

PARTICIPANTS

Sara C. Arenas De Leon, B.S. (California State University Los Angeles)

Mentor: Karen Haas, PhD

"PD-1: PD-1 Ligand Inhibition Increases the Quantity of Antibody Binding to Tn-Expressing Leukemia Cells"

Yismeilin R. Feliz-Mosquea, B.S. (Inter American University of Puerto Rico)

Mentors: Katherine Cook, PhD/David Soto-Pantoja, PhD

"T-cell Dysfunction Prevention of Immune-Mediated Cancer Cell Killing and Immune Checkpoint Therapy Resistance Promoted by UPR Signaling"

Sierra A. Nance, B.S. (Winston-Salem State University)

Mentor: TanYa Gwathmey-Williams, PhD

"Cardiometabolic Status in Obese African-American Women is Linked to Inflammation, Oxidative and Glycative Stress"

Sierra L. Patterson, B.S. (North Carolina State University)

Mentors: Gagan Deep, PhD/Tina Brinkley, PhD

"Novel Bio-fluid-Based Exosomal Biomarker for Alzheimer's Disease"

Ashley A. Smith Christensen, B.A. (Cornell University)

Mentor: David Soto-Pantoja, PhD

"Targeting CD47 Expression on Macrophages Regulates Immunometabolism Enhancing Tumorcidal Activity Against Cancer Cells"

Lillian Zerihun, B.S. (Duke University)

Mentor: TanYa Gwathmey-Williams, PhD

"Cystatin-C as a Marker of Early Renal Damage Among Young-Adults"

We wish to extend our sincere appreciation to the mentors for their outstanding contributions to the success of the program.



**2017
POST-BACCALAUREATE
RESEARCH EDUCATION PROGRAM
(PREP) SCHOLARS
RESEARCH SYMPOSIUM**

Keynote Speaker

David Soto-Pantoja, PhD
**Assistant Professor-Cardiovascular
Sciences/Comprehensive Cancer Center**
"My Career Pathway"

Panel Speakers

Shierina Fareed, MA
PhD Student-UNC Greensboro

Exazevia Logan, PhD
Associate Professor-WSSU

June 13, 2017
9:30 am – 1:30 pm
Nutrition Bldg., G floor
Commons 1, 2, 3

The WFSM Post-baccalaureate Research Education Program (PREP) Scholars opportunity is funded by the NIGMS and was created in August of 2001 to provide 1-2 years of research, coursework and GRE preparation to students under-represented in seeking the PhD for careers in research in the biomedical sciences. Drs. Debra Diz and TanYa Gwathmey-Williams are the directors of the program. Trainees accepted into the program select research mentors from a wide range of topic areas for their research intensive experience. There are journal clubs and other enrichment activities provided throughout the year.

SUMMARY OF OUR SUCCESS

Since 2001, 80 trainees have been supported by the PREP and 62 trainees have entered graduate programs (50 PhD and 18 Master's or Professional Schools) with a ~90% retention rate. The majority of these participants were African American (~75%) and Hispanic (~20%). The PREP pipeline contributes ~25% of the minority students in WFUGS Biomedical Sciences PhD programs and the percentage of under-represented minority students rose from less than 5% to 16-20% during the period that PREP has been active. Twenty-five students have already completed their degrees; thirteen are in academic (assistant or associate professors), government or industry leadership positions; 90% are in research-intensive or research-related careers. Four new students will enter the program in August, 2017.

This educational series is partially supported by Farley-Hudson Foundation, Inc.

David Soto-Pantoja, PhD Wake Forest School of Medicine- Cardiovascular Sciences/Comprehensive Cancer Center



Dr. Soto-Pantoja received his BS in Biology from the University of Puerto Rico Mayagüez Campus and his PhD in Molecular Genetics & Genomics from Wake Forest School of Medicine. Supported by DOD pre-doctoral grant and mentored by Drs. Ann Tallant and Patricia Gallagher. Dr. Pantoja investigated the role of the Renin Angiotensin System in cancer, which served as a basis to launch clinical trials at Wake Forest Comprehensive Cancer Center. He completed a post-doctoral research fellowship with Dr. David D. Roberts in the Laboratory of Pathology of the NCI, NIH funded by a Cancer Research Fellow Training Award where he devoted his efforts to understanding the role of CD47 signaling in cellular stress and as a target for cancer therapy. During his career at NIH he received the NCI Directors Innovation Award, the NIH Fellow Award for Research Excellence and the NIH Postdoctoral Mentorship award recognizing his research and work with trainees. After his training, he received the NCI Transition Career Development Award-K22 and began his independent career as an Assistant Professor at Wake Forest School of Medicine. The research in his lab focuses on mechanisms to prevent chemotherapy-related cardiovascular toxicities, as well as studies examining CD47 as an immunotherapy target in cancer. Dr. Soto-Pantoja's research program serves as a platform to mentor students from diverse levels and backgrounds so they can continue to pursue careers in science.