

The National Science Foundation



Alabama Louis Stokes Alliances for Minority Participation



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Executive Summary

The Alabama Louis Stokes Alliance for Minority Participation (ALSAMP) is composed of twelve (12) institutions consisting of seven (7) Historically Black Colleges and Universities (HBCU's) and five (5) majority institutions. The HBCU's are: Alabama A&M University (AAMU); Alabama State University (ASU); Miles College; Oakwood University; Stillman College; Talladega College and Tuskegee University. The majority institutions are: The University of Alabama at Birmingham (UAB); Auburn University; The University of Alabama (UA); The University of Alabama in Huntsville (UAH) and the University of South Alabama (USA). These institutions represent public and private, large and small and teaching and research colleges and universities. Each partner institution has a site coordinator and a management committee to implement program activities on that particular campus.

The HBCU's have significant minority enrollment (near 100%), as well as a history of educating minority students but with limited resources. The majority institutions have an abundance of research scientists and state of the art research facilities but minority enrollments at these institutions range from 12 to 28%. The ALSAMP brings these institutions together in a unique way.

ALSAMP student programs are listed below:

- 1. ALSAMP Summer Bridge Program This program is designed to ease the transition of high school graduates from high school to college.
- 2. *ALSAMP Scholars Program* Each year, high achieving freshman students are recruited into the ALSAMP Scholars Program, a student support program designed to prepare students for graduate school.
- 3. ALSAMP Summer Research Internship Program This program is designed to provide research experience for undergraduate students. Participants work with an assigned research mentor in a laboratory on an on-going research project.
- **4.** *Student Mentoring Program* Each ALSAMP student is assigned a faculty mentor by the appropriate department. The mentor provides academic and other information to the student and is considered the student's advocate.
- **5.** *Drop-In Center/Cooperative Learning Activities* -The core of the ALSAMP retention initiative is the Drop-In Center, a place on each campus equipped with computer technology where students receive skill reinforcement in mathematics, science and engineering.
- **6.** ALSAMP Spring Research Conference Each spring, students and faculty from alliance institutions participate in a spring research conference and project competition.
- 7. Louis Stokes Alliances for Minority Participation (LSAMP) National Magazine ALSAMP has published a national LSAMP magazine for the last twenty years in a collaborative effort with the LSAMP Principal Investigators. The magazine provides a forum through which information is disseminated about current LSAMP projects.
- **8.** Graduate Record Examination (GRE) Preparation for All ALSAMP Students The alliance requires graduate school preparation activities for all ALSAMP students.
- **9.** Bridge to the Doctorate (BD) Program An ALSAMP Bridge to the Doctorate Program has been established at several ALSAMP graduate institutions. Twelve students are recruited into graduate programs to study science, technology, engineering and mathematics (STEM) at the selected institutions.
- **10.** Community College Initiative As required by the LSAMP Phase IV Cooperative Agreement, ALSAMP began a community college initiative designed to increase enrollment and degree production in STEM fields. Each partner institution planned and executed its own initiatives.

Inside this Publication

Two hundred twelve ALSAMP STEM graduates with a brief profile of each are presented as a sample of the hundreds of thousands of students across the country that are and have been supported by the National Science Foundation (NSF) Louis Stokes Alliances for Minority Participation (LSAMP) program. The students are listed by institution along with a brief description of the institution. Several accomplished students appear with longer profiles. This information should be informative and useful; and serve as a resource for universities and others to locate underrepresented minority students for various purposes.

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

The University of Alabama at Birmingham (UAB) is a public university in Birmingham, Alabama. Developing from an extension center established in 1936, the institution became an autonomous institution in 1969 and is today one of three institutions in the University of Alabama System. UAB offers some 140 programs of study through 12 academic divisions leading to various bachelor's, master's, doctoral and professional degrees. UAB is located in the Southside neighborhood of downtown Birmingham. Spanning



around 83 blocks, the UAB campus blends seamlessly with the urban character of the Southside. The campus is roughly rectangular in shape with University Boulevard serving as the main axis of the rectangle and Campus Green serving as the center of the campus. UAB is the state's largest employer, with more than 18,000 faculty and staff and over 53,000 jobs at the university and in the health system. An estimated ten (10) percent of the jobs in the Birmingham-Hoover metropolitan area and one in 33 jobs in the state of Alabama are directly or indirectly related to UAB. The university's overall annual economic impact was estimated to be \$4.6 billion in 2010. The U.S. News & World Report *Top United States Universities and Colleges* lists UAB as a Tier I National University, placing the university in the top quartile of national universities and colleges in the country.

SISTERS IN ENGINEERING: Doctors Stephanie and Candace Watson

Stephanie and Candace Watson are from Canton, Michigan and recent Ph.D. graduates from UAB. Both received support



Stephanie Watson

from the NSF funded Bridge to the Doctorate (BD) program located at UAB. Stephanie, the older sister, graduated from Lawrence Technological University in Michigan in 2005 and younger sister Candace graduated in 2007. Stephanie enrolled at UAB in 2005, was awarded a BD fellowship and graduated with a Ph.D. in civil engineering in 2010. Candace, likewise, enrolled at UAB in 2007, was awarded a BD fellowship and earned her

Ph.D. in 2011. Thus, they both chose the same path to the Ph.D. in civil engineering. Then their paths



Candace Watson

divided. Stephanie's research focused on pre-disaster planning on the state level for natural and man-made disasters and the need for communicating this information to citizens for emergency preparedness. Her extensive research efforts provided her with many opportunities to collaborate with numerous emergency managers across the United States. Candace's research focused on sustainable design techniques and aspects of improving urban/city design methods to reduce energy consumption through renewable energy potential. Her research analyzed how city planning directly correlates with energy consumption in the city of Birmingham. Both sisters have earned special recognition throughout their studies. Stephanie made many research presentations and received numerous awards while completing her graduate education and was named Alabama's *University Transportation Center Student of the Year*. Candace participated in a study abroad program in Cairo, Egypt and presented papers at fourteen various professional conferences, both nationally and globally, traveling to Xi'an, Shaanxi, China in 2010. Presently, Stephanie is employed by Michigan Electric Utility Company, working as an environmental engineer focusing on EPA proposed regulations related to the classification of coal combustion byproducts and coal combustion residuals from coal-fired power plant operations. Just hooded, Candace is now deliberating about her future steps: whether to follow in her sister's footsteps to Michigan Electric Company, or to pursue work with global leaders in improving how energy is extracted, produced and consumed, with a focus on the built environment.

Kelli Boggin graduated from UAB in 2009 with a Bachelor of Science in Mathematics. While at UAB, Kelli



was an ALSAMP scholar. She was also a member of Kiwanis Circle K International, which promotes service, leadership and fellowship. She is currently a 7th grade math teacher at the Camden School of Arts and Technology in Camden, Alabama.

Korey Hayes graduated from UAB in 2010 with a

Bachelor of Science in Mechanical Engineering. While at UAB, he was an ALSAMP scholar. He currently resides in Lafayette, Louisiana and is an off-shore engineer for Halliburton Energy Services. The primary function of his job is to deliver high-grade



explosives down a well and detonate, perforating the well and establish communication between the wellbore and the rock formation in order to produce an economical amount of hydrocarbons.

Brittany Leonard graduated from UAB in 2009 with a Bachelor of Science degree in Chemistry. While at UAB,



Brittany was an ALSAMP scholar and a summer research intern in the Chemistry Department. Presently, she is working as a Physical Therapy Technician at Drayer Physical Therapy Institute while she completes her

studies at Jefferson State Community College to become a Physical Therapy Assistant.

Marion Mitchell graduated in 2009 with a Bachelor of

Science degree in Nuclear Medicine Technology. While at UAB, Marion was an ALSAMP scholar and a summer intern. She is currently working towards a Master of Science in Occupational Therapy at UAB.



Faith Mixon graduated from UAB in 2009 with a



Bachelor of Science degree in Biology. While at UAB, she was an ALSAMP scholar and a summer research intern in the Biology Department. Faith was also a Ronald E. McNair Post Baccalaureate Achievement Program Scholar.

Currently, she works with the UAB School of Public Health in the Department of Health Behavior. She plans to enroll in medical school, with a concentration in obstetrics and gynecology.

Ashia Montgomery graduated from UAB in 2009 with a



Bachelor of Science degree in Biology. While at UAB, she was an ALSAMP scholar. She is currently a second year pharmacy student at the University of Tennessee. Her future goal is to become an independent pharmacist and practice in the southeastern region.

Dr. Chinonye Orizu graduated from UAB in 2004 with a

Bachelor of Science degree in Biology and Chemistry. While at UAB, Chinonye was an ALSAMP scholar. She graduated from the University of Alabama School of Medicine in 2009. She is currently an Anesthesiology Resident at Georgia Health Sciences University in the Department of Anesthesiology and Preoperative Medicine.



Alyssa Scruggs graduated from UAB in 2009 with a Bachelor of Science degree in Biology. While at UAB, Alyssa was an ALSAMP scholar. She was also a National



Science Foundation (NSF) Scholarship Recipient, Minority Scholars Program member and Ronald E. McNair Post Baccalaureate Achievement Program Scholar. She currently is attending Howard University School of Law.

Alyssa is a candidate for the Juris Doctorate and expects to graduate in 2013.

Calvin Sims graduated from UAB in 2008 with a Bachelor of Science degree in Biology with minors in

Chemistry and Business Administration. Calvin was an **ALSAMP** scholar during his undergraduate studies. He currently entering his second year in the UAB School of Optometry. He is The National member in



Optometric Student Association, American Optometric Student Association, and Student Volunteers for Optometric Services to Humanity.

Karlette Stewart was an ALSAMP scholar from 2007 to



2009. She graduated in December 2009 with a Bachelor of Science degree in Biology and is currently a second year pharmacy student at Samford University's McWhorter School of Pharmacy. While at

UAB, she was an ALSAMP summer intern and received a commendation from the Alabama Legislature House of Representatives as a member of the 2007 Alabama Academic Team for academic excellence.

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Dr. Jessica Williams Vincent graduated from UAB with



a Bachelor of Science in Biology in 2003. She attended the UAB School of Medicine and received her M.D. in 2008. She is currently a third year resident in the Department of Neurology at UAB and will complete her residency in 2013.

