



Research Initiative for Scientific Enhancement (RISE)

College of Arts and Sciences | Fall 2014

Farewell to Michelle



In this edition of the newsletter, we bid a fond farewell to Michelle Aznarez, Technical Coordinator. Michelle, who graduated in 2007 with a biology degree, has been with the MARC and RISE programs since 2004, starting as a work study student. During the past 10 years of dedicated and exemplary service to these programs, Michelle has been a constant source of support. Her loyalty, dedication, and interpersonal and negotiating skills have made her an invaluable asset to the success of the MARC and RISE programs as well as to the institution at large. A consummate professional, who goes above and beyond what is expected, Michelle's competence and selflessness has touched everyone she came in contact with during her time at Barry. In 2013,

Michelle was formally recognized by the university community with receipt of the Sr. Jeanne O' Laughlin Administrative Professional Award for outstanding leadership and professional excellence in the area of administrative support.

Furthermore, Michelle has been a role model for students in the program and leads by example. As a full-time employee at the university, she completed her master's degree in Exceptional Student Education in 2011 and is in the process of completing requirements for a Ph.D. in Educational Leadership with a focus on special education. She will now gain practical experience in the field as she assumes the position of special education teacher for autistic children at a neighboring K-12 school.

We are incredibly grateful for Michelle's dedication and many contributions to our students, academic department, and our Barry community at large. We wish her the very best as she enters this new chapter in her career. Good luck Michelle! You will truly be missed.

ABOUT THE PROGRAMS

The RISE program is supported by the National Institutes of Health (NIH) to provide research opportunities for students. RISE students major in biology and chemistry and are paid an hourly wage to carry out research with faculty on campus during the semesters and off campus during the summer.

The RISE program supports the ROADS Research Club. The club provides authentic group research experiences for freshmen and sophomores in the sciences. Contact Dr. Michael Robinson at 305.899.4930 or mprobinson@barry.edu or visit www.barry.edu/mbrsrise/programactivities/roads.htm. New students can apply to ROADS through their MyBarry account.

Contact Dr. Flona Redway at 305.899.3542 for further information or visit www.barry.edu/rise

Welcome New RISE Students



Pictured from left to right: Kevin Williams (Biology - sophomore) , Kamren Livingston (Biology - sophomore) Diana Cordero (Biology/Chemistry - sophomore)

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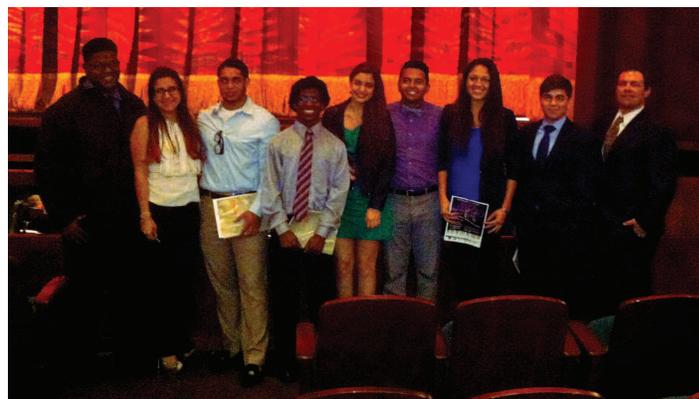
ROADS Research Club: Building Experience in Research and Beyond



Fabio Frech interviewed about ROADS's research.

During the 2013-14 academic year, the students in the ROADS research club worked on their investigation of the reliability of the vocalizations by male house crickets, *Acheta domesticus*. They specifically tested if components of the chirp made by males were correlated with male symmetry. Symmetry is related to developmental stability and is an important indicator of a male's genetic quality. If females prefer mates with higher genetic quality and females use the vocalizations by potential mates to choose among them, one would predict that some aspects of the chirps would be correlated with symmetry thereby allowing females to determine a male's quality remotely. While completing this project, the mostly freshman club members developed basic research skills including morphometric data collection and acoustical analysis. The club members collected and analyzed sufficient data over the year so that in the spring they were able to submit three abstracts for presentations at local and statewide scientific meetings. In February, many ROADS members attended the Fourth Annual Florida Undergraduate Research Conference at Florida International University and presented their research as a poster. Presenters of the poster titled, "Are vocalizations by male house crickets (*Acheta domesticus*) an honest signal of genetic quality?" included Vania Arboleda, Diana Cordero, Fabio Frech,

