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WINSTON-SALEM STATE UNIVERSITY

Fall 2016 Newsletter

A MESSAGE FROM THE DIRECTOR...

The nature of BRIC's work centers on building academic and social scaffolds around MARC and RISE trainees to maximize their successes in the science work force. This does not exclude other STEM trainees who may also participate in BRIC activities. One strength is partnering with pre-existing programs allowing it to extend the reach of its work and resources which has helped to build reciprocal and mutually beneficial relationships that serve trainees and the broader student population in our academic community. This has led to an institutional culture that values and embraces BRIC's collaborative training and welcomes its practices in programs and departments where MARC/RISE participation did not exist. For example, in 2015/16, MARC U*STAR scholars were recruited across Faculties in the College of Arts, Sciences, Business & Education (CASBE) and in the School of Health Sciences (SOHS). In May of 2016, four participants received their baccalaureate degrees from CASBE & SOHS and matriculated into competitive graduate programs of their choice with full scholarship. This indicates a 100% success rate for the graduating class to directly matriculate into graduate programs. This exceeds the 50% goal set for MARC



Dr. Azeez Aileru, Director

U*STAR program by the NIH, attesting to the dedication and tenacity of the WSSU training faculty, and BRIC's relentless effort to achieve student success. In the NIGMS-RISE program, seventeen scholars from the freshman and sophomore classes were recruited from a diverse range of departments in the CASBE and SOHS. In the summer, all were placed in either extra or intramural internship programs for a summer research experience. In collaboration with Wake Forest University, a R15 AREA grant in support of student training is on-going to assess the effects of heme vs heme deficiency on RNA profiles in cultured cells. Approximately seven non- MARC/RISE program participants are engaged in the collaborative research project with various mentors. BRIC's aim is to develop an educational pipeline from lower to upper class levels of students centered on a four-stage training model that aims to increase the pool of underrepresented students who gain admission into graduate and professional programs. It also provides an opportunity for our faculty to contribute to the knowledge base of the students in STEM. Through these programs, many past participants have matriculated into graduate or professional schools or have been conferred degrees of MS, MA, PhD, PharmD, DDS, or MD degrees. We salute two past MARC U*STAR trainees that were recently (May, 2016) conferred the degree of Doctor of Philosophy in biomedical science. Congratulations and best wishes to Drs. Antentor (AJ) Hinton, Jr. and Ramine Alexander as they embark

upon the next exciting phase of their career. BRIC continues to enjoy a rich and successful heritage of fostering research collaboration and science training of its students while strengthening WSSU's research capacity through shared resources.



The MARC U*STAR program is instrumental in enhancing the training of undergraduate students in STEM fields, focusing on maximizing access to hands-on research and

improving their preparation for high caliber training in biomedical and bio-behavioral research at the graduate level, ultimately leading to biomedical research careers. In May of 2016, four participants received their baccalaureate degrees at WSSU. Two enrolled in PhD programs: one in the University of California, Irvine, and the other at Wake Forest University School of Medicine. The other two students enrolled in MS programs: one in Clinical Psychology at Western Carolina University; and the other in Social Work at the University of Michigan, that could lead to PhD degree programs following their Masters. Four new upper classmen were recently appointed to fill the vacant positions.



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CONGRATULATIONS TO OUR 2016 GRADUATES ON THEIR MATRICULATION INTO **GRADUATE SCHOOL**



TARI COX graduated with a B.S. in Psychology. Tari's MARC mentors were Dr. Michele Lewis and Dr. Christian Waugh. Tari's primary research focus was Self-Pleasure and Social Support Needs Predict Choice Behavior on the Dictator and Ultimatum Tasks.

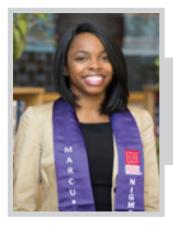
Tari is currently in the Clinical Psychology Masters Graduate Program at the University of Western Carolina.



JASON RILEY graduated with a B.S. in Social Work. Jason's MARC mentor was Dr. David Mount. His primary research focus was to understand how a person's social environment, ultimately impacts their life through biological factors that affect them both socially and psychologically.

