



**WINSTON  
SALEM  
STATE  
UNIVERSITY**  
**BIOMEDICAL  
RESEARCH  
CENTER**



# BIOMEDICAL RESEARCH INFRASTRUCTURE CENTER

Volume 1, Issue 3

WINSTON-SALEM STATE UNIVERSITY

Fall 2013 Newsletter

## A MESSAGE FROM THE DIRECTOR...

For almost two decades, the Winston-Salem State University (WSSU) Biomedical Research Infrastructure Center (BRIC) has served as a hub for biomedical, behavioral and translational research for students, faculty and health professionals focusing mainly on neuroscience, drug addiction, cancer, diabetes and cardiovascular diseases as related to health disparities. The WSSU BRIC fosters collaborative, multidisciplinary research and applies several strategies to improve health outcomes and reduce health disparities among vulnerable populations and underserved communities. Located in downtown Winston-Salem, the BRIC shares a basic laboratory research building with Wake Forest University Health Sciences (WFUHS) at the Piedmont Triad Community Research Center (PTCRC) where collaboration and co-training with our partner institution is possible. The MARC U\*STAR program began in June, 2007 with a cohort of two students as its first graduates in 2009 and the MBRS-RISE program began in August of 2010 with a cohort of 6 students as its first graduates in 2012. These two student-centered programs graduated a total of 23 scholars in the areas of biomedical and behavioral sciences. Currently, 10 scholars are in PhD programs at various T32 pre-doctoral program institutions, 1 is in a PharmD program, 8 are in Master's programs and 2 are in MPH programs, all in the area of biomedical, behavioral or health sciences. While in the programs, these scholars co-authored a total of 6 peer reviewed publications with their faculty preceptors, attesting to the impact of the NIGMS-TWD programs on the research environment at WSSU. Through our dedication to the mission of promoting minority health and improving the quality of education, I believe the Center will continue to facilitate and expand the research infrastructure of WSSU and the Piedmont Triad area.



Dr. Azeez Aileru, Director

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The WSSU Minority Access to Research Careers Undergraduate Student Training in Academic Research (MARC U\*STAR) and the Minority Biomedical Research Support-Research Initiative for Scientific Enhancement (MBRS-RISE) Programs are supported by the National Institutes of Health (NIH), National Institute of General Medical Sciences' Training, Workforce Development, and Diversity (NIGMS-TWD). Both programs are designed to strengthen the academic and research credentials of undergraduate students to facilitate their entry into competitive biomedical and behavioral science graduate programs.

Students from various academic departments and majors, including Biology, Chemistry, Exercise Science, Molecular Biology and Psychology participate in the MARC and RISE programs. The programs nurture undergradu-

Minority Access to Research Careers

**MARC U\*STAR**  
Undergraduate Student Training in Academic Research

ate students in a way that induce their interest in and readiness for research careers in the biomedical and behavioral sciences.

Participants from both programs have been involved in a variety of summer research internships, such as the DSIP at Johns Hopkins University, the SURIP at Penn State University College of Medicine, the SCTRIP at Harvard Medical School, the SMART at Baylor College of Medicine, the Bio-STEP at Yale University School of Medicine, the SROP at Duke University, and EICS at WFUHS. Other professional development activities include Graduate Record Examination (GRE) preparation, publication of their research findings in scientific journals, experience in giving professional presentations at national scientific meetings, weekly seminars, as well as intramural research.

## MEET THE MARC & RISE SCHOLARS



*Georges I. Guillaume*

**Georges Guillaume** was a RISE Scholar. He is a senior Chemistry major. Dr. Charles Ebert, in the Department of Chemistry, has been his mentor for the past two years. Their research project examined “Keratin and Nerve Cell Proliferation and Migration.” Mr. Guillaume won the award for outstanding poster presentation in the immunology category at the 12th Annual Biomedical Research Conference for Minority Student (ABRCMS) in San Jose, California (See Pg. 6). Mr. Guillaume attended the 2013 Summer Clinical Translational Research Program (SCTRP) at Harvard Medical School in Boston, Massachusetts.