Kamren Livingston, Shaynell Monreal and Andrea Roberti. Their co-authors were Raynelle Salters, Norma Robles, Amanda Watson, Bertina Telusma, Brittany Suarez-Vega, Domingo Sosa, Andrea Smith, Kamilla Irgasheva, Edgar Garcia, Reynaud Eugene, Paytyn Corkran, Gina Chavez, Tamana Azimi, and Dr. Michael Robinson. In March, Kamren Livingston traveled to the Indian River State College in Fort Pierce to present the club's research at the 78th Annual Meeting of the Florida Academy of Sciences. His oral presentation was titled, "Do male house crickets (*Acheta domesticus*) communicate honestly to females?" and was co-authored by the same students. Finally, ROADS presented their work at Barry University's Sixth Annual STEM Symposium; Fabio Frech was the lead author with the same co-authors as previously mentioned. Fabio along with Kamren Livingston and Dr. Robinson were also interviewed and the ROADS project featured in a short documentary about Barry's STEM Symposium. Finally, eight ROADS members attended an April performance of the opera Tosca at the Adrienne Arsht Center as part of ROADS' cultural experiences.



Raynelle Salters, Diana Cordero, Domingo Sosa, Kamren Livingston, Andrea Roberti, Edgar Garcia, Vania Arboleda, Fabio Frech and Dr. Robinson at Tosca.



ROADS club members at FURC



"Being in MARC has taught me to never give up no matter how hard the circumstances are. The support that I have received from MARC is like no

other. I will miss the family that was created."
 Launie Bruno (MARC '14)

Alumni Profile – Odaine N. Gordon, PhD (RISE ‘08)



Odaine N. Gordon, PhD

I owe the MBRS-RISE program for fostering my interest in a research career and for providing many of the tools and opportunities that have allowed me to progress this far. I joined RISE during my junior year and transferred to Barry specifically

for the opportunity to be a part of the program. During my two years in the program, I conducted research under the supervision of Dr. Laura Mudd and participated in a summer internship program at the University of Wisconsin. I also had the opportunity to present my research findings at several national meetings. Throughout this process I also gained experience in many other areas pertinent to laboratory research, I networked with outside laboratories and universities, I received expert career counseling and mentorship, and I established many great friendships. I graduated from Barry with a degree in Chemistry.

The training I received through the RISE program formed the basis of my admission to the graduate school at Vanderbilt University. As a student in the pharmacology program, I studied the metabolism and bioactivity of curcumin, a natural chemopreventive agent. My graduate work was funded through a pre-doctoral fellowship award from the NIH, and resulted in multiple publications. In addition to my academic work, I served in leadership roles in several student organizations, including president and vice president of the Organization of Black Graduate and Professional Students, and vice president of the Vanderbilt Aids Outreach Organization. Throughout my tenure at Vanderbilt, I relied heavily on my experiences from having been part of RISE, from laboratory techniques I had learned, to other training in scientific writing and presentations. I completed my graduate training in May of this year and continue to extend my graduate research as a postdoctoral fellow in the same lab.

My research in the RISE program was aimed at understanding the molecular basis of Alzheimer's disease (Barry U, with Dr. Mudd) and glioblastoma (U. Wisconsin, with Dr. John Kuo) – both incurable diseases. Through these experiences I recognized, that while basic research into disease etiology is critical, it is also only an initial step in a long process that ultimately aims to deliver tangible tools for diagnosis, prevention, and treatment. Those experiences shaped my research interest into a desire to participate directly in the development of new drugs to cure these diseases. My decision to join Vanderbilt and pursue a pharmacology degree represented an important step toward this goal. My long-term career goal is to pursue a research position in preclinical drug development.