Mellany George was a BD fellow from 2005-2007. Mellany received her Bachelor of Engineering degree from Auburn University and a master's degree from UAB. She is currently working in industry.



Melody George was a BD fellow from 2005-2007. Melody received her Bachelor of Engineering degree from Auburn University and a master's degree from She is currently working in UAB. industry.

Samuel Jasper is a Ph.D. student in the Department of Science Materials and Engineering at UAB. Upon completion of his Ph.D., he plans to work in the aerospace industry to implement design and develop exploration future space initiatives.





Christophe Jackson was a BD fellow from 2005-2007.

Christophe is currently doing graduate research in physiology and otolaryngology on the role of vocal endurance in trained and untrained singers.

Christopher Lindsey was a BD fellow from 2005-2007. Christopher received a Bachelor of Engineering degree from Tuskegee University and a master's degree from UAB. He is currently working for the government at the Savannah Nuclear Facility.



Lindsey McCall was a BD fellow from 2005-2007. The



BD program provided Lindsey with not only the necessary funding, but with the support and motivation he needed to succeed in graduate school after taking a three-year break from academia.

Hugh Percy was a BD fellow from 2005-2007. Hugh received a Bachelor of Computer Science degree from Oakwood University and a master's degree from UAB. He is currently working at UAB as a computer technician in the Department of Gerontology, Geriatrics and Palliative Care.



Dennis Steverson Jr. is a doctoral student in the



Department of Pathology at UAB. He currently researches metabolic syndrome that involves looking at genes that are involved in the formation of foam cells, which are the progenitor cells of the disease atherosclerosis.

Glenn Terrell is a Ph.D. student in interdisciplinary engineering at UAB. His goal is to produce a mathematical model to predict finished water corrosion potential, given the use of southeastern raw water.



Kendrick White is a Ph.D. student in applied mathematics whose research interest lies in the areas of dynamical systems and continuum theory.



Kendrick has a broad range of intellectual interests and plans to teach in a university setting after completing his dissertation. He is a member of the Society for Industrial and Applied Mathematics (SIAM) and the Golden Key Honor Society.

Desmond R. Villalba is a Ph.D. graduate student in the Department of Physics at UAB. He is a driven individual who seeks to further understand the inner workings of nature on a mesoscopic scale. Desmond is currently working on optimizing an engine which operates within the mesoscopic regime.



Jaquice Danyelle Hughes is a doctoral graduate student in the Department of Civil, Construction and Environmental Engineering at UAB. During her first year of graduate studies, she was inducted into Chi Epsilon, the National Civil Engineering Honor Society. She has maintained a perfect 4.0



grade point average during her two years in the program. Jaquice has visited Egypt as part of a joint program with her department. While there, Jaquice studied international engineering practices and the advantages and disadvantages when compared to U.S. practices.

Karmen McPherson is a first year BD fellow enrolled in



materials science and engineering at UAB. Her research is centered on drug delivery platforms. She plans to focus her studies in the area of mucoadhesive polymer systems. Karmen has attended the Alabama Composites Conference to learn more about different projects in the

materials field.

TaShundra Robinson, a Ph.D. student in the Department

of Civil Engineering, is conducting research on the impacts of amended soil on plant growth and water retention. Upon completing her doctoral degree, she aspires to impart the sustainable methods with the community and work as an environmental engineering



professor encouraging other minorities to obtain Ph.D.'s in their desired fields of study.

Samantha Bromfield is an aspiring epidemiologist at



UAB. Through her graduate studies, she has developed an interest in infectious diseases and international health research. In her two years at UAB, she has had the privilege of collaborating with fellow colleagues in various areas of epidemiologic research.

Alicia Kindred is a former BD fellow, currently serving as the genotyping technician for the Neuroscience Blueprint Core B in the Department of Neurobiology at UAB. Previously, Alicia maintained a GPA of 3.5 or higher. She is



passionate about science and her efforts in research demonstrate her passion. She continues her efforts to pursue a Ph.D.

Ajai Cribbs received a Bachelor of Mathematics from



UAH and a master's degree from UAB. She is currently a math instructor for Folsom Lake College, Cosumnes River College, and Heald College in California. Her goals are to pursue her doctorate in applied mathematics and become a full-time professor at a four-year university,

eventually becoming head of diversity for the campus.

Aqueasha Martin received a Bachelor of Computer

Science degree from Tougaloo College and a master's degree from UAB. She completed one year of graduate study toward a Ph.D. in computer science at Auburn University before transferring with her advisor, Dr. Juan E. Gilbert, to Clemson University to continue her



Ph.D. studies. She is currently working towards a Ph.D. in computer science with a specialization in human-centered computing.

Hadiyah-Nicole Green graduated with a 4.0 grade point average from the Department of Physics at Alabama A&M University before enrolling at UAB. After the BD fellowship ended, she won the National Physical Science Consortium Fellowship to continue her work. She is currently a doctoral



candidate in the Department of Physics, conducting interdisciplinary research with the UAB School of Medicine, Department of Surgery.

Amanda Plain is a BD fellow in the Department of Chemistry at UAB. During her first two years of graduate school, she worked in an organic synthesis lab where she synthesized potential neuraminidase inhibitors. In this research group, she was given the opportunity to do molecular modeling.



Alabama A&M University

Founded in 1875 by a former slave, William Hooper Councill, and later established as a land-grant institution in 1890, the campus of Alabama A&M University (AAMU) is nestled on a hill amidst more than 2,300 scenic acres, just minutes from downtown Huntsville. AAMU has a three-fold mission: teaching, research and extension outreach. It is nationally recognized for its strong commitment to academic excellence and strength in producing a vast number of highly qualified underrepresented minority students to diversify the science, technology, engineering and mathematics (STEM) workforce and contribute significantly to the community, the state and the nation.



AAMU offers 41 baccalaureate degrees (26 in STEM), 23 master's degrees (12 in STEM), one educational specialist degree and four doctoral degrees (three in STEM) within five undergraduate schools (Agricultural & Environmental Sciences, Arts & Sciences, Business, Education and Engineering & Technology) and Graduate Studies. The State Black Archives Research Center and Museum, in the James H. Wilson Building, is a national registered historical site on the hilltop of AAMU.

From Summer Internship Program to Research Scientist - Dr. Dexter B. Watts

Dr. Dexter B. Watts' interests in research and the pursuit of an advanced degree in the sciences climaxed as an AAMU ALSAMP Summer Bridge Internship Program (SBP) participant in 1999 as he performed extensive research using

ALSAMI Summer Bridge Internsing

thermal decomposition of inorganic lactates, citrates and evolved gases, with LSAMP faculty mentor Dr. Jim Thompson. Eagerly completing a B.A. at Talladega College in Chemistry in 2000, he returned to AAMU where the seeds embedded during the SBP internship germinated and led Dr. Watts to work on and complete the M.S in plant and soil science in 2002. He then went on to obtain his Ph.D. in Agronomy and Soils from Auburn University from 2003-2007 where his dissertation was titled: "Mineralization in Soils Amended with Dairy Manure as Affected by Environmental Conditions".

Dr. Watts is the recipient of numerous awards and honors. In 2000, he received the United Negro College Fund (UNCF) Scholarship. In 2006, he was awarded a Certificate of Excellence for an Outstanding Performance and Presentation in the Graduate Student Oral Competition, Soils Division at the Southern Branch American Society of Agronomy Annual Meeting. From 2003-2007 he was the recipient of the United States Department of Agriculture (USDA) Student Career Program (SCEP) Fellowship. In 2011, he joined reigning scholars across the U.S., being recognized for his scholarly contributions and accomplishments in Who's Who in Science and Engineering Scholars.

Dr. Watts has authored and co-authored an impressive number of scientific publications and abstracts in nationally renowned journals and proceedings, and has

been the featured speaker at several regional meetings.

His grantsmanship has amassed more than \$324,000 as a PI and over \$437,500 as Co-PI in research support. He is an adjunct professor with the department of Natural Resources and Environmental Sciences at AAMU. He served as an affiliate assistant professor with Auburn University's Agronomy and Soils Department (2007-2009) and is presently appointed to its graduate faculty.

He is a member of the Soil Science Society of America; the Southern Branch of the American Society of Agronomy; the Soil Water Conservation Society; the International Union of Soil Scientists and the International Soil and Tillage Organization. Dr. Watts is currently employed by the United States Department of Agriculture, Agricultural Research Service National Soil Dynamics Laboratory, as a research soil scientist, Waste Management Program in Auburn, Alabama.

Monica (Bryant) Alexander was a ALSAMP scholar



from 1998-2002 graduated cum laude with a B.S. degree in from Chemistry She AAMU. is currently employed Tennessee with the Valley Authority (TVA) - Browns Ferry Nuclear Plant, as

radiochemical laboratory analyst.

Detrick Black was an ALSAMP scholar from 2006-2009

and earned his B.S degree in Animal Science from AAMU in 2009. He is currently pursuing a M.S degree in Animal Science at Tuskegee University and plans to attend veterinary school to pursue a DVM in 2012.



Denise Edwards was an ALSAMP scholar from 1998 -



2002 and graduated cum laude in 2002 with a B.S degree in Chemistry. She earned a M.S. degree in Physics in 2005 and completed advanced has toward coursework the fulfillment of a Ph.D. at AAMU (nine hours remaining). Ms. Edwards is currently employed with the Nuclear Regulatory Commission (NRC) as

construction inspector.

Tarrell Ezell graduated *cum* laude in 2009 from AAMU with a B.S. degree in Electrical Engineering. During his participation as an LSAMP scholar from 2004-2009, he was engaged in summer research internships at Vanderbilt (2007), University of Arizona (2008)



and AAMU (2009). Tarrell was a BD fellow at UA from the fall 2010 - spring 2011. He is currently an engineer for the Goodyear Tire and Rubber Company in Gadsden, Alabama.

Dr. Rashida Fambro graduated from AAMU in 2003



with a B.S. degree in Chemistry, following her participation in ALSAMP from 1999-2003. She earned a Ph.D. in Pharmacy from the Florida A&M University College of Pharmacy and Pharmaceutical Sciences in 2008. After completing one-year of postgraduate residency training

with the Department of Veteran Affairs in Ambulatory Care (2009) and one year postgraduate residency training in Psychiatric Pharmacy (2010), she is currently employed with the Central Alabama Veterans Health Care System as a mental health pharmacist in Tuskegee, Alabama.