**Taylor Harris** was a RISE Scholar from the Fall of 2011 to December 2012. She is a senior, majoring in Chemistry. During the Fall 2012 semester, her mentor was Dr. John Yi, in the Department of Chemistry. They examined the molecular dynamics of 3,4-Methylenedioxyamphetamine (MDA) analogous to Ecstasy (drug). Ms. Harris was a part of the 2013 Summer Research Experience for Undergraduates Program in the Department of Chemistry and Biochemistry at Miami University in Oxford, Ohio. This program is sponsored by the National Science Foundation.



*Taylor Harris*



*Edie Pettiford*

**Edie Pettiford** was a MARC Scholar. She is a senior Exercise Science major and worked with Dr. Manju Bhat, in the Department of Life Sciences. The title of her research project was “Propofol Induced Pain: Role of Transient Receptor Potential (TRP) Channels.” The overall goal of her project was to study the effect of propofol (commonly used anesthetic drug) on sensory neuronal calcium signaling pathways. She attended the 2013 Summer Research Internship Program at the University of Virginia School of Medicine. Ms. Pettiford will be graduating in December, 2013.

## MEET THE MARC AFFILIATE SCHOLARS



*Brittany Cleckley*

**Brittany Cleckley** received a BS degree in Biology, in May, 2013. In Spring 2013, she worked with Dr. Nickolay Hristov at the Center for Design Innovations (CDI) and was able to incorporate her love for the arts. The title of their research project was “The Effect of Improvisational Dance on People with Parkinson’s Disease.” During the summer, Ms. Cleckley auditioned with the Alvin Ailey American Dance Theater Company in New York City.

**Ashley Moore** completed her BS degree in Biology at WSSU with a minor in Neuroscience from Wake Forest University (WFU) in Summer 2013. Dr. David Cline and Dr. JaNae Joyner have been her mentors since 2010. Mrs. Moore has been involved with two ongoing research projects. Her first research project identified undiagnosed hypertensive patients at the emergency department and determines the best way to treat them. The second research project focused on hypertensive emergency department patients and their feelings about their health as related to hopelessness in comparison to other community members. In Fall 2013, Mrs. Moore will begin the WFU Master’s of Arts program in Bioethics.



*Ashley Moore*

## MEET THE MARC & RISE GRADUATES



*Domonique Battle*

**Domonique Battle** was a RISE scholar first and then became a MARC Scholar. She received her BS degree in Biology in May, 2013. Dr. Stephanie Dance-Barnes was her mentor for the past two years. Together, they investigated the anticancer effects of the toxins produced by select bacteria on the human ductal breast epithelial tumor cell line (T47D) and Jurkat cells (T cell leukemia). During the summer of 2013, Ms. Battle returned to Johns Hopkins University to continue working with Dr. Xuhang Li investigating the possible mechanisms and direct effects of *Garcinia buchananii* as a cholera toxin-induced antidiarrheal agent.

**Jamila Green** was a MARC Scholar. She graduated in May 2013 with a BA degree in Psychology. She worked with Dr. Naomi Hall-Byers in the Department of Psychological Sciences. Her research project was titled "Reality Television: A Current Component in African Americans Female Empowerment." This past summer, she worked with Dr. Dawn Henderson in her community psychology lab at WSSU. In Fall 2013, Ms. Green will matriculate into the Master's of Arts program in Community Social Psychology (CSP) at the University of Massachusetts Lowell.



*Jamila Green*



*Micha Myers*

**Micha Myers** was a MARC Scholar. She obtained her BA in Psychology and Healthcare Management, in May 2013. Her research mentor was Dr. David Mount who is the Program Director of the Maya Angelou Center for Health Equity at Wake Forest University. The title of her research project was "Assessing the Feasibility for Developing a Mild Cognitive Impairment Reduction Program." Ms. Myers continues her community-based participatory research with Dr. Mount regarding diabetes and neurocognition and will be actively pursuing her PhD in Clinical Health Psychology in 2014.