Jason is currently in the Master of Social Work Graduate Program at the University of Michigan.





AMARI LEWIS graduated with a B.S. in Computer Science. Amari's MARC Mentor was Dr. Deb Debzani. Amari's primary research focus has evolved from programming, robotics, pharmacology to big data and how much of an impact technology and big data analytics have in healthcare.

Amari is currently in the Computer Science PhD Graduate program at the University of California at Irvine.

SHAINA YATES graduated with a B.S. in Clinical Laboratory Science. Shaina's MARC Mentor was Dr. Jeffery Meixner. Shaina's primary research focus was Silver Nanoparticle for Photothermal Ablation of Aggressive Breast Cancer Cells in a 3d Matrix, in Vivo.

Shaina is currently in the Molecular and Biosciences PhD Graduate Program at the Wake Forest University Graduate School of Arts and Sciences.



MEET THE 2016-2017 MARC U*STAR SCHOLARS



LANAZHA BELFIELD is a Senior Biology major. Mentor - Tennille Presley, PhD



BEVERLY DOSSO is a Senior Chemistry major. Mentor - Sezgin Kiren, PhD



ANNE LENZO is a Junior Biology major. Mentor - Steven Viscido, PhD



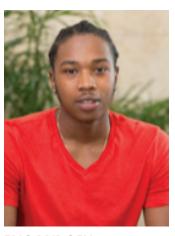
CHRISTOPHER SHEW is a Senior Biology major. Mentor - Mesia Steed, PhD



MEET THE 2016-2017 MARC U*STAR AFFILIATES



ZIPPOARAH FOSTER is a Senior Psychology major. Mentors - Amber DeBono, PhD; Michele Lewis, PhD



ERIC PRIDGEN is a Senior Mathematics major. Mentor - Mark Hunnell, PhD



KIANA RUSHDAN is a Senior Biology major. Mentor - Mesia Steed, PhD



VICTORIA SEDWICK is a Senior Chemistry major. Mentor - A. Bakarr Kanu, PhD

Congratulations to OUR 2016 PHD RECIPIENTS IN BIOMEDICAL SCIENCES



ANTENTOR HINTON JR., PhD, a

MARC U*STAR trainee in Molecular Biology from the department of Biological Sciences at WSSU, was awarded PhD degree from Baylor College of Medicine in the Integrative Molecular Biology Science Program in May 2016. His graduate research elucidated the role of estrogen receptor alpha and steroid co-activator-1 in stress-induced hypertension in the brain. While in

graduate school, Antentor served for a two year period as the President for the Association of Graduate Student of Diversity and has accumulated 26 research awards, travel awards, career development, and poster/ oral awards. He mentored 1 Minority Access Program (MAP) student and three graduate students and lectured in the Molecular and Cell Biology Postbac course and Molecular Biology Review course. He first authored in Hypertension Journal and co-authored 12 other scientific publications. Antentor graduated magnum cum laude at WSSU and was a leader on the Varsity Tennis Team in his senior year. Dr. Antentor Hinton is currently a post-doctoral Fellow in the department of Internal Medicine/Division of Endocrinology at the University of Iowa. We salute Dr. Antentor (AJ) Hinton for his achievement.

RAMINE ALEXANDER, PhD, MPH, a former MARC U*STAR trainee in Exercise Science from the School of Health Sciences at WSSU, successfully defended her doctoral dissertation which focused on using a Community-Based Participatory Research Approach (CBPR) to improve health disparities among youth and adults in certain regions. Dr. Alexander received her Ph.D. degree from Virginia Tech in Spring 2016 in Human, Nutrition, Foods and Exercise (HNFE) with a concentration in Behavioral and Community Science. While obtaining her Master of Public Health (MPH) degree in Health Education, Dr. Alexander used the Centers for Disease Control Clear Communication Index to improve program materials to be more appropriate for low health literate populations. During her tenure at Virginia Tech, she was selected to be a 2016 Diversity Scholar and was a 2015 Virginia Tech Hepler Summer Research Fellowship recipient. She was

a recipient of a National Institute of Health Diversity Supplement grant, which aided in her completion of the last year of the pre-doctoral program. She recently accepted a Postdoctoral Fellowship in Health Promotion and Disease prevention at UNC-Chapel Hill starting in Fall 2016. We salute Dr. Alexander, a RAMS graduate, for her accomplishment in the biomedical science field.