Anita Danielle Garner was an ALSAMP scholar from 1995-1999 and graduated *cum laude* with a B.S. degree in Biology in 1999. She also earned an Associate's Degree in Nursing from Calhoun Community College in 2008. She is currently a registered nurse in a cardiac step-down unit at Huntsville Hospital.



Lenese Grant was an ALSAMP scholar from 2004 -2008



and graduated summa cum laude from AAMU, earning a B.S. degree in Food Science in 2008. She participated in colon cancer research while attending AAMU and was further involved in summer research internship activities at AAMU and NCSU. She was a BD fellow at Auburn University and earned a M.S

in Nutrition and Food Science with an emphasis in food chemistry in 2010. Currently she is at Kraft Foods-Oscar Mayer in Wisconsin, employed as an associate scientist II.

Joshua Horace is a senior engineering major mechanical and recent appointee in the Haven **National** Brook-Laboratories (BNL) Faculty and Student (FaST) Program. supported jointly by Department of Energy (DOE), Office of Educational Programs



and the National Science Foundation (NSF). He was the recipient of an NSF LSAMP supplemental award that supported his participation in the BNL research activities for the 2011 summer.

Tamika Jones was an ALSAMP scholar from 1998-2002



and received her B.S. degree in Electrical Engineering from AAMU in 2002. She is currently pursuing a M. S. degree in Management at Indiana Wesleyan University in Marion, Indiana. Ms. Jones is a global on-boarding specialist at Cummins Business Services in Columbus, Indiana.

Jasma McDonald graduated summa cum laude in three and a half years years, earning a B.S. degree in Biology

from AAMU in 2010. As an LSAMP scholar from 2007-2010, she also participated in summer research internships at Washington University (2010) and AAMU (2008 and 2009) in genetics and reproductive respectively. studies. McDonald was involved in research that examined the relationship of leptin and cytogenetic linkages to presented reproduction and



preliminary research findings at state and national meetings including, the Alabama Academy of Science, and the American Society for Cell Biology Conference. She is currently enrolled in the dental school (DDS) program at Meharry Medical College School of Dentistry in Nashville, Tennessee.

Volonda Reedus was an ALSAMP scholar from 1995-

1999 and graduated in 1999 from AAMU with a B.S degree in Biology. She then earned a M.B.A with a concentration in marketing in 2003. She is now employed with the Army Contracting Command at the Redstone Arsenal and is also a realtor with Keller Williams Realty of Madison.



Carmen (Sturdivant) Roberts was an ALSAMP scholar



from 1998-2002 and graduated magna cum laude in 2002 with a B.S. degree in Biology. She also earned a M.S. in Communicative Sciences & Disorders in 2004 from AAMU. She is currently a speech-language pathologist with the Cobb County School District in Marietta, Georgia.

Kevin Simmons graduated in 2008 from AAMU with a B.S degree in Computer Science Engineering. He was an ALSAMP scholar from 2004-2008 and participated in summer research internships Berkeley, and NASA in Hampton, Virginia in 2007. Kevin was a BD fellow at



Auburn University and earned a M.S. degree in 2010. He is currently a research scientist I for UAH on the Redstone Arsenal and plans to pursue coursework toward a Ph.D. at UAH in system engineering in 2012.

Emily Worthy is a 2008 graduate of AAMU, earning a B.S. degree in Biology while an ALSAMP scholar participant and an honors program student from 2004 -



2008. She is currently attending Nursing School at the UAB.

Alabama State University

www.alasu.edu

Alabama State University (ASU) was founded in 1867, in Marion, Alabama, as a school for African-Americans. The school started as the Lincoln Normal School with \$500 raised by nine freed slaves now known as the Marion Nine, making ASU one of the nation's oldest institutions of higher education founded for Black Americans. Today, ASU, located in Montgomery, Alabama, is a widely respected, world-class institution of higher learning which welcomes students of all races. ASU offers nearly 50 undergraduate and graduate degree programs, from our historic teacher education program to strong STEM degree programs, which include a Ph.D. in microbiology. The more than 5,600 students who attend ASU



are as diverse as the academic offerings, with students from more than 40 states and various countries seeking a top-notch education that extends far beyond the walls of a classroom. ASU is proud of its rich heritage and devoted to helping its students become the leaders of today and the future alike. At ASU, you will receive a world-class education from faculty members who have the knowledge and dedication to help make your dreams a reality.

Not Forgetting his Roots - A Product of Alabama State University Giving Back

Dr. Carl S. Pettis was the first Ph.D. graduate of the Alabama BD Program, receiving his doctorate in Mathematics from Auburn University in 2006. He is a proud alumnus of ASU where he was awarded in 2001 a Bachelor of Science degree in Mathematics and in 2003 a Master of Science degree in Mathematics.

After returning to his alma mater in 2007, Dr. Pettis did not shy away from getting involved in numerous scholarly campus and community activities. He currently serves as the chair of the Department of Mathematics and Computer Science and is the principal investigator for three federally funded initiatives: the Alabama Louis Stokes Alliance for

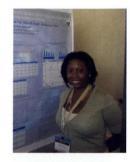
Minority Participation (ALSAMP); the Alabama Alliance for Students with Disabilities in Science, Technology, Engineering, and Mathematics (AASD-STEM) and the director of youth programs for the ASU Division of Continuing Education where he coordinates K-12 educational activities such as the National Summer Transportation Institute (NSTI) and the Summer Kid's Youth College Adventure Program (SKYCAP). Dr. Pettis enjoys molding young minds and working with youth to enhance their STEM aptitude.

As a researcher, Dr. Pettis is a published author of several mathematical papers and was named the 2010 STEM Faculty of the Year by his colleagues and the students from the College of Science, Mathematics and Technology. Additionally, he receives frequent requests to speak at various regional and national programs and conferences.



He believes that the BD program served as a profound catalyst in his career as a mathematician. The financial support he received enabled him to focus and immerse himself in academic endeavors. The BD program provided him with an opportunity to broaden his exposure in the field of mathematics by attending important conferences and connecting with aspiring scientists throughout the country.

Courtnee' R. Bell recently finished her Master's degree in Biology at ASU. This will mark her second degree from ASU because she was a 2007 ALSAMP honor graduate in biology. During her graduate studies, Ms. Bell was able to publish her research findings and present at a number of regional and national conferences.



Angela Bell-Taylor graduated from ASU with a Bachelor's degree in Chemistry and two minors



(mathematics and biology). As an honor graduate, Bell-Taylor embarked on an industrial career in the area of petrochemicals. This former ASU ALSAMP scholar decided to pursue her Ph.D. in Organic Chemistry at Auburn University. She has received funding from the BD and the GK-12 fellowships. Bell-

Taylor hopes to finish all requirements for her Ph.D. by the end of summer 2012.

Dana Bolden is a 1997 graduate of ASU. She received a

Bachelor's degree in Chemistry from ASU. A degree in STEM truly prepares you for anything. With that in mind, Bolden attended Samford University in Birmingham, Alabama to pursue her J.D. degree which she completed in May of 2000. She currently works as an attorney for Boardman, Carr, Weed and Hutcheson, PC.



Dr. Quenton Bonds is a research electronics engineer at NASA Goddard Space Flight Center. Dr. Bonds has



worked with HR and senior management to establish a pipeline for ASU students to complete internships and engage in cooperative learning experiences at Goddard. After completing a Bachelor's degree in Mathematics in 2002, Dr. Bonds pursued his dream of being an

engineer. He studied for a year at UAB then moved on to the University of South Florida as a BD scholar. Dr. Bonds completed his doctoral degree in Wireless Technology during the summer of 2010. Moses Davis graduated in 2009 from ASU with a Bachelor's degree in Mathematics. As an ASU ALSAMP scholar, Davis participated in two NASA Internships at

Goddard Space Flight Center in Greenbelt, Maryland and Marshall Space Flight Center in Huntsville, Alabama. In addition, he participated in summer research at Oak Ridge National Laboratory. He was awarded a BD Fellowship at Auburn University and is currently a doctoral student in the



Department of Industrial and Systems Engineering.

Dr. Michelle J. Foster received the Bachelor's degree in Mathematics from ASU in 1996. She completed her master's and doctoral degrees at Auburn University in 1997 and 2000, respectively. Dr. Foster then began her



teaching career at Wingate University. In 2007, she returned to ASU where she currently serves as an associate professor of mathematics. She is the program coordinator of the **National** Summer Transportation Institute sponsored through the Division of Continuing Education. She is also the coordinator of the Bridge to the

Post-Baccalaureate Program for the Alabama Alliance for Students with Disabilities in STEM, a National Science Foundation project.

Alanzo Granville is a former ASU ALSAMP scholar.

After graduating with a bachelor's degree in Mathematics, Granville was awarded a BD fellowship from The University of Alabama (UA). Upon completion of his master's degree in mathematics at UA, Granville enrolled at UAB to pursue his doctoral degree in the interdisciplinary engineering program within the



UAB Mechanical Engineering Department. His research could possibly help to avert or prevent military and civilian casualties with regards to bio-chemical attacks, air borne chemicals, and natural disasters.

Nicole D. Gray completed her Bachelor's degree in



Chemistry at ASU. Gray is currently a Ph.D. student at UAB in the Department of Mechanical Engineering. Before attending UAB, Gray was a BD fellow at UA. She has had numerous research experiences in public health, chemistry and engineering. This exposure to various disciplines led Gray to

embark on an interdisciplinary research focus entitled "The Development of a Knowledge-Based Data Correlation Tool for Medical Science Data."

Sharniece Holland is a Ph.D. graduate student at UA.

She began her academic career as an ASU ALSAMP scholar. She graduated in 2010 with a Bachelor's degree in Mathematics. As an undergraduate student, Holland participated in a summer research program at The University of Iowa and a mini-semester at



Brookhaven National Laboratory in Long Island, New York. Her current research is on Interactive Techniques for Solving Linear Systems. The BD fellowship has afforded Holland the opportunity to spread her wings as a mathematician and pursue her educational goals.