**Manuela Rigaud** was a MARC Scholar and graduated May 2013 with a BA degree in Psychology. Dr. Christopher Stanley in the Department of Psychological Sciences was her mentor. The crux of Ms. Rigaud's research project was to attempt to ascertain which coping method (e.g., emotion- or problem-focused strategies) athletes employ after an injury. She returned to College Park, Maryland to be a part of the 2013 University of Maryland Summer Training and Research (UMSTAR) Program at the School of Public Health. In Fall 2013, Ms. Rigaud will begin the MA degree program in Developmental Psychology at the Teachers College, Columbia University in New York City.



*Manuela Rigaud*



*Jatyra Rivers*

**Jatyra Rivers** was a MARC Scholar. She received her BS degree in Biology in May 2013. Dr. Stephanie Dance-Barnes, in the Department of Life Sciences, was her mentor. Her research project involved the "Correlation between Oral Contraceptives and Breast Cancer." Ms. Rivers will matriculate into the Master of Science degree program in Public Health at UNC-Charlotte starting in Fall, 2013.

**Ashley Tucker** was a RISE Scholar. In May 2013, she obtained a BA degree in Psychology. Her mentor was Dr. Ha Nguyen in the Department of Family & Community Medicine at Wake Forest University School of Medicine. Their project examined the associations of work stress with depressive symptoms and anxiety in farmworkers in eastern North Carolina. Ms. Tucker is participating in a research internship at the WSSU Center for Community Safety in the area of Organizational Development which she plans to continue in Fall 2013.



*Ashley Tucker*

## FALL 2012 & SPRING 2013 SEMINAR SERIES

The Seminar Series was held on Wednesday afternoons, from 5:00-6:15pm during the Fall and Spring semesters. Principal Investigators, faculty and staff from WSSU and several graduate schools shared information on current research projects, graduate school admission and future careers. A few of the presenters spoke about their own personal journeys.

The Opening Session for the Fall 2012 Series took place on September 5th. **Dr. Azeez Aileru** and **Dr. Shea Gilliam-Davis** welcomed the returning MARC and RISE Scholars.

**ON SEPTEMBER 12TH**, WSSU's **Dr. Manju Bhat**, who is an Assistant Professor of Physiology in the Department of Life Sciences, enlightened the scholars with his trek from India to Canada to the U.S. Dr. Bhat then discussed his current research topic, titled "Calcium Signaling in Sensory Neurons: Toward Understanding Pain Mechanisms."

**ON SEPTEMBER 19TH**, the Dean of Upperclassmen, **Dr. Donna Durham-Pierre**, engaged the scholars in an informal conversation about the "Role of the University College and Lifelong Learning (UCaLL) and Strategies for Achieving Academic Distinction." On September 26th, MARC U\*STAR Scholars: **Micha Myers**, Senior Psychology/Healthcare Management Major and **Jatrya Rivers**, Senior Biology Major presented data from their research projects.

**ON OCTOBER 3RD**, **Mr. Roy Anthony Charles**, Director of Diversity, Recruitment and Retention at UNC-Chapel Hill was the presenter. His topic of discussion was "Preparing for the Graduate Application Process."

**ON OCTOBER 10TH**, MARC U\*STAR Scholars: **Domonique Battle**, Senior Biology Major and **Edie Pettiford**, Senior Exercise Science Major shared data from their Summer 2012 research projects.

**ON OCTOBER 17TH**, **Dr. Ronny Bell**, Professor and Co-Director of the Maya Angelou Center for Health Equity at Wake Forest School of Medicine presented "My Journey in the World of Health Disparities Research: Racial and Ethnic Disparities in Health, with a Focus on American Indian Populations."

**ON OCTOBER 24TH**, **Dr. Ha Nguyen**, an Assistant Professor in the Department of Family & Community Medicine at Wake Forest School of Medicine, discussed the "Cognitive Function and Well-being Among Older Adults and Ethnic Minority Individuals."

**ON OCTOBER 31ST**, **Dr. Gayle Slaughter**, Dean of Graduate Studies at Baylor College of Medicine discussed the "Contributions to Underrepresented Minority Students in Biomedical Research."