Senior Scholars are Slated for PhD Degree in 2017



JAMES A. JOHNSON JR., a MARC graduate, is currently a senior PhD Candidate in the Department of Neuroscience at Meharry Medical College, tentatively looking to graduate in 2017. Since 2013, he has been working with Dr. Eunsook Lee where his primary focus is on manganese induced excitotoxicity via dysfunction of astrocytic glutamate transporters GLT-1 and GLAST. The overall objective is to identify the protective role of valproic acid (VPA) on manganese (Mn) induced behavioral and molecular impairments due to dysfunction of astrocytic glutamate transporters GLT-1 and GLAST in mice. These results will offer novel translational therapy strategies for diseases associated with impairment of glutamate transporters GLT-1 and GLAST function and inherent excitotoxicity. He has published in peer-review journal about his work. James is moving to Florida A & M University to conclude his project and dissertation. During James' undergraduate tenure at WSSU, he worked with Drs. Manju Bhat and Azeez Aileru in the field of Neuroscience. We salute James Johnson, Jr. for his accomplishment.

KIARA VANN, a NIGMS-RISE graduate is currently a PhD Candidate in Neuroscience at Morehouse School of Medicine under the tutelage of Dr. Zhigang Xiong. Her dissertation is on "The Role of Acid-Sensing Ion Channels in Olfactory Function and Deficits Associated with Alzheimer's Disease." She is currently working with isolated olfactory sensory neurons and conducting olfactory studies using different behavioral paradigms. She attends a training program at Harvard/MIT on Multimodality Imaging and has published 3 peer-review journals in this field. The 2016 publication is shown on page 10. During Kiarra's undergraduate tenure at WSSU, she worked with Drs. Manju Bhat and leffrey Overholt examining mechanisms of pain in relation to the effects of propofol and capsaicin on Transient Receptor Potential channels in dorsal root ganglion neurons. We salute Kiara Vann for her accomplishment.



MEET THE NIGMS-RISE SCHOLARS



The NIGMS-RISE program at WSSU consists of a multi-stage training model, grooming undergraduate students, starting in their freshman year and continuing through to their senior year, with the focus on increasing the number of students entering and completing graduate education in the biomedical sciences. Currently, there are 17 RISE Scholars who are in their freshman and sophomore years. They have begun a supportive peer-learning community and are exposed to different research careers where they participate in professional development activities and workshops, as well as take an intensive laboratory research methods course in their sophomore year. All RISE scholars will attended Summer Research Experience programs, mostly in research-intensive institutions and are slated to present their data at the 16th ABRCMS Conference in November in Tampa, Florida.



Top Left to right:

Laklia Fuller, Sophomore Biology major, Mentor - Lisa Maness, PhD Destiny Williams, Sophomore Biology Major, Mentor - Daniel Williams, PhD Mentor - Bakarr Kanu, PhD Adriance Edington, Sophomore Biology major, Mentor - Exazevia Logan, PhD Thomas Fair, Junior Exercise Physiology major, Mentor - Victor Pulgar, PhD Zakiyah Henry, Sophomore Biology major, Mentor - Tennille Presley, PhD Tanya Zubov, Sophomore, Biology major, Mentor - Manju Bhat, PhD

Middle Left to right:

Tyiah Kemp, Sophomore Computer Science Major, Mentor - Deb Debzani, PhD

Guy Blackmon, Junior Biology major, Mentor - Azeez Aileru, PhD Asia Hoke, Junior Biology major, Mentor - Exazevia Logan, PhD Toneia Washington, Sophomore Chemistry major, Mentor - Ed Ebert, PhD Imani Clark, Sophomore Biology major, Mentor - Steven Viscido, PhD Joshua Waller, Sophomore Exercise Science major,

Mentor - Serguei Sidach, PhD

Bottom Left to right:

DeAnjur Coney, Sophomore Clinical Laboratory Sciences major,

Ziaqueria Short, Sophomore Biology Major, Mentor - Lisa Maness, PhD

Not shown above:

D'Niqua Murphy, Senior Exercise Physiology major,

Mentor - Azeez Aileru, PhD

Essynce Smith, Sophomore Nursing major, Mentor - Azeez Aileru, PhD Selena Marable, Senior Exercise Physiology major, Mentor - Azeez Aileru, PhD

Recently Accepted to the Program:

Jazmyn Edwards, Senior Sociology major, Mentor- Azeez Aileru, PhD Khala Clemons, Senior Exercise Science major, Mentor-Azeez Aileru, PhD Shabreva Vample, Junior Biology major, Mentor-Azeez Aileru, PhD Sierra Sledge, Junior Exercise Science major, Mentor-Azeez Aileru, PhD Oluyfunto Odufuwa, Sophomore Biology major, Mentor-Azeez Aileru, PhD

MEET THE NEW BRIC COORDINATOR

Dr. Patricia D. Flowers received her Bachelor's of Science degree from Winston-Salem State University and earned her PhD from Wake Forest University School of Medicine for Molecular Medicine and Translational Sciences. She brings with her a wealth of knowledge concerning Student Centered Programs. Join us in welcoming Dr. Flowers back to WSSU. We are happy to have her as part of the BRIC team.



1/12/16 - Opening Meeting of Spring Semester, Dr. Azeez Aileru, the Director of BRIC welcomed the MARC/RISE Scholars for the spring semester. He matched RISE Scholars to the MARC Mentors.

1/19/16 - RISE Group 3 presented their Medical Theme Presentation on Hypertension, discussing definitions, epidemiology, mechanisms and treatments.

1/26/16 - Ashalla Freeman, PhD, Director of Diversity Affairs & IMSD (Initiative for Maximizing Student Diversity), UNC Chapel Hill School of Medicine. Dr. Freeman shared her graduate research interests and how she chose her area of research. She gave advice to the students concerning progression through graduate education and research careers.

2/2/16 - TanYa Gwathmey-Williams, PhD. Initiative for Maximizing Student Diversity (IMSD), Hypertension and Vascular Disease Center, Wake Forest University School of Medicine. Shared her graduate research with the students and gave pertinent information concerning graduates studies and the importance of selecting a field that interests you.

2/9/16 - Exazevia Logan, PhD, Assistant Professor, Department of Biological Sciences, WSSU, gave a great presentation on how to write an effectivepersonal statement for graduate school. The "Do's and Don'ts" of a professional statement.

2/16/16 - Richard Watkins, PhD, CEO/ President, SPAN The Science Policy. Dr. Watkins shared his graduate research. His talk focused on the challenges and adversities of dealing with disappointments and denials of the graduate application process, and how they effect your progress, as you deal with real life issues.

2/23/16 - RISE Group 2 presented their Medical Theme on Computer Methods and Programs in Biomedicine. They discussed imaging, human-robot interaction in medical practice, and heart rate/blood pressure variability analysis.

3/1/16 - RISE Group 1 presented their Medical Theme on Infectious Diseases. They discussed disorders caused by bacteria, viruses, fungi and parasites.

3/15/16 - Devyn Gillette PhD, Program Director Biocore Program, former WSSU student, shared her graduate research and journey to graduate school. Her main focus was on the importance of good mentors as one matriculates from undergraduate to graduate studies.

3/22/2016 - Edward Morgan, PhD. Professor. Emory University shared his research interests with the students and gave great information concerning the advantages for pursuing a PhD.

3/29/16 - Tennille Presley, PhD, Assistant Professor of Physics in the Department of Chemistry, WSSU, shared her research from graduate school and her current research interests. She gave much needed insight on the excitement that comes with being accepted into a graduate program and the downfalls associated with antiquated negative opinions and thoughts.

4/29/16 - Closing Ceremony for the Semester. MARC/RISE Scholars and their Mentors celebrated the end of the academic year. Scholarship Day awards were given to students who excelled in their poster presentations. Graduating seniors were honored.