Cadavious Jones is a doctoral student in the Department of Mathematics and Statistics at Auburn University. He



began his academic career at ASU as an ALSAMP scholar. He received his Bachelor's and Master's degrees in Mathematics from ASU. Jones has a keen interest in developing mathematical innovations that may be of interest to hospitals, schools and the U.S. Department of Defense. research for applying Hamiltonian graphs to disaster situations for computing network systems won

him first place in the ALSAMP Doctoral Research Competition for mathematics.

Dr. Raynetta Prevo-Williams is an associate professor of mathematics at ASU. She completed her doctoral studies at UA in 2002. She has two master's degrees, a M. S. degree in Mathematics from ASU and a M. A. degree from UA. Dr. Prevo-Williams began her academic journey at ASU, where in 1995 she graduated with a Bachelor's

degree in Mathematics. She has served as a mentor for the



ASU HBCU-UP grant as well as the ALSAMP program. Additionally, she has worked with NASA summer youth programs to infuse STEM knowledge in tomorrow's scientists.

Dr. Cheryl Robertson is currently doing her residency at Vanderbilt Hospital in Nashville, Tennessee. She began her career as an ASU summer bridge participant in 2001. In preparation for her future as a doctor, Robertson did a research internship at the University of Illinois UC



and participated in two medical internships at the University of South Alabama in Mobile, Alabama. She completed her Bachelor's degree in Biology in 2005. From there, she enrolled in the M. D. Program at the UA Medical School. In May of 2008, Dr. Robertson completed all requirements for graduation. Dr. Robertson completed her internship at Duke University in May of 2011 before moving on to her current position in Nashville, Tennessee.



Timmy Sanders graduated from ASU summa cum laude, with a Bachelor's degree in Mathematics. As an ASU ALSAMP scholar, Sanders excelled and showed great potential as a future researcher. He was awarded a BD fellowship from Auburn University in 2008 and is currently pursuing a Ph.D. in Statistics.

Derek Jermaine Simon was an outstanding ALSAMP

mathematics scholar at ASU. After graduating in 2003 with a Bachelor's degree in Mathematics, Simon decided to teach in the Montgomery Public School system (MPS). During his tenure with MPS, Simon served as head of the mathematics department. He completed his Master's degree in



Mathematics from ASU in 2005. Simon was awarded a BD fellowship from Auburn University in 2008. His research interest is in the area of design theory. Simon has

worked as a laboratory instructor and graduate assistant while at Auburn University. He also taught at ASU as a finite mathematics adjunct instructor. Once Simon completes his doctoral degree he would like to teach on the collegiate level.

Dr. Carolyn Simmons-Johnson is currently an associate



professor of mathematics at ASU and a 1987 graduate of ASU. Dr. Simmons-Johnson completed her Master's degree in Mathematics in 1990. Her research area is applied mathematics and she received her doctoral degree from The University of Alabama in 2004. She has been a wonderful addition

since joining the Department of Mathematics and Computer Science at ASU. She has served as a mentor for the ASU HBCU-UP grant as well as the ALSAMP program.

Dr. Melanie Eddins Spencer received a Bachelor's

degree in Mathematics from ASU in 1997. In 2001, she graduated from UA with her Master's degree in Mathematics. Three years later, Dr. Eddins-Spencer completed her Doctoral degree from UA in Mathematics.



Dr. Tracy Tullie is currently an associate professor of



mathematics at North Carolina A & T University. He completed his doctoral degree in 2002 at North Carolina State University. He graduated from ASU in 1995 with a Bachelor's degree in Mathematics.

Dr. Marcus E. Vandiver is an education specialist with

Alabama Department of Education's (ALSDE) Federal Programs section. Currently, he is the coordinator for the federallyfunded School Improvement Grant program for improving schools under strict guidelines and constraints. time His responsibilities include program administration, research and data



analysis, and fiscal management of close to \$58 million. Vandiver has trained school professionals in several states on topics such as utilizing data for school improvement, school bullying, classroom management, behavior and discipline, and school culture and climate. At ASU, Vandiver was an ALSAMP scholar. In 1998, he earned a Bachelor of Science in Chemistry with a minor in mathematics, graduating cum laude. In 2007, he completed requirements for the Doctor of Education in Educational Leadership, Policy and Law at ASU. His dissertation, "Current Practice and Training in School Violence Prevention and Crisis Response Procedures: Perceptions of Alabama Middle School Principals and Counselors," won an outstanding dissertation award through the International Society of Education Planning. In addition to his job responsibilities with the ALSDE, he serves as an adjunct mathematics instructor for ASU and Argosy University Online.

Dr. Tameka Walker is a 2004 ALSAMP graduate of



ASU. She received her Bachelor's degree in Chemistry with a minor in mathematics. In 2004. Walker was awarded a BD fellowship from UAH. As a doctoral student in the Biotechnology Science and Engineering program UAH, she published more than 15 scientific articles and was the recipient numerous scholarships and fellowships. Dr. Walker

successfully defended her dissertation in May, 2011. She plans to focus her career on the research and design of advanced materials, techniques, equipment and/or chemicals that could lead to the advancement of cures for health-related issues.

Auburn University

www.auburn.edu www.auburn.edu/diversity

Auburn University is a comprehensive land, sea and space grant institution – among the few that hold that distinction – occupying more than 1,840 acres and helping fulfill the dreams of over 25,000 students. Auburn University was established in 1856 as the East Alabama Male College. In 1960, the name of the school was changed to Auburn University, a title more in keeping with its location, and expressing the varied academic programs and larger curriculum of a major university.

Auburn University is ranked among the nation's top 50 public universities for the 18th consecutive year by U.S. News & World Report. Students can choose from more than 140 degree options in 13 schools and colleges at the undergraduate, graduate and professional levels.



Diversity serves as a core value at Auburn University. Auburn University recognizes and values the considerable educational benefits emanating from diversity as students are prepared for life and leadership in a multicultural world. In this context, diversity is aligned with Auburn University's land grant mission of providing students with a superior education in service to the needs of Alabama, the nation, and the world. Auburn has institutionalized a number of retention programs for underrepresented students. These programs include: Minority Drop-In Center; Minority Engineering Program; Summer Bridge; Summer Enrichment Experience program and much more.

An Auburn University Success Story

Dr. Nicole Harris was a Summer Bridge participant, an ALSAMP scholar, and a BD Fellow during her undergraduate

and graduate studies at Auburn University. She received a Ph.D. in Mechanical Engineering from Auburn University. During her doctoral studies, Nicole produced and characterized thin film nickel titanium shape memory alloys using equipment specialized for microelectromechanical systems (MEMS).

She also developed a novel technique to investigate the resistivity of the thin film nickel titanium shape memory alloys. Nicole was also a recipient of Auburn University's Presidential Graduate Opportunity Program Fellowship and the Southern Regional Educational Board's Dissertation Fellowship.

She currently works at ThyssenKrupp Steel USA in Calvert, Alabama in the Quality Assurance Department as a developmental engineer on their product and process technology team. Her position requires the analysis of the processing techniques and mechanical properties of the manufactured steel, as well as acting as a technical



liaison between the QAD and the automotive customers. She also serves as interim clerk at her church in Mobile, Alabama and continues to develop educational seminars for the attending youth.

Antonio Benford participated in the NSF ALSAMP



program at Auburn University from 1995-1999. He is a 1999 graduate of Auburn University with a Bachelor of Science in Chemical Engineering. He is currently employed at Farley as a shift supervisor and mentors/tutors middle and high school students through the Alpha Phi Alpha Go to High School/Go

to College Program and the Delta Sigma Theta EMBODI program.

Charria Campbell received a Bachelor of Science in



Chemical in Engineering from Auburn University and a Master of Arts in Education in Secondary Mathematics Education from UAB. She currently serves as the diversity initiatives coordinator for recruitment and retention for the Office of Diversity and

Multicultural Affairs at Auburn University.

Lauren Cammack was a participant in the ALSAMP

program from 2002-2006 at Auburn University, where she completed a Bachelor of Science degree in Molecular Biology. In the summer of 2005, she participated in the Experimental Program to Stimulate Competitive Research/ALSAMP Summer Research Program. She was awarded two research fellowships in the summer of



2006, a NSF REU and an Auburn University-Cell Molecular Biology Undergraduate Research Fellowship. Currently, she works as a microbiologist for the Microbiology Division in the Bureau of Clinical Laboratories of the Alabama State Department of Public Health.

Dr. Brian Gosa was a member of the Auburn University

Summer Bridge Class of 1999. Brian received his Doctorate of Pharmacy degree from the Auburn University Harrison School of Pharmacy in 2006 and currently works at the Tuscaloosa VA Medical Center as a



clinical pharmacy specialist. Prior to becoming employed, Brian completed a pharmacy practice residency in Birmingham, Alabama. Brian is founder of PharmHealth Solutions, a medication management consulting firm that focuses on improving medication therapy outcomes and providing adequate medication education to its clients.

Jamal Holloway was a participant in the 1999 Summer



Bridge Program at Auburn University. He received a B.S. degree in Civil Engineering from Auburn University in 2004. After graduating, Jamal went to work with Volkert and then Southern Company, where he has held positions as a structural engineer

and currently works as a field engineer. Jamal credits the ALSAMP Summer Bridge Program with giving him the foundation and confidence he needed in order to be a successful student at Auburn University.

Kiersten Koen was an ALSAMP participant from 2004 to 2007 at Auburn University, where she received her Bachelor of Science degree in Biomedical Sciences and her Master of Biological Sciences degree



in 2008. Since then, she has been pursuing her Doctorate of Physical Therapy at ASU, where she is scheduled to complete the program in the spring of 2012. She currently serves as president of the Student Physical Therapy Association at ASU and is an active member in the American Physical Therapy Association (APTA).

Charles Lewis was an ALSAMP scholar from 1994 to 1998 at Auburn University where he completed a B.S.



degree in Civil Engineering. He completed a M.S. degree in Business from UAB. Charles holds professional engineer licenses in Alabama, Florida and Georgia. Since 2001, he has worked with the Southern Company in the engineering and construction services organization supporting the company's power plant fleet across the

southeast.