**ON NOVEMBER 14TH**, the speaker was **Dr. Purnima Dubey**. She is the Core Director of the Comprehensive Cancer Center and Assistant Professor of Pathology (Tumor Biology) at Wake Forest School of Medicine. The crux of her research deals with the "Immune Mechanisms that Contribute to Development and Progression of Castration-resistant Prostate Cancer."

**Dr. Azeez Aileru** concluded our Fall Seminar Series with his "The Ten Commandments of Success" during the Closing Ceremony on November 28th.

The returning MARC and RISE Scholars were welcomed by **Dr. Azeez Aileru** and **Dr. Shea Gilliam-Davis** during the Opening Session for the Spring 2013 Seminar Series on January 23rd.

**ON JANUARY 30TH**, **Dr. Shannon Jones**, a WSSU alumna and UNC-Chapel Hill SPIRE Scholar presented "The Investigation of Macrophage Differentiation and Dysfunction in the Respiratory Airways Following Burn Injury."

**ON FEBRUARY 13TH**, **Dr. Amy McMichael**, the Chair of and Professor in the Dermatology Department of Wake Forest School of Medicine talked about the "Updates in Research in Hair Disorders in African American Women."

**ON FEBRUARY 20TH**, the presenter was **Dr. Ed Smith**, Professor of Genomics/Comparative Genomics and Program Director of VT-IMSD and VT-PREP at Virginia Polytechnic Institute and State University (Virginia Tech). Dr. Smith's research involves "Avian Genomes: Models for Understanding Vertebrate Biology." He was joined by WSSU and MARC alumna **Ramine Alexander** who completed the VT-PREP and is now working towards a PhD in Human Nutrition, Foods and Exercise at Virginia Tech.

**ON FEBRUARY 27TH**, **Dr. Edward Morgan** from the Department of Pharmacology at Emory University delved into his ongoing research project of "Drug Metabolizing Enzymes: Importance in Drug Responses and Regulation in Disease States."

**ON MARCH 6TH**, we began our Student Presentations: Research In Progress (RIP) with two MARC Scholars – **Jamila Green**, a senior Psychology major and **Edie Pettiford**, a senior Exercise Science major. Ms. Green's RIP was titled "Reality Television: A Current Component in African Americans Female Empowerment." The title of Ms. Pettiford's RIP was "Propofol Induced Pain: Role of Transient Receptor Potential (TRP) Channels."

**ON MARCH 20TH**, two other MARC Scholars presented their RIP: **Domonique Battle**, a senior Biology major presented "African Folk Treatment, *Garcinia buchananii*, is an Effective Anti-diarrheal Agent for Toxin-induced Diarrhea." **Micha Myers**, a senior Psychology/Healthcare Management major presented "Assessing the Feasibility for Developing a Mild Cognitive Impairment Reduction Program: Preliminary Findings from the North Carolina Neurocognitive Risk Reduction Study."

**ON MARCH 27TH**, **Jatrya Rivers**, a senior Biology major and MARC Scholar, shared her RIP, "Correlation between Oral Contraceptives and Breast Cancer." She was succeeded by **Georges Guillaume**, a junior Chemistry major and RISE Scholar. He discussed his RIP, "Keratin and Nerve Cell Proliferation and Migration."

*continued on page 5*

# FALL 2012 & SPRING 2013 SEMINAR SERIES *continued*

**ON APRIL 3RD** the scholars met and practiced for the 4th Annual WSSU Scholars Day. It was held on Tuesday, April 9th in the Thompson Center (See Pg. 6).

**ON APRIL 10TH**, three senior scholars presented their RIP – one Biology major, **Brittany Cleckley** (MARC Affiliate Scholar), and two psychology majors, **Manuela Rigaud** (MARC Scholar) and **Ashley Tucker** (RISE Scholar).