“All of our dreams can come true, if we have the courage to pursue them,” – Walt Disney. My dream is to investigate possible cures and treatments that can improve the quality of life for those with disease. The MBRS RISE & MARC

U*STAR programs have given me the courage to pursue my dream. Being part of these programs at Barry University has blessed me with a family; a family that has taught me, guided me, and pushed me to always go further. Without the incredible staff, faculty, and resources I would have not received the opportunities and knowledge that have shaped me. Not only did this program spark and enhance my love and passion for research, but I discovered who I am. The programs enriched me with knowledge and valuable experiences, which will surely help me in my ultimate goal of becoming a biomedical researcher. There are not enough words to express the gratitude and love I have for the family I have in the RISE & MARC programs as well as Barry Nicole Hope Lopez (MARC '14) Ph.D. Program, Georgia Regents University, GA

Student Accomplishments

Diana Cordero (RISE), Precious de Verteuil (MARC '14), Talia Guardia (RISE '14), Kamren Livingston (RISE), Jovans Lorquet (RISE), Maria Martinez (MARC '14), and Bertina Telusma (RISE) were placed on the Dean's List in recognition of their academic achievement; earning a 3.5 or greater GPA during spring 2014 term.

Precious de Verteuil (MARC '14), Shanika Kingston (RISE), and Nicole Lopez (MARC '14) received the first place award in biology at the Sixth Annual Science Technology Engineering and Math (STEM) Symposium on April 16, 2014 at Barry University. In addition, KeiAuynndria Edwards (RISE), Talia Guardia (RISE '14), and Alice Nakasone (RISE) received honorable mention for their poster presentation.



Precious de Verteuil (MARC '14), Talia Guardia (RISE '14), and Nicole Lopez (MARC '14) were recipients of the Outstanding Biology Award, May 2, 2014.



Precious de Verteuil (MARC '14) received the second place award at the Ninth Annual Southeast Cell Science Undergraduate Research Symposium on April 26, 2014 at St. Thomas University for her oral presentation titled, "The

importance of voltage-operated calcium channels (VOCC's) in astrogliosis." This was in recognition of her summer research at the University at Buffalo, Buffalo, New York in the summer of 2013.

Khalid El-Amin (MARC '14) received the Philanthropy Award from Barry University Student Alumni Association, the President's Award, Senator of the Year Award, and was recognized as the Student Organization Member of the Year from Barry University's Division of Student Affairs for his outstanding leadership and service to the Barry University community in April 2014. Khalid also received the Excellence in Leadership Award from the Division of Student Affairs for his outstanding leadership and service that exemplifies Barry University's mission and core commitments and positively contribute to the Barry University local and global communities, April 2014. He also had the honor of giving the Rose and Candle graduate speech on May 2, 2014.



Talia Guardia (RISE '14) was the recipient of the College of Arts and Sciences Dean's Award in Mathematics and Sciences for the 2013-2014 academic year.



Shanika Kingston (RISE) and Alice Nakasone (RISE) received travel awards to attend the Society of Toxicology's three-day Undergraduate Education Program at the Annual Meeting in Phoenix, Arizona on March 22-24, 2014.

Nicole Lopez (MARC '14) received second place award at the Second Annual Life Sciences South Florida STEM Undergraduate Research Symposium on April 12, 2014 at Florida International University for her poster presentation titled, "Whitefly vector dietary conditions associated with the inoculation of foregut Borne Criniviruses." This was in recognition of her summer research at the University of California, Riverside, California, in the summer of 2013.

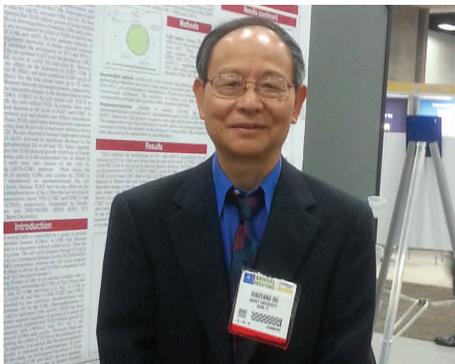


Jovans Lorquet (RISE) and David Novo (RISE) were inducted into Sigma Xi, The Scientific Research Honor Society on April 24, 2014.