Above: Chancellor Robinson addressing the students at the Opening Meeting.



at the Opening Meeting.



Right: Dr. Aileru with graduating Seniors at the Closing Ceremony.

During the 5th Annual Scholarship Day, work from 23 departments, including research by both undergraduate and graduate students, as well as faculty across a wide range of disciplines was presented. The exhibitions originated in classrooms, laboratories and community settings. A plethora of the projects have been prepared for presentation at various conferences across the country, such as the Annual Biomedical Research Conference for Minority Students (ABRCMS). Scholarship Day provides an opportunity to celebrate research on our campus and to recognize the scholars who produce work. It is also a collaborative effort between the students and faculty. It is a vehicle for highlighting some of the wonderful work that is taking place at WSSU. BRIC highlighted the work of MARC/RISE scholars.

SHAINA YATES won 1st place Upper Classmen for her presentation on Silver Nanoparticle for Photothermal Ablation of Aggressive Breast Cancer Cells in a 3D Matrix, in Vivo.



JASON RILEY took 3rd place Upper Classmen for his presentation on Study

Design and Implementation of the Guideright Post-secondary Education Program Among Youth Aging Out of Foster Care.





LANAZHA BELFIELD and CHRISTOPHER SHEW tied for 2nd place Upper Classmen for their presentations on:

Lanazha - What a Combination: Heat Acclimation and Type 2 Diabetes Christopher - The Role of Matrix Metalloproteinase in Hypertension Mediated Vascular Remodeling.



IMANI CLARK won 2nd place Lower Classmen for her presentation on A Mixed-Model Study of Fish Schooling Behavior



TANYA ZUBOV received 1st place Lower Classmen for her presentation on Mechanisms of Propofol-induced Pain: Effects on Capsaicin- and Ryanodine Receptors.



THOMAS FAIR took 3rd place Lower Classmen for his presentation on Mechanisms of Acidosis Induced Vasodilation in the Rat Femoral Vasculature









ABRCMS 2015 - SEATTLE, WA

ABRCMS is the largest, professional conference for biomedical students attracting approximately 2,600 individuals from over 285 U.S. colleges and universities. ABRCMS serves as a key stepping stone enhancing the scientific and professional development of young scientists. The conference is designed to encourage underrepresented minority students to pursue advanced training in the biomedical and behavioral sciences and provide faculty mentors and advisors with resources for facilitating students' success. More than 280 representatives from graduate programs at U.S. colleges and universities, as well as scientists from government agencies, foundations and professional scientific societies, join ABRCMS in the exhibitors program to share information about graduate school and summer internship and research opportunities, funding sources, and professional networks.



Dr. Aileru with Kiana Rushdan at her poster.



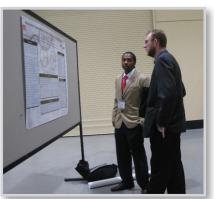
Beverly Dosso



Students at the PTI airport.

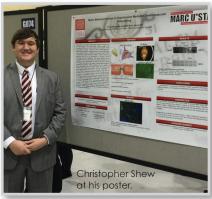


Dr. Aileru with the students at the conference.



Eric Pridgen explaining his poster.





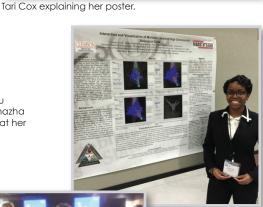


Students at the conference dinner.





Dr. Aileru with Lanazha Belfield at her poster.



Amari Lewis Won Best Poster Presentation in Computational Biology



2016 SUMMER RESEARCH EXPERIENCE



MARC, MARC Affiliates & RISE Graduates: WHERE ARE THEY NOW?

MARC & MARC AFFILIATE GRADUATES:

Ramine Alexander received her Master's degree in Public Health and PhD in Human Nutrition, from Virginia Polytechnic Institute and State University (Virginia Tech) May of 2016.

Antentor Hinton, Jr. received his PhD in Integrative Molecular Biology Science from Baylor College of Medicine in May 2016.