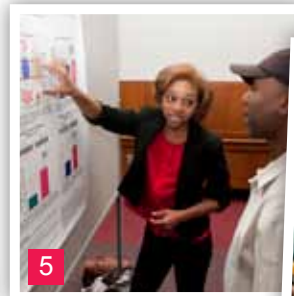
Ms. Cleckley’s research project was titled “Measuring the Effect of Improvisational Dance on People with Parkinson’s Disease Using 3D Motion Capture.” The title of Ms. Rigaud’s research project was “Neural Responses to Unattended Emotional Stimuli During Task Engagement.” Ms. Tucker’s research project was titled “Associations of Work Stress with Depressive Symptoms and Anxiety in Farmworkers in Eastern North Carolina.” All three young ladies graduated on Saturday, May 18th.

**ON APRIL 17TH**, **Jamila Green** (MARC Scholar) presented a Journal Article titled “Toward the Development of Stereotypical Roles for Black Women Scale.” Ms. Green received her BA degree in Psychology.

**ON APRIL 24TH**, the Journal Article titled “The General Anesthetic Propofol Excites Nociceptors by Activating TRPV1 and TRPA1 Rather than GABAA Receptors” was presented by **Edie Pettiford** (MARC Scholar). She will be completing a BS degree in Exercise Science in December, 2013.

**ON MAY 1ST**, **Dr. Azeez Aileru** along with the Program Coordinator, **Dr. Shea Gilliam-Davis**, announced the winners from the WSSU Scholars Day Poster Competition. **Micha Myers** won first place. **Georges Guillaume, Manuela Rigaud and Jatrya Rivers** tied for second place and **Jamila Green** finished in third place. They each received a monetary prize and a certificate.

The eight graduating seniors – **Domonique Battle, Brittany Cleckley, Jamila Green, Ashley Moore, Micha Myers, Manuela Rigaud, Jatrya Rivers and Ashley Tucker** – were presented with stoles which they wore at the 2013 WSSU Commencement held on Saturday, May 18th.



- 1 *MARC Scholar Domonique Battle*
- 2 *Mr. Roy Charles*
- 3 *Dr. Amy McMichael*
- 4 *RISE Scholar Ashley Tucker*
- 5 *MARC Affiliate Scholar Samantha-Rae Dickenson*
- 6 *Dr. Donna Durham-Pierre*
- 7 *Dr. Ed Smith*
- 8 *Dr. Azeez Aileru*

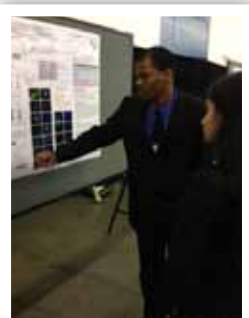


- ▲ *Dr. Purnima Dubey*
- ▲ *MARC Affiliate Scholar Brittany Cleckley*
- ▲ *Dr. Shannon Z. Jones*
- ▲ *RISE Scholar Georges Guillaume*

## 12TH ANNUAL BIOMEDICAL RESEARCH CONFERENCE FOR MINORITY STUDENTS (ABCRMS)

Guillaume presents poster at ABRCMS 2012 ▶

**MIDDLE IMAGE**  
Guillaume wins Immunology Award at ABRCMS 2012 ▶



▲ Scholars pictured with Dr. Aileru at the 12th ABRCMS in San Jose, CA.

The Annual Biomedical Research Conference for Minority Students (ABRCMS) is the largest biomedical and behavioral science and mathematics conference geared toward the professional development of undergraduate students. Approximately 3,300 individuals, including 1,700 undergraduate students, 400 graduate students and postdoctoral scientists and 1,200 faculty, program directors and administrators convened to promote the pursuit of advanced training in the biomedical/behavioral sciences and mathematics. Students travel from over 350 U.S. colleges and universities to attend. More than 500 representatives from graduate programs at U.S. colleges and universities as well as scientists from government agencies, foundations, and professional scientific societies share information about graduate school and summer internships and other professional opportunities.

Over 1,500 students participate in oral and poster presentations in twelve disciplines in the biomedical and behavioral sciences, and mathematics. All undergraduate student presentations are judged and those receiving the highest scores in each discipline and educational level are given an award during the final banquet.