Mariana Ruiz (RISE) and Kamren Livingston (ROADS) received the Florida Museum of Natural History Shadowing Scholarship to shadow and visit with collection managers, researchers, and graduate students at the University of Florida, all focused on biodiversity research and potential careers in the biological sciences on April 17-19, 2014.

Faculty Accomplishments



Dr. Tang Hu at the AACR Conference

Dr. Tang Hu, professor of biology, published one paper titled, "The role of cell cycle regulatory molecules in retinoic acid- and vitamin D3-induced differentiation of Acute Myeloid

Leukemia" (Cell Proliferation 47: 200-210, 2014) and presented a poster titled, "Transforming growth factor-beta (TGF- β)-mediated growth inhibition of human myeloid leukemia cells is CAK-independent but links to cdc25c-CDK1 pathway" at the American Association of Cancer Research (AACR) Annual Meeting in San Diego, California on April 5-9, 2014. An invited speaker, Dr. Hu presented his research data titled, "Unique role of cdc2 and pRb in the cell cycle control of human myeloid leukemia cells" to a group of faculty and graduate students in the College of Life Science, Nanjing Normal University on June 10 (Nanjing,

Jiangsu, China, June 9-10, 2014). Dr. Hu was appointed to the Editorial Board, Journal of Hematology, Blood Transfusion and Disorders (HBTD) on April 30, 2014 (www.heraldopenaccess.org/herald/eb/Hematology/). He also reviewed two manuscripts for the journal of Cellular and Molecular Life Sciences (MS ID: CMLS-D-13-009## and CMLS-D-13-009##-R1).

Dr. George Fisher, professor of Chemistry, presented a poster titled, "Quantification of D-Asp in nervous tissues of the frog *Rana pipiens* by HPLC" at the 247th ACS national meeting, Dallas, TX, March 17, 2014.

Student Attendance & Presentations at Scientific Meetings



Fourth Annual Florida Undergraduate Research Conference, Miami, Florida on February 21-22, 2014. MARC students Khalid El-Amin and Nicole Lopez, RISE students Mariana Ruiz, Alice Nakasone, Jovans Lorquet, Bertina Telusma, and Shanika Kingston and ten ROAD club members made poster presentations.

78th Annual Florida Academy of Sciences, Saint Leo, Florida on March 19-21, 2014. ROADS club member Kamren Livingston made an oral presentation.

53rd Society of Toxicology Annual Meeting and ToxExpo, Phoenix, Arizona on March 23-27, 2014. RISE students Alice Nakasone and Shanika Kingston received travel awards to attend the Undergraduate Education Program.



28th National Conference on Undergraduate Research (NCUR), University of Kentucky, Kentucky on April 3-5, 2014. RISE students Shanika Kingston and Alice Nakasone made poster presentations.

American Association for Cancer Research (AACR), San Diego, California on April 5-9, 2014. RISE student Talia Guardia attended the conference.



Second Annual Life Sciences South Florida STEM Undergraduate Research Symposium, Miami, Florida on April 12, 2014. MARC students Precious de Verteuil (oral) and Nicole Lopez (poster) made presentations.

Barry University hosted the **Seventh Annual Science, Technology, Engineering and Math (STEM Symposium)** on April 16, 2014. Undergraduate students presented posters related to their past and current research in biology, chemistry, computer science, information technology, mathematics, psychology and physics. There were 50 posters, a total of 15 by MARC, RISE and ROADS students, and close to two hundred and fifty participants and attendees.

Ninth Annual Southeast Florida Cell Science Undergraduate Research Symposium, Miami, Florida on April 26, 2014. Precious de Verteuil (MARC) made an oral presentation.



