter	2010
Health Careers Recruitment and Exposure Program Career Fair Presenter	2010
John Neely Bryan Elementary Outstanding Volunteer Award	2009
John Neely Bryan Elementary Pearls & Lace Society Volunteer/Mentor	2008
Prairie View A&M University Annual Biology Seminar Speaker	2007
T.J. Rusk Middle School Career Fair Presenter	2007 – 2008
Beal Bank Dallas Regional Science Fair Judge	2006 – 2009
Prairie View A&M University REU Conference Panelist	2004 – 2007
Allen Chapel Baptist Church Youth Instructor	2003 –

PUBLICATIONS:

1. Kalidas S, Sanders C, Ye X, Tamara Strauss T, Kuhn M Qinghua Liu Q Smith DP. 2008. *Drosophila* R2D2 Mediates Follicle Formation in Somatic Tissues through Interactions with Dicer-1. *Mechanisms of Development* 125(5-6):475-85
2. Sanders C and Smith DP. 2011. LUMP is a putative Double-Stranded RNA binding Protein Required for Male Fertility in *Drosophila melanogaster*. *PLoS One* 6(8):e24151

PRESENTATIONS:

1. Sanders C and Smith DP. (2009). LUMP is Required for Male Fertility and Spermatid Individualization in *Drosophila*. Graduate Student Poster Session 41st Annual Sigma Xi Research Forum. Dallas, TX
2. Sanders C and Smith DP. (2009). LUMP is Required for Male Fertility and Spermatid Individualization *Drosophila*. 9th Annual Biotechnology Conference. Plano, TX
3. Sanders C. (2013). Environmental Engineering: Using Science to Improve Environmental Quality. ULGDYP Annual Youth Conference: S.T.E.M.ulating Success in Education!. Dallas, TX
4. Sanders C. (2014). The Science Guys Presents: S.T.EM.ulations. ULGDYP Annual Youth Conference: STEM Careers and Education. Dallas, TX