James Johnson is a PhD Candidate at Meharry Medical College specializing in neuroscience. He is working with Dr. Eun-Sook Lee on a project entitled "Effect of Valproic Acid on Manganese-Induced Impairment of Glutamate Transporters."

Lassiter Speller is completing his PhD degree in Cognitive/Experimental Psychology specializing in Human Performance at Ohio State University. He received his Master of Arts in Cognitive Psychology.

Ashley Taylor is in her fifth year of pursuing a PhD degree in Chemistry at Louisiana State University. She is working in a polymer synthesis lab in the macromolecular division, under the direction of Dr. Donghui Zhang.

Tempestt Evans is at the University of North Carolina at Chapel Hill School of Dentistry. She is expected to finish may 2018.

Jasmine Richardson completed her PharmD degree at Campbell University College of Pharmacy & Health Sciences in May 2015. She is currently completing her Pharmacy internship.

Samantha-Rae Dickenson is as an Accreditation Specialist at the Council of Education for Public Health in Silver Spring, Maryland. She completed a Master's degree in Public Health at UNC-Charlotte.

Jacqueline Jackson is currently working for Promega Corporation in Madison, WI as a Production Scientist. She obtained her Master's degree in Cancer Biology from the University of Wisconsin-Madison.

Kamedra McNeil is a Forensic Science Technician at the Department of Forensic Science in Washington, D.C. She recently received a Master's degree in Computer Information Systems from Strayer University. Ms. McNeil plans to further her education by obtaining a PhD degree in either Forensic Biology or Biotechnology.

Tierra Rudd is presently the Assistant Women's Basketball Coach at Western Carolina University. She holds a Master's degree in Psychology with a specialization in Counseling from the University of West Florida.

Ashley Moore is completing a Master of Public Health degree at Liberty University in Lynchburg, Virginia. Upon completion, she plans to apply to Liberty's medical school.

Manuela Rigaud received her Master's degree in Developmental and Child Psychology from the Teachers College, Columbia University in New York City. She is currently working as a Research Assistant.

Jatyra Rivers received a Master's degree in Public Health. She is currently working as an Associate Project Coordinator.

Brittany Cleckley is a Business Development Intern. She will be pursuing a Master of Public Health degree, in the very near future.

Micha Myers is currently employed as a Health Equity Ambassador for the Maya Angelou Center for Health Equity. She is actively working on two manuscripts with Dr. David Mount of the Maya Angelou Center for Health Equity at Wake Forest Baptist Medical Center.

Joab Odera is a second year PhD student in the Integrated Biosciences Program, North Carolina Central University.

Domonique Battle is currently working as a Pharmacy Technician and doing research at Johns Hopkins Bloomberg School of Public Health.

Ashlee Clark received a Master's degree in Biomedical Sciences and Neuroscience at Wake Forest University Health Sciences.

Eve Savage is currently a med/tech supervisor working at Magnolia Glen Assisted/Retirement Home in Raleigh, NC. She is preparing to take the Assisted Living Administrator Exam August 2016.

Edie Pettiford is in her 2nd year in the PhD program at Campbell University.

Chinaemeze Okoro Currently founded Ram Connect, a Customer Service based company that brings discounted services to the student, faculty/ staff, and alumni of WSSU.

Keren (Pereda) Ferris received a Masters of Public Health (MPH), Public Health Education and

Jessica Clark will receive her Master's degree in the area of biomedical sciences in August 2016, at which time she will apply to medical school in

Tenise Holloway completed her BS degree in Mathematics in May 2015. She has applied to a Master's programs in biostatistics.

Olivia Franklin is currently attending Idaho State University and is in her second year of the Master's program in Anthropology.

Tari Cox is currently in the Clinical Psychology Masters Program at the University of Western Carolina.

Amari Lewis is currently in the Computer Science PhD Program at the University of California at

Jason Riley is currently in the Master of Social Work Graduate Program at the University of

Shaina Yates is currently in the Molecular and Biosciences PhD Program at the Wake Forest University Graduate School of Arts and Sciences.

Taylor Harris is currently in her second year in the PhD program at the University of South Florida in Tampa, with her area of focus is Analytical Chemistry.