Brian A. Miles was a participant in the 2000 Summer

Bridge Program at Auburn University. He completed a B.S. degree in December 2004. He accepted a project engineer position with Nashville Electric Service in Nashville, Tennessee. Brian credits the Summer Bridge Program at Auburn for his strong



math, science and communication skills throughout his educational studies. His current position is project manager at Eaton Corporation in Houston, Texas.

William Charles Myers participated in the 1998 Summer



Bridge Program at Auburn University. He completed a B.S. degree in Chemical Engineering in 2003. William worked in the textile industry as a process engineer for four years and has spent the past three years working for Michelin as a process engineer. In this position, he has led

projects that have increased production and improved quality at the Michelin plant in Tuscaloosa, Alabama.

Nia S. Bradley is currently a Ph.D. student in Computer

Science and Software Engineering at Auburn University. With the continued financial support from the ALSAMP fellowship program, Nia is confident in her abilities to continue her matriculation through the Ph.D. program.



Dr. Obinna Nnedu was an ALSAMP scholar at Auburn



University from 1995 to 1999 where he earned a B.S. degree in Zoology. He received a combined degree, Doctor of Medicine and Master of Public Health from UAB in 2004. In September 2010, he accepted a faculty position as a clinical

assistant professor of medicine at Tulane University School of Medicine. He currently divides his time between conducting research and clinical teaching.

Tabiatha Robinson was an ALSAMP scholar at Auburn University, where she graduated in May 2001 with a

Bachelor of Science degree in Management Information Systems. She also participated in the Summer Research Opportunities Program at the University of Chicago in 2007. Tabiatha currently resides in the Atlanta metro area and is employed as a business analyst. She attributes



the ALSAMP program for giving her the support she needed to graduate from Auburn University.

Brittney Sellers was an ALSAMP scholar at Auburn University and earned a Bachelor of Science degree in



Biomedical Sciences in 2010. She was granted the opportunity to attend an ALSAMP Research Conference on Capitol Hill. She is currently pursuing a Master of Education degree in Kinesiology and is scheduled to complete the program in the fall of 2011. Upon receiving her master's degree, she plans to

pursue a Doctorate of Physical Therapy.

Dayna Brown Smithers was an ALSAMP scholar at Auburn University, where she completed her B.S. degree in Mathematics in 2003. She completed her M.S. degree

in Mathematics from East Tennessee State University in 2005. She currently holds the position of assistant professor of mathematics at Northeast State Community College and is currently working on her Ed. D. in Educational Leadership and Policy Analysis at East Tennessee State University.



Dr. Kevin Tolliver completed a Ph.D. in Mathematics



with a concentration in Statistics at Auburn University in December 2009. He was awarded the BD fellowship at Auburn. Currently, Dr. Tolliver is employed with the United States Census Bureau, Office of Statistical Methods and Research for Economic Programs, Time Series Staff, where he researches analytical methods in time series as well as reviews papers in other economic

areas of the Census Bureau.

Dr. Carma Cook earned her Ph.D. in Chemistry at Auburn University. She was a BD fellow during the first two years of her graduate studies. She held a post doctorate research associate position in the Department of Chemistry and Biochemistry at Auburn University from June 2009 -



June 2010. She is currently a post doctorate research specialist in the Biology Department at Auburn University Montgomery.

Dr. Kimberly Kendricks earned a M.S. and Ph.D. in



Mathematics from Auburn University in Auburn, Alabama in 2006 and 2007, respectively. She is currently an associate professor of mathematics at Central State University, a Historically Black College and University, located in Wilberforce, Ohio. Since joining Central State University in 2007, she

has served as the principal investigator or co-principal investigator for over \$1.5 million internally to the university and a sum total of \$3.5 million collaboratively with neighboring institutions.

Dr. Charmaine Porter O'Reilly was a BD fellow from 2003 to 2005 at Auburn University, where she completed her Master of Biological Sciences degree. She received her Doctor of Dental Surgery from the University of North Carolina (Chapel Hill) in 2009. She was one of three



students to graduate with honors with distinction. Since then, she has been pursuing an advanced training program in pediatric dentistry at Baylor College of Dentistry (Dallas, TX) where she is concurrently working on receiving a Master of Science degree in Health Professions Education.

Michael Grady received a Bachelor and Master of



Science degree in Electrical Engineering in 2008 and 2010 respectively, from Auburn University. He was awarded the BD fellowship in 2008. Michael's research focused on the design and construction of a stainless steel coaxial probe used to find the radio frequency properties of materials at high temperatures.

Brittany Green was a 2008–2010 BD fellow. She received a Bachelor of Science degree in Mathematics from Birmingham Southern College and is currently a graduate student Auburn industrial engineering at University.



Jarrett Chapman attended North Carolina Agricultural



and Technical State University (NC A&T), where he received a B.S. and M.S. in Industrial Engineering. Jarrett was accepted into the industrial and systems engineering Ph.D. program at Auburn University in the spring of 2008.

Moses Davis is a doctoral student in the Department of

Industrial & Systems Engineering at Auburn University. After receiving his Bachelor of Science degree Mathematics in May 2009, Moses was awarded the BD Fellowship. He plans to focus his studies in the area of occupational safety & ergonomics with a minor in statistics.



Kevin Simmons was a recipient of the BD Fellowship at Auburn University. He completed his Master of Software Engineering degree at Auburn in August 2010.

Derek Fortson, 2003-2005 recipient of a BD Fellowship at Auburn University, currently works as a business analyst for Wellpoint Blue Cross Blue Shield. Derek received a B.S. degree in Biomedical Science and a B.A. degree in Spanish, both from Auburn University.



Iris Hill, 2003–2005 recipient of the BD Fellowship at



University, Auburn received Bachelor of Science degree in Life Sciences and a Master of Science degree in Biology from Auburn University. She currently works in industry.

James Morris-King received a Bachelor of Science degree in Computer Science from Rensselaer Polytechnic Institute. He was a BD fellow at Auburn University from 2008-2010, where he is currently pursuing a Ph.D. in Artificial Intelligence.



David Laurencio is a third year Ph.D. student and former



BD fellow studying Biological Sciences at Auburn University. His research focuses on the phylogeny and phylogenetics of a small group of stream dwelling "aquatic" anole lizards.

Cheryl Milton graduated from Florida A&M University with a B.S. degree in Mathematics. In 2008, she was accepted into the Applied Mathematics Ph.D. Program at Auburn University and was awarded a BD Fellowship. Currently, Cheryl is in the Mechanical Engineering



Ph.D. Program at Virginia Commonwealth University.



accessibility

Angela Peterson received a Bachelor of Science in Mathematics and a Master of Science in Mathematics from Alabama State University. She was a BD fellow at Auburn University from 2003-2005. She currently teaches mathematics in Montgomery, Alabama.

Michele Burton was a BD fellow at Auburn University

from 2003-2005. She received a Bachelor of Science in Computer Science from Boise State University and a Master of Science in Computer Science from Auburn University. She is currently working in industry as an

analyst



and pursuing a Ph.D. in Human-Centered Computing.

Miles College

For over 100 years, Miles College has provided quality education and opportunities for young people who wish to learn and prepare for life. During our centennial celebration, we observed our rich heritage as Birmingham's only senior Historically Black College and the impact it has made in the lives of our 8,000 alumni. While continuing its original purpose of providing young African-Americans with a chance for a strong college education and values of leadership and service, Miles welcomes people of all races to join its students and graduates. Miles offers 25 degrees in six academic divisions to an enrollment of more than 1,700 students.



Originating in 1896, Miles College is accredited by the Southern Association of Colleges and Schools (SACS), the Alabama State Department of Education, and the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's degrees in 25 degree programs in six academic divisions - Business & Accounting, Communications, Education, Humanities, Natural Sciences & Mathematics and Social & Behavioral Sciences. Miles College is a member of the Birmingham Area Consortium for Higher Education (BACHE), a partnership among the five, four-year colleges and universities in the greater Birmingham area (Birmingham-Southern College, Miles College, Samford University, UAB, and University of Montevallo). BACHE enhances educational opportunities for students and provides services and support to faculty, staff and the community.

Marcus Carwell was an ALSAMP student from 2001-2002 and a biology major. He will receive his Ph.D. from Morgan State University in December, 2011.



Mohayed O. Mohayed was an ALSAMP student from 2004-2008 and a biology major. He is currently a third year medical student at Ross University Medical School.



Teresa Erskine was an ALSAMP student from 2007-2009 and a biology major. She has completed her Master's degree in Microbiology at ASU and is waiting on acceptance into the Ph.D. program at ASU.

Aaron Jeffries was an ALSAMP student from 1997-1998 and a biology major. Mr. Jeffries received a M.S. degree in 2000 from AAMU.





Wanda Jones was an ALSAMP student from 2002-2003 and a chemistry major. She completed her Ph.D. at Tuskegee University and completed a Post-Doc at Cornell University. Currently she is a researcher at Auburn University.

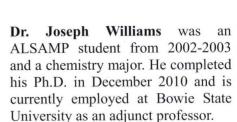
Dr. Michael Lawrence was an ALSAMP student from 1997-98 and a biology major. He completed his degree in pharmacy at Xavier University in New Orleans. He is currently a pharmacy manager in Anniston, Alabama.



Tishawn McWilliams was an ALSAMP student from 1998-1999 and a chemistry major. She completed her M.S. degree at UAH.



Rolandria Whatley was an ALSAMP student from 2000-2001 and an environmental sciences major. She completed her M.S. degree at UAH and currently serves in the Georgia National Guard.





OAKWOOD UNIVERSITY

Oakwood University, founded in 1896, is a Historically Black Seventh-day Adventist four-year private liberal arts institution located in Huntsville, Alabama. Its mission embodies access to educational opportunity, academic excellence



and spiritual development for persons reflecting demographic, economic, cultural and educational diversity.

The ALSAMP Program has had a great impact on STEM student enrollment, retention and graduation on the campus of Oakwood University. The program provided scholarships to STEM majors and implemented a Summer Bridge Program in order to increase enrollment. A Drop-In Center, mentoring, research and a caring staff have all helped to increase retention so that STEM enrollment more than doubled and STEM degrees increased by more than 50%. Of the 43 ALSAMP scholars that graduated: seven obtained the

Ph.D.; eight the M.S.; one D.D.S.; two J.D. and one Doctor of Pharmacy. Five students are currently in Graduate or Professional school. Eleven ALSAMP Scholars have received the M.D. degree.

