LSU IMSD

INITIATIVE FOR MAXIMIZING STUDENT DEVELOPMENT

Annual News

2017-2018, Issue 8

Program Staff

Program Director
Graça Vicente, Ph.D.

Co-Program Directors
Isiah Warner, Ph.D.
Marcia Newcomer, Ph.D.

Program Manager & Counselor
Gretchen Schneider, Ph.D., LPC

Message from the Director

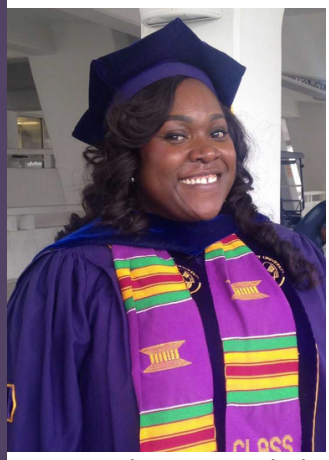
I am delighted to announce that in 2017 the LSU IMSD Program has several former scholars graduate with B.Sc. or Ph.D. degrees! One IMSD graduate scholar, Tyrslai Williams, obtained her Ph.D. in Chemistry in August 2017, and she is now the Assistant Director of Programs at the LSU Office of Strategic Initiatives. Also in 2017, Treva Brown, a former IMSD undergraduate scholar (2009-2012) obtained her Ph.D. in Chemistry from the University of New Orleans. Dr. Brown is now a post-doctoral researcher at the Naval Research Laboratories at NASA Stennis Space Center. Four former IMSD undergraduate scholars obtained their B.Sc. degrees from LSU in 2017, Brittany Frazier, Kaylee Gross, and Hayley Theriot in Biology (May 2017), and Denzel Alexander in Chemistry (December 2017). Denzel was a co-author on a publication that came out in February 2017 in the journal *Langmuir* from the American Chemical Society. Congratulations to all our graduates!

Several IMSD scholars matriculated into Ph.D. Programs in 2017: Leo Fontenot at Louisiana State University, Hailey Theriot at the University of Arkansas, and Brandon Byrd at the University of Connecticut School of Medicine. Our IMSD scholars continue to be recognized at LSU and around the Nation for their outstanding academic and research achievements, with a number of them winning awards in 2017, including a 2017 American Chemical Society Undergraduate Award in Analytic Chemistry (Brea Manuel), 2017 LSU Black Caucus Honors Award (Ashley Augustus and Joselyn Knowling), a LSU Academic Excellence Award (Joselyn Knowing), a 2017 LSU Outstanding SI Leader Award (Malcolm Youngblood), and a 2017 LSU Chemistry James E Coleman Award (Sierra Sterling). Congratulations to all! I am so proud of all our outstanding students and I can't wait to hear more about their achievements in the coming months! I wish you all a successful 2018 and invite you to visit the IMSD Program website (www.lsu.edu/imsd) to read the most recent news about our Program and to find new opportunities and meet new friends.

Geaux Tigers!
Graça Vicente, Ph.D.

2017 ABRCMS Conference, Phoenix, AZ

IMSD Graduate Scholar Earns Ph.D.

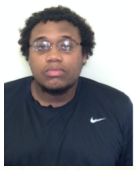


IMSD Graduate Scholar On May 4, 2017, IMSD Scholar Tyrslai Williams successfully defended her Ph.D. dissertation titled "Design, Synthesis and Evaluation of Inovated BODIPY-Peptidic Conjugates toward Biological Application". After earning her bachelor degree from Southern University in Baton Rouge, she entered the LSU Department of Chemistry doctoral program and joined the research group of Dr. Graça Vicente. After graduation, Dr. Williams accepted the position as Assistant Director of Programs with the LSU Office of Strategic Initiatives.

Former IMSD Scholar, Brandon Byrd, co-authored a recent publication that was featured in the HOT article collection for *Organic & Biomolecular Chemistry*. Brandon is currently an MD/PhD student at University of Connecticut School of Medicine.