At the 12th ABRCMS, which was held in San Jose, California from November 7 – 10, 2012, Georges Guillaume, a junior chemistry major and RISE scholar, won an award for outstanding poster presentation in the immunology category. This year, the 13th ABRCMS will take place in Nashville, Tennessee from November 13 – 16, 2013.



## WSSU 4TH ANNUAL SCHOLARS DAY

On April 9, 2013 the 4th Annual Scholars Day was held at Winston-Salem State University (WSSU). It was a forum that provided undergraduate and graduate students as well as faculty and staff from all areas of the university an opportunity to present their research to the campus. The work originated in classrooms, laboratories and community settings and many of the projects were prepared for regional, national and international conferences. The WSSU Scholars Day was part of the April celebration of Undergraduate Research Month.

The event took place in the Kennedy Dining Hall, Thompson Center, from 11 am – 1 pm. More than 150 poster presentations from the different academic disciplines at the University were displayed.

The MARC and RISE Scholars competed amongst themselves for awards and monetary rewards that were presented to them at the Closing Ceremony held on May 1st. Each scholar was assessed by three judges.

During the MARC and RISE Closing Ceremony, each winner received a certificate and cash prize. Micha Myers received \$200 for first place. There was a three-way tie for second place: Georges Guillaume, Manuela Rigaud and Jatyra Rivers. They each were given a \$150 prize. Jamila Green was awarded \$100 for third place.

## MARC & RISE GRADUATES:

# WHERE ARE THEY NOW?

**Ejiroghene Arhagba** was a RISE Scholar. He is a chemist at Precision Fabrics Group in Greensboro, NC. In Spring 2014, he will begin the MS degree program in Chemistry at North Carolina A& T State University.

**Ramine Alexander** was a MARC Scholar. She completed her first year in the PhD program in Human Nutrition, Foods and Exercise at Virginia Polytechnic Institute and State University (Virginia Tech). In February 2013, Ms. Alexander shared some excellent advice and insight with the MARC and RISE Scholars during one of the seminar series sessions (See Pg. 4).

**Ashlee Clark** was a RISE Scholar. She finished her first year in the Neuroscience PhD degree program at Wake Forest University Health Sciences (WFUHS). This past summer, Ms. Clark worked with Dr. Carol Shively at WFUHS monitoring the behavior of colonies of vervet monkeys to determine their social status as well as preparing a manuscript based on her prior research.

**Samantha-Rae Dickenson** was a MARC Affiliate Scholar. Presently, she is working towards a MS degree in Public Health at UNC-Charlotte. She received a 4.0 GPA for the Fall 2012 semester and completed her first year with an overall GPA of 3.5.

**Anthony Dixon** was a RISE Scholar. He works with the Renaissance Minority Male Mentoring Program at WSSU under the tutelage of Dr. Trae Cotton and Mr. Theo Howard in the Student Affairs Office. In Fall 2013, Mr. Dixon will enter the MS degree program in Occupational Therapy at WSSU.

**Tempestt Evans** was a MARC Scholar. She participated in a pre-dental postbaccalaureate program at the UNC-Greensboro. In 2013, she completed the East Carolina University School of Dental Medicine Preparing Tomorrow's Dentists Summer Program. Ms. Evans is now in the process of applying to dental school.

**Jamila Green** was a MARC Scholar. In Fall 2013, she will begin the MA degree program in Community Social Psychology (CSP) at the University of Massachusetts Lowell.

**Aisha Hillard** was a MARC Scholar. She is in the Neurobiology PhD degree program at the University of California, San Francisco.

**Antentor Hinton, Jr.** was a MARC Scholar. He recently completed his second year in the Cell and Molecular Biology PhD program at the Graduate School of Biomedical Sciences at Baylor College of Medicine in Houston, TX.

**Jamil Hopkins** was a RISE Scholar. He graduated in May 2013 from WSSU with a BS degree in Biology and a minor in Neuroscience from Wake Forest University. Mr. Hopkins' ultimate goal is to attend either physician's assistant school or medical school.