An Oakwood University Shining Star - Dr. Roycelyn Mentor-Marcel

Roycelyn Mentor-Marcel earned a B.S. degree, *Magna Cum Laude*, in Biology from Oakwood University in Huntsville, Alabama in 1996 and her Ph.D. in Pharmacology with an emphasis on toxicology from UAB in 2002. She earned a Master's degree in Public Health from Johns Hopkins University as part of the NCI/NIH Cancer Prevention Fellowship Program (CPFP). Prior to the CPFP, she completed a CRTA postdoctoral fellowship at the National Cancer Institute (NCI)/National Institutes of Health (NIH) (2003-2005).

Dr. Mentor-Marcel is currently working as a biomedical life scientist for Science Applications International Corporation (SAIC) in support of the Department of Defense Congressionally Directed Medical Research Programs (CDMRP) based in Ft. Detrick, Maryland. She is a member of a multidisciplinary team that supports program management and research proposal funding processes for the U.S. Army. From 2005 to 2009, she was a Cancer Prevention and Control fellow at NCI/NIH where she received extensive training in the cancer prevention field and conducted nutritional intervention studies in animals and humans to identify biomarkers of response to nutritional interventions for colon cancer prevention.

From 1996-2002, Dr. Mentor-Marcel conducted doctoral research on the role of dietary isoflavonoid genistein for the prevention of prostate cancer in a transgenic mouse model. Dr. Mentor-Marcel has been the recipient of competitive awards such as the UAB Comprehensive Minority Faculty and Student Development Program Fellowship (CMFSDP), and the NCI Cancer Prevention and Control Predoctoral Fellowship which she received to complete her doctoral studies. In addition, while in graduate school she was a recipient of the UAB William C. Bailey Award for Excellence in Cancer Prevention and Control Research and received numerous travel awards to present her research at national meetings such as the AACR and Gordon Research Conference.



Dr. Mentor-Marcel has published a number of manuscripts as a result of her research studies. Currently, she is featured in the 2011 NCI/NIH CPFP application booklet. Through her training and current position, she has proven leadership abilities, which include supervising, training, and mentoring students, junior team members and peers, all of which she takes great joy in doing.

Joshua R. Anthony graduated from Oakwood University in 2010 with a B.S. degree in Biochemistry and minor in Mathematics. He was an Oakwood University ALSAMP



scholar and tutor. He interned as a research assistant in the astrobiology lab at NASA, participated in the Biophysical Society Summer Program at The University of North Carolina-Chapel Hill. He published and presented his research at the American

Chemical Society National Meeting, HBCU-UP Annual Conference and the Biophysical Society Meeting. Joshua is currently pursuing a medical degree (M.D.) at Meharry Medical College in Nashville, Tennessee.

Dr. Jaysson Brooks received in 2007 a Bachelor of

Science degree in Biology at Oakwood University in Huntsville, Alabama. What he is most proud of are the community service projects he was involved with both overseas and in the U.S. Jaysson then entered Loma Linda University School of Medicine graduating in 2011. He is



currently an orthopedic surgery resident at Johns Hopkins Hospital in Baltimore, Maryland. He was a participant in the ALSAMP BD program.

Sheila Cooper completed her B.S. degree in Biochemistry



in 2006. While at Oakwood she conducted research on a HBCU-UP grant and presented her research findings the Biomedical Annual Conventions in 2003 and 2006, and at the 2006 American Chemical Society National meeting. Currently she is pursuing a M.S. degree in Food Science at Chapman University and is scheduled to graduate in

May 2012. While there she participated in the Southern California Institute of Food Technologists (SCIFT) new product development competition and her group was awarded 2nd place for development of a dessert called the "Wonton Trio."

Dr. Sonnet Davis received a B.S. in Biochemistry from Oakwood University in 2005. In May 2011, she obtained a Ph.D. in Chemistry from the University of Maryland, Baltimore County (UMBC), where the focus of her doctoral research was the development of approaches based on high-resolution mass spectrometry for the investigation of structure/function relationships in large



RNA molecules involved in viral systems. Her work has led to numerous invitations to present scientific posters at local and national conferences.

Dr. Abdelle L. Ferdinand graduated *Summa Cum Laude* from Oakwood University in May, 2005 with a Bachelor

of Science degree in Biochemistry. She attended St. George's University School of Medicine where she won a full academic scholarship from the government of Trinidad and Tobago. She worked closely with a visiting cardiologist from John Hopkins University to provide care to the people of Carriacou, W.I., as part of



the Cardiology Honors program. She obtained her M.D. with honors in December 2009. She currently practices in Trinidad at the Port of Spain General Hospital.

Talitha Hampton-Mayo earned a B.S. degree in



Chemistry in 2004 from Oakwood University and a MSE in Chemical and Materials Engineering from UAH in 2008. She began her career in the AAMU Department Chemistry as laboratory manager and adjunct instructor (2005-2006). Since 2008, she has worked at Merck & Co., Inc.

as a development engineer, working on process scale-up and technology transfer in the Pharmaceutical Commercialization Technology (PCT) group. She is the founder of Science Divas, Inc. a non-profit organization dedicated to exposing young girls to careers in STEM.

Ebony Hammond graduated from Oakwood University with a B.S. degree in Biochemistry in 2006. She was an ALSAMP scholar, tutor and participated in an ALSAMP internship at AAMU and a research experience for undergraduates program at UAB where she won first place in the statewide research poster competition. She completed



her Master of Science degree in Biochemistry at Texas A&M University and plans to obtain a Ph.D.

Dr. Jonathan Henderson obtained his B.S. degree in Biochemistry from Oakwood University in 1995, his



from medical degree Yale completed University and specialty training **Tufts** at Massachusetts, University in where he gained experience in healthcare initiatives for the homeless. He has received scholarships from the National Congressional Black Caucus and was National Medical a Fellowships Scholar. Currently,

he is in private practice at Bridgewater Family Practice in Conyers, Georgia and has been recently selected to do a fellowship in Integrative Medicine at the University of Arizona.

Ashley Humphrey is a 2006 cum laude graduate of

Oakwood University, earning a Bachelor of Science degree in Biochemistry. She was an ALSAMP scholar and conducted research under a NSF HBCU-UP grant. Ashley attended numerous conferences and earned several awards based on her research. She is currently enrolled at Meharry



Medical College School of Dentistry and will graduate with a Doctor of Dental Surgery degree in May 2012. She is the recipient of the Wendall Cox Scholarship, the Thomas P. Hinman Scholarship and the NDAF/Colgate-Palmolive scholarship.

Dr. Synanda Jobson made history on May 26, 2008 when she became the first Oakwood alumna to graduate



with a pharmacy degree from Loma Linda University School of Pharmacy. In May of 2002, she completed her studies at Oakwood University, graduating with honors with a Bachelor of Science degree in Biochemistry. She then went on to Loma Linda University

in the fall of 2004 to pursue and complete her pharmacy studies. She has returned to her alma mater, Loma Linda University and is currently working as a clinical pharmacist at Loma Linda University Medical Center-Murrieta pharmacy residency program at Glendale Adventist Medical Center in Glendale, California.

Steven K. LaiHing attended Oakwood University on a National Merit Scholarship and graduated with honors with a B.S. degree in Biochemistry in 2006. He participated in the **ALSAMP** Summer Bridge program at AAMU. Steven conducted research Oakwood as part of a HBCU-UP grant and presented his research at



several conferences including the ACS National Meeting. He also worked on a joint water quality and solid phase filter purification project between Oakwood University and the Environmental Protection Agency. Steven accepted a Research Fellowship to Texas A&M University, where he obtained a Master's degree in Biochemistry. He is continuing to pursue a Ph.D. in Biochemistry

Ryan Devon Lang is a third-year medical student at



Vanderbilt University School of Medicine (VUSM) in Nashville, TN. He graduated *summa cum laude* from Oakwood University with a B.S. degree in Biochemistry in May 2009. He was one of 16 students nationwide to be awarded a UNCF-Merck Undergraduate Science Research Fellowship worth \$25,000. He conducted maternal/infant global

health research in Amman, Jordan in the summer of 2010 through VUSM, and will present his research abstract at the American Academy of Pediatrics National Conference in Boston, Massachusetts in October 2011. He will receive the M.D. in May 2013.

Carl Lokko graduated from Oakwood University with a B.S. degree in Biology. During the summers he participated in basic science pancreatic cancer research at

Mayo Clinic under the mentorship of Dr. Urrutia and Dr. Fernandez-Mr. Lokko began his Zapico. medical studies at Harvard Medical School. As vice-president of the Harvard Student National Medical Association, he supported affiliated Community Academy of Science and Health (CASH) that helped introduce high school



students to science and medical careers through interactive teaching and visits to a local hospital. He is currently applying for a residency in general surgery; a career that he hopes will lead him to surgical training in a developing nation. Dr. Jon McIver earned the B.S. degree in Biology from

Oakwood University in 1995 where he was an ALSAMP Scholar and summer research participant. He obtained the M.D. degree from Loma Linda University and completed his neurosurgical residency at the Mayo Clinic in Rochester, Minnesota. While at the Mayo Clinic, he was also a clinical research scholar in their Center for



Patient Oriented Research. He completed his neurosurgery fellowship in Stereotactic and Functional Neurosurgery at the University of Toronto in 2007.

Raginee Edwards Mendoza graduated from Oakwood



University in 2004 with a B.S. degree in Biochemistry. She went on to earn a M.S. degree in Health Education from Baylor University. Raginee is currently writing health and fitness articles for LIVESTRONG.com, giving seminars and conducting

private consultations. She worked as a health educator for Ben Archer Health Center and the Otero County Community Health Council.

Dr. Theodore R. Nicholson III obtained a B.S. degree from Oakwood University in 2004, where he was an

ALSAMP Scholar and tutor. He received a Ph.D. in Biomedical Engineering from Ohio State University. As a graduate student, Dr. Nicholson received the NSF GK-12 Fellowship. He is employed at Crosslink as a research engineer on the Controlled Drug Release Delivery System project, which uses innovative electroactive



polymers for controlling the release of drugs and molecules to enhance wound healing.