114th American Society for Microbiology, Boston Massachusetts on May 17-20, 2014. Alice Nakasone (RISE) made a poster presentation with past undergraduate Jarred Fiedler (B.S. Biology '13) on their 2013 summer research work titled,

"Quantitative and Qualitative Analysis of Biofilm Production in *S. aureus*." Daniel Packert (College of Nursing and Health Sciences) also attended the meeting.

Alumni Updates

Lina Arencibia Ortega, MD (MARC/RISE '07) completed the requirements toward the MD program at Case Western University, CT in May 2014 and is now an Internal Medicine Resident at the University of Massachusetts, Massachusetts.

Isa Arias-Munoz, PhD (MBRS '00) completed the requirements toward the Ph.D. in Infectious Diseases and Immunity at the University of California, Berkeley, CA in May 2014.

Monica Barreto, MS (MARC '12) is a second year Clinical Psychology Ph.D. student at Western Michigan University, MI. Over the summer Monica received a graduate assistantship in the Social Work department at WMU and is conducting research on dualism theory and its effects on mental health and minority populations.

Shane Bobart, MD (RISE '10) completed the requirements toward the MD at St. Georges University. He will start his Internal Medicine Residency, Cleveland Clinic, FL in July 2014.

Collins Boston, MS (MARC '05) completed the requirements toward the M.S. in Bioanalytical Chemistry from Florida Atlantic University, FL in May 2014.

Maria Teresa Perez Cardenas (RISE '09) is a fourth year Ph.D. chemistry student at the University of Maryland, MD. She was awarded the NSF and the French Ministry of Higher Education and Research (MESR) support to conduct research at the Centre Interdisciplinaire de Nanoscience de Marseille in France. Maria is also actively involved in organizing an initiative to incorporate a professional development program in chemistry and biochemistry Ph.D. curriculum and will be launching an academic mentoring program to empower minority undergraduate students in the STEM field at the University of Maryland.

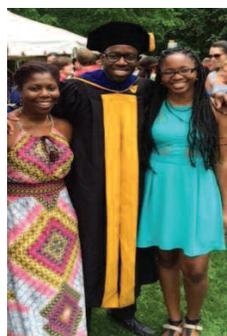
Michelle Sullivan-Coleman, MD (RISE '07) completed the requirements toward the MD program at Vanderbilt University, TN in May 2011 and is now a second-year Ph.D. student in cancer biology at the University of North Carolina, North Carolina.

Precious de Verteuil (MARC '14) is enrolled in the Bioinformatics Ph.D. program at the University of Oregon, OR in the summer of 2014.



Salihah Dick-Sere (MARC/RISE '05) will defend her Ph.D. thesis this fall semester as part of the requirements toward her MD/Ph.D. at Weill Cornell

Medical College, NY. Salihah married Yves Sere in July 2014.



Khalid El-Amin (MARC '13) is enrolled in the Personnel and Human Resource Development MS program at Illinois Institute of Technology, IL in the fall of 2014.

Sarah Garcia, MS (MARC '09) is enrolled in the Educational Leadership Ph.D. program at Barry University, FL, in the summer of 2014.

Odaine Gordon, PhD (RISE '08) completed the requirements toward the Ph.D. in Pharmacology from Vanderbilt University, TN in May 2014.

Danielle Jackman, MS (MARC '09) will defend her Ph.D. thesis this fall semester toward her doctoral degree in Applied Developmental Science, Colorado State University, CO.



Alton Johnson (RISE '11) is a third-year podiatric medical student at Kent State University

College of Podiatric Medicine, Cleveland, OH. Alton and his wife Nathalie are the proud parents of baby Amaya Azaelle Johnson, born May 2014.



Alison St. Paul (RISE '08) with Mallory at graduation

Mallory Jorif, MD (RISE '08) completed the requirements toward the MD at Meharry Medical College, TN in May 2014.

Nicole Hope Lopez (MARC '14) is enrolled in the Biomedical Sciences Ph.D. program at Georgia Regents University, GA in the fall of 2014.