2017-2018 Scholars

Ashley Augustus
Senior, Biology
Mentor: Dr. Karen Maruska

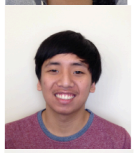


Tahj Delasbour
Sophomore, Mechanical Engineering
Mentor: Dr. Hunter Gilbert

Lauren Jackson
Junior, Biology
Mentor: Dr. J. Michael Mathis

Briasha Jones
Junior, Kinesiology
Mentor: Dr. A. Van Gemmert

Joselyn Knowling
Senior, Biology
Mentor: Dr. S. Jeyaseelan



John Le
Junior, Biology
Mentor: Dr. S. Jeyaseelan

Brea Manuel
Senior, Chemistry & Psychology
Mentor: Dr. Isiah Warner

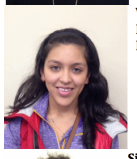
Mallik Mathews
Junior, Kinesiology
Mentor: Dr. A. Van Gemmert

Catherine Morejon-Garcia
Senior, Chemistry
Mentor: Dr. John Pojman

Michelle Opiri
Junior, Biological Engineering
Mentor: Dr. J. Michael Mathis

Tanner Reed
Sophomore, Biochemistry
Mentor: Dr. Marcia Newcomer

Christina Rubio
Junior, Biology
Mentor: Dr. Graça Vicente



Veronica Rubio
Biology
Mentor: Dr. Graça Vicente

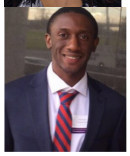
Sierra Sterling
Senior, Chemistry
Mentor: Dr. Isiah Warner

Paris Taylor
Junior, Microbiology
Mentor: Dr. Marcia Newcomer

Amy Turner
Junior, Kinesiology
Mentor: Dr. Emily Qualls-Creekmore

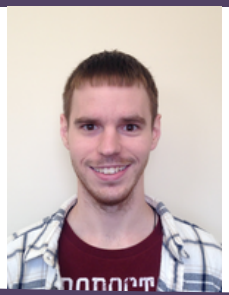
Jessica Usand
Junior, Kinesiology
Mentor: Dr. A. Van Gemmert

Leone Yisrael
Senior, Biology
Mentor: Dr. Fernando Galvez



Malcolm Youngblood
Junior, Biology & Sociology
Mentor: Dr. Graça Vicente

GRADUATE SCHOLARS



Daniel LaMaster
Chemistry

Research Advisors:
Dr. Graça Vicente
& Dr. K. Lopata

Stephanie Vaughan
Chemistry

Research Advisor:
Dr. Isiah Warner

2017 HONORS & AWARDS

Ashley Augustus- Black Caucus Honors Award

Joselyn Knowling- Black Caucus Honors Award and the Academic Excellence Award

Brea Manuel- 2017 ACS Undergraduate Award in Analytical Chemistry

Sierra Sterling- Dr. James E Coleman Chemistry Scholarship

Malcolm Youngblood- Outstanding New SI Leader Award

Dean's list- - John Le, Christina Rubio, Catherine Morejon-Garcia, Lauren Jackson

SCHOLAR GRADUATES

Spring 2017
Brittany Frazier
Kaylee Gross
Hayley Theriot

Summer 2017
Tyrslai Williams, Ph.D.

Fall 2017
Denzel Alexander

IMSD Scholars Attend National Conference

In November 2017, IMSD scholars John Le, Michelle Opiri, Lauren Jackson, Paris Taylor, Briasha Jones, Brea Manuel, Joselyn Knowling, Jessica Usand, Daniel LaMaster, and Catherine Morejon-Garcia attended the 2017 Annual Biomedical Research Conference for Minority Students in Phoenix, Arizona. More than 4,050 individuals attended the conference this year, including about 2,100 undergraduate and post-baccalaureate students, 450 graduate students and postdoctoral scientists, and 1,500 faculty, program directors and administrators. Students come from more than 350 U.S. colleges and universities to participate and network.

Past to Present: *Where are they now?*

Treva Brown, Ph.D.

Physical Chemist
Naval Research Laboratory
NASA Stennis Space Center

LSU IMSD Scholar: 2009 – 2012

My journey as an undergraduate scholar at Louisiana State University was a very fruitful experience! Soon after joining the LA-STEM and IMSD programs, I began undergraduate research as a freshman and gained extensive experience in atomic force microscopy (AFM) and scanning probe lithography (SPL) to study organic thin films of n-alkanethiols. As a result, I had the wonderful opportunity to present my research and win many presentation awards at conferences across the nation which included ACS, SERMACS, NOBCChE, and Triple EX. Through my participation in the IMSD Scholars program, I was able to understand, recognize, and emphasize the principles of leadership, scholarship and success cultivated by my IMSD mentors, Dr. Gretchen Schneider and Dr. Graça Vicente, who expressed the importance of striving for excellence in mentoring, education, research, and community outreach.