Victoria N. Poole graduated from Oakwood University in 2009 with a Bachelor of Science degree in Chemistry, and minor in Mathematics. As



an undergraduate, she served as an ALSAMP scholar, a research and teaching assistant for Oakwood's Mathematics and Chemistry Departments, and intern at NASA's Marshall Space Flight Center. Victoria was awarded the George Washington Carver Fellowship to Purdue University, where she is currently pursuing the Biomedical Sciences Doctoral Track.

Mustimbo Roberts is a premiere scholar and 2005

graduate of Oakwood University with a B.S. degree in Biochemistry graduating cum laude. He enrolled at the University of Rochester



School of Medicine and Dentistry for the Ph.D. in Pathology. He obtained a M.S. degree in Pathology in 2008 with thesis research supervised by Inaki Sanz, M.D. and continues as a Ph.D. candidate. In 2007, the American Association for the Advancement of Science (AAAS) awarded him with the Program for Excellence in Science Award. In 2008, Mustimbo was awarded the University of Rochester Department of Pathology Outstanding Student Contribution Award. Mustimbo is working toward the completion of his thesis research and successful defense of his dissertation.

Dr. Toni-Ann E. Wright attended Oakwood University

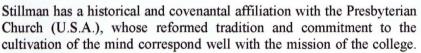
from 2003 to 2007. While at Oakwood, Toni-Ann was an ALSAMP scholar and also received the Merrit Scholarship and the Bonnie Revelle Prize in biology for her summer research presentation. She was also crowned first runner up in the Miss Oakwood Pageant and acted as the vice president for the Oakwood Chapter of the Alpha Chi National College



Honors society. In May 2007, she graduated *magna cum laude* with a B.S degree in Biomedical Sciences. She went on to attend medical school at Loma Linda University. There she received both the BALL and Diversity Scholarships. Dr. Wright recently matched into a pediatric residency program at the University of Tennessee in Memphis.

Stillman College

Stillman is a private liberal arts institution located in Tuscaloosa, Alabama. Founded in 1876, the college is committed to fostering academic excellence and to providing high quality educational opportunities for diverse populations with disparate levels of academic preparation. Primarily a teaching institution, Stillman has a proud and evolving tradition of preparing students for leadership and service in society.





The college, via its constituents, is committed to service for the common good. The entire academic enterprise, under girded with the principles of faith and ethical integrity, manifests constructive compassion as it confidently pursues the best in scholarly inquiry and creative endeavors.

On July 1, 1997, Dr. Ernest McNealey was named the fifth president. Dr. McNealey infused new life into the academic component by strengthening the curriculum, attracting a highly qualified faculty (84% hold terminal degrees), improving admissions standards and enhancing the value of a Stillman education with the addition of guaranteed outcome programs. Notwithstanding, in 2004, the college received its first-ever ranking among top tier schools in U.S. News and World Report and continues to hold this distinction.

Holly Brown was an ALSAMP scholar from 1993 to 1997 when she graduated with a B.S. degree in Biology. She then attended Florida A & M University and earned her Ph.D. in Environmental Science. Dr. Brown is a member of the faculty at Concordia College in Selma, Alabama.



Genola Burke was an ALSAMP scholar from 2002 to 2006 when she earned her B.S. degree in Biology. She is currently attending UAB, pursuing a Ph.D. in Biology.

Ellen Burts was an ALSAMP scholar from 1992 to 1996 and graduated with a B.S. degree in Chemistry in 1996. She went on to complete her Ph.D. in Chemistry from Virginia Tech and currently is an adjunct professor at Case Western University in Cleveland, Ohio.



Nathan Carter was an ALSAMP scholar from 2000 to 2002 and then transferred to Samford University where he earned his Pharmacy Doctoral degree. He currently works as a pharmacist at Riverside Hospital.



to 1996 and graduated with a B.S. degree in Chemistry in 1998. She then attended Florida A & M University and earned her Pharmacy Doctoral degree. Dr. Cheeseboro currently practices pharmacy in Jackson, Mississippi.



Candyce Curry was an ALSAMP scholar from 2000 to 2004 when she completed her B.S. degree in Biology. She then completed a M.S. degree at UAB.

Keisha Gibson was an ALSAMP scholar from 1994 to 1998 when she earned her B.S. degree in Biology. She then attended Meharry Medical College in Nashville, TN and earned her M.D. with a specialization in Internal and Pediatric Medicine. Dr.



Gibson currently serves on the medical staff of Maude Whatley Health Center in Alabama.

Rosianna Gray was an ALSAMP scholar from 1995 to



1997 and graduated with a B.S degree in Biology in 1999. She attended UA and earned a Ph.D. in Biology. Dr. Gray currently serves as an assistant professor of biology and chair of the Department of Natural Sciences at Stillman College.





Marleshia Hall was an ALSAMP scholar from 2004 to 2006 and completed a B.S degree in Biology in 2006. She completed her M.S. degree in Biology and is currently pursuing her Ph.D. in Biology UA.

Heather Horton was an ALSAMP scholar from 2004 to 2008 and completed her B.S. degree in Biology in 2008. She is currently attending Meharry Medical College, pursuing her M.D.



Dr. Geneeco Hudson was an ALSAMP scholar from 1994 to 1998 and completed her B.S. degree in Biology in 1998. She then attended Life University and completed her Doctor of Chiropractic Medicine. Dr. Hudson practices in Georgia.

Marvin Jackson was an ALSAMP scholar from 2000 to 2004 and then completed his B.S. degree in Biology in 2004. He then went on to pursue the Doctor of Chiropractic Medicine in Illinois.





Stacey Jeffries was an ALSAMP scholar from 1995 to 1997 and completed her B.S. degree in Biology in 1999. She completed her M.S. degree and all coursework for the Ph.D. in Biology from UA. She currently teaches high school biology in Florida.

Dr. Terri Norris was an ALSAMP scholar from 1993 to



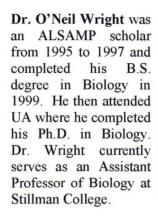
1997 and graduated with a B.S. degree in Biology from Stillman in 1997. She went on to complete her Doctor of Optometry from Indiana University. Dr. Norris has an optometry practice in Birmingham, Alabama.

Hope Pritchett was an ALSAMP scholar from 2004 to 2008 when she completed her B.S. degree in Biology. She is currently in her fourth year at USA Medical School.





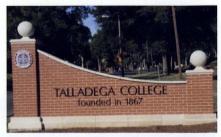
Dr. Virginia Scott was an ALSAMP scholar from 1992 to 1996 when she graduated with a B.S. degree in Biology. Virginia then attended UA where she earned her Ph.D. in Biology in 2009. Dr. Scott currently teaches high school science in the Tuscaloosa area.





Talladega College

Talladega College is Alabama's oldest historically African-American, private, four-year liberal arts college. It was founded in 1867 by former slaves William Savery and Thomas Tarrant, who were assisted by General Wager Swayne of the Freedmen's Bureau and the American Missionary Association. Talladega College's original building, Swayne Hall (1852), is listed in the National Register of Historic Places. Three other buildings are designated as national historic landmarks: Foster Hall, the first dormitory for women (1869); DeForest Chapel, named for the first president, (1904); and Savery Library (1939), named



for one of the founders. The college itself has been designated an official Historic District by the State of Alabama's Historic Commission. The institution is accredited by the Commission on Colleges of the Southern Association of College and Schools.

- The Princeton Review named Talladega College as one of 146 Best Southeastern Colleges, (October 2007).
- The National Science Foundation ranks Talladega College second in the nation, and first in Alabama, in the production of Black Ph.D's in ratio to Black enrollment.
- U.S. News & World Report's America's Best Colleges issue (August 2000) ranked Talladega College among the best regional liberal arts colleges in the nation.



Shawn Bordeaux received a B.A. degree in Physics in 2010. Currently Shawn is pursuing a Ph.D. at Florida State College in Jacksonville, Florida.

Dr. Tanisha Richmond received a B.A. degree in Biology in 1996. She received a DPM degree from Ohio College of Podiatric Medicine and is currently practicing at Richmond Foot & Ankle Clinic, LLC.



Neiunna Jones received a B.A. in Biology in 2005 and is pursuing a Ph.D. in Biology while serving as a teaching assistant/associate in the General Microbiology Department at Howard University.





Bernia Smith received a B.A. degree in Biology in 2004. She is currently employed as a RN at Brookwood Medical Center in Homewood, Alabama.



Angela Kersh received a B.A. degree in Biology in 2001. She received a M.A. degree from University of West Georgia and is currently pursuing a Ph.D. at Clark Atlanta University (CAU) and teaching at Georgia Perimeter Community College in Atlanta, Georgia.

Tymaine Whitaker received a B.A. degree in 2004 and is currently pursuing a Ph.D. at UAH and employed as a software engineer at SAIC.



Tuskegee University

Tuskegee University is an independent and state-related institution of higher education. Its programs serve a student body that is coeducational as well as racially, ethically and religiously diverse. With a strong orientation toward disciplines which highlight the relationship between education and work preparation in the sciences, professions and technical areas, Tuskegee University emphasizes the importance of the liberal arts as a foundation for successful careers in all areas. It is located in Tuskegee, Alabama, which is 40 miles east of the Alabama State Capital in Montgomery, Alabama, and 20 miles west of the city of Auburn. The academic programs are organized into six colleges/schools: (1) the College of Agricultural, Environmental and Natural Sciences; (2) School of Architecture and Construction Science; (3) College of Business and Information Science; (4) College of Engineering and Physical Sciences; (5) College of Liberal Arts and Education and (6) College of Veterinary Medicine,



Nursing and Allied Health. The curricula for the six colleges currently offer 49 degrees including 39 bachelor's, 13 master's, two Doctorates of Philosophy (one in Materials Science and Engineering and one in Integrative Biosciences) and the Doctor of Veterinary Medicine.