**Kimberly Hunter** was a RISE Scholar. She completed her first year in the MA degree program in General Experimental Psychology at New Mexico State University. Ms. Hunter is working on her thesis introduction and preparing for her thesis proposal. She will study the cognitive effects of acoustic synchrony manipulation and synchrony in online communication.

**Jacqueline Jackson** was a MARC Scholar. She is in the Cancer Biology PhD Program at the University of Wisconsin-Madison. Ms. Jackson is a second-year student working in the lab of Shannon Kenney and studying the role of EBV infection in tumorigenesis.

**Stephanie Jackson** was a MARC Scholar. She is in a Chemistry MS degree program in New Jersey.

**James Johnson, Jr.** was a MARC Scholar. He completed the first year of the Core Curriculum Courses at Meharry Medical College. During Fall 2013, Mr. Johnson will start his second year as a PhD candidate in Neuroscience.

**Ashley Moore** was a MARC Affiliate Scholar. In Fall 2013, she will start the Master's of Arts degree program in Bioethics at Wake Forest University.

**Jasmine Richardson** was a MARC Scholar. She is a third-year student at Campbell University College of Pharmacy & Health Sci-

ences in Buies Creek, NC. In Fall 2013, Ms. Richardson will also begin working on a Master's degree in Public Health.

**Manuela Rigaud** was a MARC Scholar. In Fall 2013, Ms. Rigaud will begin the MA degree program in Developmental Psychology at the Teachers College, Columbia University in New York City.

**Jatrya Rivers** was a MARC Scholar. Ms. Rivers will matriculate into the Master of Science degree program in Public Health at UNC-Charlotte starting in Fall, 2013.

**Remi Royal** was a RISE Scholar. She completed her Master of Science degree in Physiology and Integrative Biology in January, 2013. In Fall 2013, Ms. Royal will begin working towards obtaining a teaching certificate at Chestnut Hill College in Philadelphia, PA.

**Tierra Rudd** was the first MARC Scholar. She is working on a PhD in Psychology, Counseling Specialization/Counseling at the University of West Florida in Pensacola.

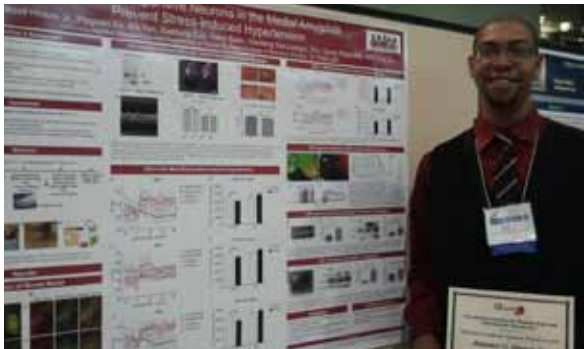
**Lassiter Speller** was a MARC Scholar. He is entering his fifth year in the Cognitive/Experimental Psychology PhD program studying Human Performance at The Ohio State University in Columbus. Mr. Speller is preparing for his general qualifying exam to become a PhD candidate.

**Ashley Taylor** was a MARC Scholar. She finished her first year of pursuing a PhD in Chemistry at Louisiana State University. She is doing research in a polymer synthesis lab with Dr. Donghui Zhang. Ms. Taylor continued her work in that lab during this past summer and will resume her research in the next few years to come.

**Kiara Vann** was a RISE Scholar. She completed her first year in the PhD program in Biomedical Sciences at Morehouse School of Medicine in Atlanta, GA. Ms. Vann will work in Dr. Zhigang Xiong's Lab conducting her dissertation research which examines the role of acid-sensing ion channels (ASICs) in the enhancement of cognition and memory.