Davecia Ragoonath-Cameron, MS (MARC/MIRT '02) is Managing Editor, Clinical Care Options and has two beautiful kids, Kai and Kira.



Lenore Polo Rodicio, PhD (MARC '94) has been promoted to Provost,

Academic and Student Affairs, Miami-Dade College and welcomed baby Gaby Lu Rodicio, in February 28.

Alison St. Paul, DMD (RISE '08) is in her second-year of residency at University of North Carolina, NC.

Blandine Victor (RISE '11) is enrolled in the Infectious Disease and Microbiology MS program at the University of Pittsburgh, PA in the fall of 2014.

Summer Research Presentations Series, Fall 2014

Each summer RISE students carry out biomedical science research at national and international research intensive laboratories for 8-12 weeks. During the fall semester students share their experiences through our "Summer Research Presentation Series." This Series begins on **Thursday, September 4, 2014** at noon in NHS 336. Presentations will run alternatively on Thursdays and Fridays (please see schedule below).

Thursday, September 4, 2014

Kevin Williams (RISE-Biology)

"The skeletal muscle regenerative process of adult wild type *Danio rerio* Zebrafish"

Barry University, Florida

Bertina Telusma (RISE-Biology)

"Multiple fluorescent labeling of proteins involved in meiotic silencing by unpaired DNA (MSUD)"

University of Missouri, Missouri

Friday, September 12, 2014

Alice Nakasone (RISE-Biology)



"Stereotaxic coordinates of the brain of guinea pigs"

University of Florida, Florida

Mariana Ruiz (RISE-Biology)

"DNA structure-related sequence features in prokaryotes, fungi, and large viruses"

University of Georgia in Athens

Thursday, September 18, 2014

KeiAuyntria Edwards

(RISE-Biology)



"Enhancement of G α expression with co-expression of Ric8 on a baculovirus genome"

University of Michigan, Michigan

Shanika Kingston

(RISE-Biology/Chemistry)



"Dioxygen activation by mononuclear non-heme oxygenases the corresponding model complexes" Boston University, Massachusetts

Friday, September 26, 2014

Jovans Lorquet (RISE-Biology)

"The endoplasmic reticulum chaperon protein calreticulin for the topical treatment of corneal wounds"

New York University, New York

David Novo (RISE-Biology)

"5-HT_{1A} receptor coupling following adolescent drug exposure"

University of California-Irvine, California

Thursday, October 2, 2014

Van Williams (Biology)

"Cell-enriched Fat Graft's effect on adipose volume retention"

University of Pittsburgh School of Medicine, Pennsylvania

Victoria Hoelscher (Biology)

"Genetic regulation of the temperature-dependent egg-laying rate in *C. elegans*"

Stanford University, California



"The MBRS RISE program has taken my education to a whole new level. It has provided me

with the experience and training I needed to comfortably pursue a postgraduate education. Without the program I would not be in the career path I am in right now, and for that I am extremely grateful."

Talía Guardia (RISE '14)



"The fastest two years of my life were with the MARC program. Soak everything in, it's the best

opportunity if someone is considering graduate studies." Khalid El-Amin (MARC '14) MS Program, Illinois Institute of Technology, Illinois



"The MARC program not only helped me be a better student but a better person. Getting into

graduate school is the first step in my future, and I could not have done this on my own."

Precious de Verteuil (MARC '14) Ph.D. Program, University of Oregon, Oregon

Barry University

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Live
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RISE PROGRAM



End of Semester Party

Students and faculty ended the academic year with the annual end of semester party on April 29, 2014. During this event we acknowledged the students' graduate and summer research internship acceptances, and faculty support of the MARC and RISE programs.

Recent Graduates - May 2014

Bachelor of Science Degrees

De Verteuil, Precious (MARC - Biology)

El-Amin, Khalid (MARC - Psychology)

Guardia, Talia (RISE - Biology)

Lopez, Nicole (MARC - Biology)

Martinez, Maria (MARC - Psychology)