Kiara Vann is a fourth year PhD candidate in Neuroscience at Morehouse School of Medicine. She was the second author on a recent publication.

Remi Royal received her Master's degree in Physiology and Integrative Biology at Rutgers University in January 2013. She received a second Master's degree in Secondary Education with a certification in Biology at Chestnut Hill College (Philadelphia, PA) in August 2014.

Kimberly Hunter is presently working as a Data Analyst at Johnson C. Smith University. She received her Master's degree in Experimental Psychology at New Mexico State University.

Ejiroghene Arhagba is in the third year of the Master's program in Chemistry at North Carolina A&T State University.

Anthony Dixon completed his MS degree in Occupational Therapy at WSSU in December 2015.

Ebone Evans is a second year medical student at East Carolina University Brody School of Medicine. She graduated in May 2014 with a BS degree, summa cum laude, in Biology.

Michelle Wright is currently working on a Master of Public Health degree, with a concentration in Community Health Education, at the University of Tennessee, Knoxville. She graduated in May 2014 with a BA degree, cum laude, in Psychology.

Georges Guillaume is beginning graduate studies at Washington University School of Medicine in St. Louis, MO August 2016.

Jamil Hopkins is presently a Financial Advisor at Modern Woodmen of America in his hometown of Cary, NC. He may pursue graduate school soon.

Ashley Tucker is currently an Economic Development Analyst, currently pursuing a double Master's degree. One in Public Administration -Community Economic Development, expected graduation May 2017; the second in City/Urban, Community and Regional Planning-Economic Development, expected graduation in May 2018.



Past MARC and RISE participants.

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Dr. Aileru with Margaret Spellings, UNC President, during her visit to WSSU on April 26, 2016