# SCHOLAR PUBLICATIONS

1. **A. Hilliard**, P. Magee, J. G. Naeini, T. Kute, and A. Dogariu, Comparison of Tumor and Healthy Tissues Using Raman Spectroscopy Biomedical Optics, OSA Technical Digest (CD) (Optical Society of America, 2008), paper BTuF16.
2. Joyner J, **Moore AR**, Mount DL, Simmons DR, Ferrario CM, Cline DM. Emergency Department Patients Self-Report Higher Patient Inertia, Hopelessness, and Harmful Lifestyle Choices Than Community Counterparts. J Clin Hypertens (Greenwich). 2012 Dec;14(12):828-835. doi: 10.1111/jch.12001. Epub 2012 Aug 28. PMID:23205749
3. Oleson EB, **Richardson JM**, Roberts DC. A novel IV cocaine self-administration procedure in rats: differential effects of dopamine, serotonin, and GABA drug pre-treatments on cocaine consumption and maximal price paid. Psychopharmacology (Berl). 2011 Mar;214(2):567-77. doi: 10.1007/s00213-010-2058-6. Epub 2010 Nov 26. PMID:21110008 [PubMed - indexed for MEDLINE] PMCID:PMC3289955
4. Blume LC, Bass CE, Childers SR, Dalton GD, Roberts DC, **Richardson JM**, Xiao R, Selley DE, Howlett AC. Striatal CB1 and D2 receptors regulate expression of each other, CRIP1A and delta opiod systems. J Neurochem. 2013 Mar;124(6):808-20. doi: 10.1111/jnc.12139. Epub 2013 Jan 31.
5. Andrews, J. J., Bond, G. D., & **Speller, L. F.** When Course Management Systems Fail: Student and Instructor 'On-the-Fly' Adaptation Behaviors. Cognitive Technology, 14, 45-54 (2009).
6. Sayo O. Fakayode, **Ashley M. Taylor**, Whitney E. Stapleton, **Ejiroghene F. Arhagba**, Maya McCoy, David A. Pollard, Abdul K. Mohammed, Simultaneous determinations of cysteine and homocysteine thiolactone in human serum albumin by fluorescence spectroscopy and multivariate regression analysis. Global Journal of Analytical Chemistry, Vol 1, Issue 1, 2010, pages 13-28



▲ Antentor Hinton wins 2013 Best Poster for the Cell and Molecular Biology Conference and Retreat.

Antentor Hinton wins Minority Graduate Student Travel Award and Delores C. Shockley Best Abstract Award at the 2013 Experimental Biology Conference. He was a 2010 MARC graduate and is currently a PhD student at Baylor College of Medicine.



▲ Lassister Speller, MARC graduate and Cognitive/Experimental Psychology PhD student at Ohio State University, is preparing for his qualifying exams to become a PhD candidate.



▲ Kiara Vann, 2012 RISE graduate and PhD student at Morehouse School of Medicine, is a candidate for the NIH Specialized Neuroscience Research Program (SNRP) scholarship.

## iBIOSKETCH.COM

iBioSketch.com, designed by Strategic Evaluations, Inc. (SEI), is a patent-pending, web-based application which collects and stores essential outcome measures for every current and former student in the MARC U\*STAR and the MBRS-RISE programs. All MARC and RISE scholars were issued unique usernames and passwords that allowed them to log in and record their progress across various areas, including seminars attended, conferences attended, poster presentations, research internships (on- and off-campus), awards received, and graduate school applications submitted. In all, the application is designed to systematize the tracking of at least eleven (11) different student outcomes, as well as store personal statements. These data will be used to gauge their progress as undergraduates and graduate students.

Equally important is that iBioSketch.com tracks students' career progress beyond the undergraduate and graduate level and is used for more than fifteen other training programs. For example, the online tracking tool is currently used to track IMSD graduate students, PREP post-baccalaureate students, and postdoctoral scholars at UNC-Chapel Hill, as well as RISE students at four other programs funded in the state of North Carolina. The tracking system served as the cornerstone for a recently published paper in BioScience and was awarded a Small Business Innovation Research (SBIR) grant for expansion and sharing of comparison data across users.

iBioSketch.com will help to readily access how well the MARC and RISE scholars are progressing along all career measures in relation to other MARC and RISE programs using the system. This tracking tool strengthens the user's ability to report student outcomes and make comparisons at unprecedented levels.