I graduated with my Bachelors of Science in Chemistry from LSU in December 2011 and decided to continue my education as a doctoral student at the University of New Orleans, where I was awarded the prestigious Louisiana Board of Regents Graduate Fellowship. My area of study was in inorganic nanomaterials, with an emphasis on nanomechanical investigations and characterizations using atomic force and transmission electron microscopy (AFM and TEM). My drive and determination led me to begin outside collaborations with Tulane University and LSU – Baton Rouge that subsequently enhanced atomic force microscopy (AFM) capabilities to the chemistry department at UNO. Not only did that help to propel my research, but these skills were also utilized to assist others in their research endeavors. Moreover, I also served as president of the Graduate Chemical Society where one of my main objectives was making the program committed to outreach by personally recruiting undergraduate and graduate students to participate in events that promoted STEM awareness and provided for the exposure of elementary school children to the excitement of STEM disciplines. Furthermore, I was also a founding member of the Alpha Chi Sigma chemistry fraternity at UNO, Delta Eta Chapter, where I also implemented volunteer outreach activities for chemistry students. Lastly, I played a prominent role in getting undergraduates involved in research as well as encouraging them to continue in the pursuit of further research opportunities past their undergraduate careers.

I received my Doctoral degree in Chemistry from the University of New Orleans in December of 2017 and recently accepted a position as a physical scientist for the Naval Research Laboratories at NASA Stennis Space Center (Stennis, MS) and am enjoying every moment of it! Remember, the sky is NEVER the limit – REACH FOR THE GALAXIES!!!

Community Outreach

IMSD Scholars volunteered at the 29th annual Super Science Saturday on October 29, 2019. The event consisted of 19 stations with activities aimed at children from kindergarten through high school. Super Science Saturday incorporated aspects of National Chemistry Week, which was themed "Chemistry Colors Our World." Many of the booths provided candy and other materials to participants visiting the booth or taking part in an experiment. The event attracted over 950 K-12 students from the community and promotes excitement and creative thinking in science and technology. Other outreach activities by IMSD scholars include tutoring and demonstrations at Baton Rouge K-12 schools.

Upcoming Seminars

Friday, February 2, 2018
2:30 pm; 210 Choppin Hall
Research Opportunities at the University of Minnesota
Philippe Buhlmann, Ph.D.
3M/Alumni Professor, Distinguished University Teaching Professor
Director of Graduate Studies
Department of Chemistry
University of Minnesota

Friday, February 9, 2018
3:30 pm; Life Sciences Annex Auditorium (A-101)
"Kinetically Speaking: Move at Your Rate"
Emanuel Waddell, Ph.D.
Associate Dean, College of Science
Associate Professor, Department of Chemistry
University of Alabama in Huntsville
NOBCChe President

Friday, March 2, 2018
2:30 pm; 210 Choppin Hall
Ethics Seminar
Arthur Penn, Ph.D.
Professor, Department of Comparative Biomedical Sciences
School of Veterinary Medicine
Louisiana State University

Friday, March 16, 2018
2:30 pm; 210 Choppin
"Thinking about Thinking: A Tool for Success"
Gloria Thomas, Ph.D.
Director, Center for Academic Success
Louisiana State University

Friday, April 13, 2018
2:30 pm, 210 Choppin
IMSD Program goals, outcomes and evaluation
Eugene Kennedy, Ph.D.
Associate Professor
LSU School of Education

Thursday, May 10, 2018
2:30 pm, 210 Choppin
Avery August, Ph.D.
Vice Provost for Academic Affairs
Professor of Immunology
Department of Microbiology and Immunology
Cornell University College of Veterinary Medicine
Cornell University

2017-2018 Publications by IMSD Scholars

Williams, T. M., Sable, R., Singh, S., Vicente, M. G. H., Jois, S. D. (2018). Peptide ligands for targeting the extracellular domain of EGFR: Comparison between linear and cyclic peptides. *Chem Biol Drug*, 91, 605-619.

Zhai, X., **Alexander, D.**, Derosa, P., Garno, J. C. (2017). Distance-Dependent Measurements of the Conductance of Porphyrin Nanorods Studied with Conductive Probe Atomic Force Microscopy. *Langmuir,* 5, 1132-1138.

Zhao, N., **Williams, T. M.**, Zhou, Z., Fronczek, F. R., Sibrian-Vazquez, M., Jois, S. D., Vicente M.G.H. (2017). Synthesis of BODIPY-Peptide Conjugates for Fluorescence Labeling of EGFR Overexpressing Cells. *Bioconjugate Chemistry*, 28(5), 1566-1579.