SCHOLAR PUBLICATIONS

- 1. Zoellner JM, Hedrick VE, You W, Chen Y, Davy BM, Porter KJ, Bailey A, Lane H, Alexander R, Estabrooks PA. "Effects of a behavioral and health literacy intervention to reduce sugar-sweetened beverages: a randomized-controlled trial." Int J Behav Nutr Phys Act. 2016; 13:38. doi: 10.1186/s12966-016-0362-1. PMID: 27000402
- 2. Saito K, He Y, Yang Y, Zhu L, Wang C, Xu P, Hinton AO, Yan X, Zhao J, Fukuda M, Tong Q, Clegg DJ, Xu Y. PI3K in the ventromedial hypothalamic nucleus mediates estrogenic actions on energy expenditure in female mice. Sci Rep. 2016; 6:23459. doi: 10.1038/ srep23459. PMID: 26988598
- Yan C, Yang Y, Saito K, Xu P, Wang C, Hinton AO Jr, Yan X, Wu Q, Tong Q, Elmquist JK, Fukuda M, Xu Y. "Meta-chlorophenylpiperazineenhances leptin sensitivity in diet-induced obese mice." Br J Pharmacol. 2015; 172(14):3510-21. doi: 10.1111/bph.13141. Epub 2015 May 11. PMID: 25817043
- 4. Zhu L, Xu P, Cao X, Yang Y, Hinton AO Jr, Xia Y, Saito K, Yan X, Zou F, Ding H, Wang C, Yan C, Saha P, Khan SA, Zhao J, Fukuda M, Tong Q, Clegg DJ, Chan L, Xu Y. "The ERα-PI3K Cascade in Proopiomelanocortin Progenitor Neurons Regulates Feeding and Glucose Balance in Female Mice. Endocrinology." 2015; 156(12):4474-91. doi: 10.1210/ en.2015-1660. Epub 2015 Sep 16. PMID: 26375425
- Hinton AO, He Y, Xia Y, et al. "Estrogen Receptor-α in the Medial Amygdala Prevents Stress-Induced Elevations in Blood Pressure in Females. Hypertension." 2016; 67(6):1321-30. doi: 10.1161/HYPER-TENSIONAHA.116.07175. Epub 2016 Apr 18. PMID: 27091896
- 6. Xu P, Cao X, He Y, Zhu L, Yang Y, Saito K, Wang C, Yan X, Hinton AO Jr, Zou F, Ding H, Xia Y, Yan C, Shu G, Wu SP, Yang B, Feng Y, Clegg DJ, DeMarchi R, Khan SA, Tsai SY, DeMayo FJ, Wu Q, Tong Q, Xu Y. "Estrogen receptor-α in medial amygdala neurons regulates body weight." J Clin Invest. 2015; 125(7):2861-76. doi: 10.1172/JCI80941. Epub 2015 Jun 22. PMID: 26098212
- Saito K, He Y, Yan X, Yang Y, Wang C, Xu P, Hinton AO Jr, Shu G, Yu L, Tong Q, Xu Y. "Visualizing estrogen receptorα-expressing neurons using a new ERa-ZsGreen reporter mouse line." Metab Clin Exp. 2016; 65(4):522-32. doi: 10.1016/j.metabol.2015.12.011. Epub 2015 Dec 29. PMID: 26975544
- 8. Yan C, He Y, Xu Y, Shu G, Wang C, Yang Y, Saito K, Xu P, Hinton AO Jr, Yan X, Yu L, Wu Q, Tso P, Tong Q, Xu Y. "Apolipoprotein A-IV Inhibits AgRP/NPY Neurons and Activates POMC Neurons in the Arcuate Nucleus." Neuroendocrinology. 2015 PMID: 26337236
- Vann KT, Xiong ZG. "Optogenetics for neurodegenerative diseases." Int J Physiol Pathophysiol Pharmacol. 2016; 8(1):1-8. PMID: 27186317
- 10. O'bryant Z, Leng T, Liu M, Inoue K, Vann KT, Xiong ZG. "Acid Sensing Ion Channels (ASICs) in NS20Y cells - potential role in neuronal differentiation." Mol Brain. 2016; 9(1):68. doi: 10.1186/ s13041-016-0249-8. PMID: 27342076
- 11. Willard SL, Uberseder B, Clark A, Daunais JB, Johnston WD, Neely D, Massey A, Williamson JD, Kraft RA, Bourland JD, Jones SR, Shively CA.. "Long term sertraline effects on neural structures in depressed and nondepressed adult female nonhuman primates." Neuropharmacology. 2015; 99:369-78. doi: 10.1016/j.neuropharm.2015.06.011. Epub 2015 Jun 24. PMID: 26116816
- 12. Karki P, Smith K, Johnson J, Lee E. "Astrocyte-derived growth factors and estrogen neuroprotection: role of transforming growth factor- α in estrogen-induced upregulation of glutamate transporters in astrocytes." Mol Cell Endocrinol. 2014;389(1-2):58-64. doi: 10.1016/ j.mce.2014.01.010. Epub 2014 Jan 18. Review. PMID: 24447465
- 13. Karki P, Webb A, Smith K, Johnson J, Lee K, Son DS, Aschner M, Lee E. "Yin Yang 1 is a repressor of glutamate transporter EAAT2, and it mediates manganese-induced decrease of EAAT2 expression in astrocytes." Mol Cell Biol. 2014;34(7):1280-9. doi: 10.1128/MCB.01176-13. Epub 2014 Jan 27. PMID: 24469401



MARC U*STAR TRAINEE IN MALAYSIA

KIANA RUSHDAN, a Senior Biology major who has accomplished a lot in her 3 years at Winston-Salem State University, spent her summer in the Universiti Malaysia Sarawak. Kiana earned the opportunity to do a summer research experience on the island of Borneo in Sarawak, Malaysia under the tutelage of Dr. Michael Ceballos (University of Minnesota at Morris) and Dr. Mohd Azlan Jayasilan bin Abdul Gulam Azad (Universiti Malaysia Sarawak). Her research focuses on ecology and conservation in the totally protected forests, observing population differences and densities between the taxa (specifically small mammals) at several elevations, using camera traps. Kiana, a Chancellor's Scholar and the 2016-2017 Miss WSSU is a MARC U*STAR Affiliate. She will be presenting her work at the 16th Annual Biomedical Research Conference for Minority Students (ABRCMS) in Tampa, Florida in November.