A Model of Excellence in Teaching, Research and Service

Dr. Christine Barrow attended Tuskegee University as a biology/pre-med undergraduate and received a B.S. degree in



1994. She went on to pursue her Ph.D. at Howard University. Dr. Barrow studied at the University of North Carolina, Chapel Hill, Tuskegee University in Alabama and Howard University in Washington, D.C. She conducted research on sickle cell anemia and other hemoglobinopathies at the National Institutes of Health (NIH), a research facility located in Bethesda, Maryland. She received a Ph.D. from Howard University in 2003. During the past eleven years, she has been a member of the Prince George's Community College faculty. Prior to being selected to serve as the dean of the Division of Sciences, Technology, Engineering and Mathematics, she served as chair and associate professor in the Department of Biological Sciences. During her tenure at the college, she helped secure several hundred thousand dollars in grants and established the STEM Collegian Center, a co-curricular learning community that provides students with an interest in the STEM fields with opportunities for academic enrichment, professional development and leadership. She has also worked on partnerships and initiatives with NIH, the Prince George's County Public Schools and other institutions of higher education.

Dr. Barrow gives back to the community by participating in environmental based service groups. She participates in the Potomac River Watershed Cleanup and she performs outreach to local schools, speaking to students on environmental, college and career related topics. Throughout her graduate and professional experience, she has mentored and guided hundreds of students toward their academic and professional goals.

Sheritta Cooks earned a B.S. degree in Chemistry and Biology at Tuskegee University in 2005 and a M.S. degree in Chemistry in 2009 at UAB. She is currently pursuing a Ph.D. in Integrative Biosciences at Tuskegee University.



currently employed at The University of South Carolina as the director of pharmacy in the Division of Student Health Services. Her current responsibilities include the overall successful execution of all activities related to the Thomson Student Health Center Pharmacy.



Dr. Wendy Cooke-Chiles received a B.S. degree from Tuskegee University in 1996 and a Doctor of Pharmacy from the University of South Carolina in 2000. She is

Jennifer Cunningham was a BD student at Tuskegee University. She is a doctoral student in the Department of Human Studies at UAB. Jennifer's current research interests are Human Papillomavirus and cervical cancer.



Dr. Cecelia C. Yates-Binder received a B.S. degree and



Ph.D. in Integrative Science and Pathology from Tuskegee University, in conjunction with the University of Pittsburgh School of Medicine. She is currently a postdoctoral research fellow at the University of Pittsburgh School of Medicine in the Department of

Pathology. Dr. Yates-Binder conducts research in the field of dermatopathology and the emerging fields of stem cell biology and regenerative medicine/tissue engineering.

Sandrea Brundidge-Young is a doctoral student at Tuskegee University in the Materials Science and Engineering Program. She recently earned a Master's degree from Tuskegee University in Mechanical Engineering and



holds a Bachelor's degree in Physics from Talladega College. She was a BD fellow at Tuskegee University. She is currently analyzing degradation mechanisms of selective advanced materials (metals, ceramics, and polymeric nanocomposites), upon exposure to ultraviolet radiation, laser radiation and hypervelocity impacts.

Rozlyn N. Chambliss is a doctoral candidate in the



Materials Science and Engineering Program at Tuskegee University, anticipating graduation in May 2012. She is developing the topic, "Molecular Dynamics Study of Tensile and Compression Deformation of Polyethylene and Polyethylene Composites with

Varying Temperature and Strain Rates." Ms. Chambliss has presented her research at more than five national conferences where she authored conference-preceding papers.

Morgan Perry Davis Jr. was accepted into the Ph.D. Program in Materials Science and Engineering at Tuskegee University in August 2010. He earned a Bachelor of Science degree in Mathematics from Morris College in Sumter, South Carolina. Morgan has participated



in Research Experiences for Undergraduates (REUs) at the University of South Carolina. He received the Excellence in Undergraduate Research Award in spring 2009 for his research presentation at the South Carolina Academy of Science Conference in Columbia, South Carolina. Justin O. James graduated with a Bachelor and Masters degree in Electrical Engineering from Tuskegee



University. He currently is pursuing Ph.D. studies at Prairie View A&M University in the Department of Electrical and Computer Engineering where he is conducting research related to tactical and emergency wireless networks. Justin is in his third year of

doctoral studies and has finished all required coursework and is vigorously working on his dissertation.

Gregory Strawder is a doctoral graduate student in Materials Science and Engineering at Tuskegee University. Upon receiving his Bachelor of Arts degree in Mathematics from Albany State University in Georgia, he was awarded a BD Fellowship (2006-



2008) at Tuskegee University. He is presently working toward the completion of his dissertation, which is tentatively scheduled to be completed by December 2011. His research focuses on the enhancements in mechanical and thermal properties of sandwich composite structures with synthetic and natural fillers, as well as hybrid sandwich composite structures.



Garry Ware is enrolled in the Materials Science and Engineering Ph.D. Program at Tuskegee University. He was one of the first BD students. He earned an undergraduate degree in industrial engineering at Florida A&M University and his Master's degree in

Materials Engineering at the University of Dayton in Dayton, Ohio. As a graduate student at the University of Dayton he was afforded the opportunity to work as a contractor within the Air Force Research Laboratory.

Twaskia S. Johnson completed his Bachelor of Science degree in Chemistry at Columbus State University in the spring of 2000 in Columbus, Georgia. He was awarded a scholarship through NSF and the BD Fellowship at Tuskegee University in Materials Science and



Engineering. He also studied under the Alliance for Graduate Education and Professoriate (AGEP) at UAH.

Charnita S. Davidson - Kanyi received a B.S. degree in Biology in 2003 and a M.S. degree in Biology in 2008, both from Tuskegee She is currently University. employed as administrative assistant to the director of the Integrative Bioscience Ph.D. Program Tuskegee University.



Dr. Makesha V. Miggins received a B.S. degree in



Biology from Tuskegee University in 2000. She completed a M.D. from Wake Forest University School of Medicine in 2007. She is a published research author and has made multiple research presentations nationally. She is currently a general surgery resident

at the University of Florida College of Medicine.

Dr. Carla M. Reese received a B.S. degree in Biology

from Tuskegee University in 2002 and a M.S. degree in Cell and Molecular Biology from Tulane University in 2003. She completed a M.D. from the UA School of Medicine in 2008. She is currently a fourth year resident and chief psychiatry resident of inpatient and consultation liaison services at the University of

Maryland/Sheppard Pratt.



Diane Render is a first year BD fellow enrolled in the



Ph.D. Program in Materials Science Engineering Tuskegee and at University. She earned a Bachelor of Arts degree in Mathematics from Albany State University in Georgia. Diane plans to graduate with her Ph.D. and find a career in research, hopefully, continuing what she has begun at Tuskegee University.



Dr. Melissa L. Rudolph received a B.S. degree in Biology in 2003 from Tuskegee University and a D.D.S. from Meharry Medical College School of Dentistry in 2007. She completed a certificate in orthodontics from Howard University School of Dentistry in 2009. She served as an assistant professor in the Department of Orthodontics at Meharry

Medical College School of Dentistry before practicing orthodontics full-time for a company in Texas.

Vertonica Powell is a first year BD Fellow enrolled in the

Materials in Program Science and Engineering Tuskegee University. She earned a Bachelor of Science degree in Mathematics with a minor in Physics from Fayetteville State University in North Carolina. She plans to use her research to find



more bio-renewable resources that can be used in more commercial environments.

Dr. Latasha N. Sellers-Williams received a B.S. degree



in Biology from Tuskegee University in 2001. She completed a M.D. in 2005 at Wake Forest University School of Medicine in Winston-Salem, North Carolina. She was accepted at Stanford University Medical Center's Pediatric Residency Program in Palo California Alto. and completed pediatric training in 2008. She is

currently employed as assistant professor of pediatrics at Oregon Health and Science University in Portland, Oregon.

CaLynna Sorrells is a third year doctoral student and a

member of the Center for Battlefield Communications at Prairie View A&M University. She received a B. S. degree in 2005 and a M.S. degree in 2008 in Electrical Engineering with a concentration in call admission control (CAC) in mobile ad hoc networks (MANET) from



Tuskegee University. After her anticipated graduation in May 2012, CaLynna plans to start a career in research and development.

Dr. Jon Michael Underwood received a B.S. degree in



Biology from Tuskegee University in 2004 and a Ph.D. in Pharmacology from the University of Minnesota in 2009. He is currently employed as an epidemiologist at the Centers for Disease Control and Prevention in Atlanta, Georgia. He works on the

Scientific Support and Clinical Translation Team in the Comprehensive Cancer Control Branch.

Takova D. Wallace received a B.S. degree in Chemistry from Tuskegee University in 2010. She completed a summer internship with IU School of Medicine in 2011. She is currently entering her second year in the Harrison School of Pharmacy at Auburn University.



The University of Alabama

The University of Alabama (UA) is a major, comprehensive, student-centered research university founded in 1831 as Alabama's first public college. Dedicated to excellence in teaching, research and service, UA provides a creative, nurturing campus environment where students can become the best individuals possible, learn from the best and brightest faculty, and make a positive difference in the community, the state and the world. Not only is UA the oldest public university in the State of Alabama but also, in 1837, UA became the first in the state to offer engineering classes.



UA is ranked among the top 50 public universities in the nation for the ninth consecutive year in *U.S. News and World Report's* annual college rankings, fall 2009. UA ranked 10th in the nation among public universities in the enrollment of National Merit Scholars in the 2009 freshman class and led the nation with a record 10 students named to *USA Today's* 2010 All-USA College Academic Team. UA is also a leader in the enrollment of National Achievement Scholars, a recognition awarded to top African-American students, ranking 3rd among public universities and 16th among all universities. UA is #1 in the nation in enrollment and graduation of minority doctoral students under the Southern Regional Education Board's (SREB) Minority Doctoral Scholars Program. A total of 66 SREB fellows have completed their doctorates at UA and 20 SREB doctoral fellows are currently enrolled in this program that encourages minority students to pursue doctoral degrees and become college-level professors.

Dr. Aprile Brown Gibson was one of the first four ALSAMP scholars at UA. She participated in the program



from 1994-1998. Upon graduating in 1998 with a B.S. degree in Chemistry, she was admitted into the USA Medical School. Dr. Gibson works as a radiologist at Bryan Whitfield Memorial Hospital in Demopolis Alabama providing the Radiology Department with services such as

computed tomography, ultrasound, plain film X-ray, MRI, nuclear medicine, and mammography for patients in town and surrounding areas.

Karis Browder is currently a second year medical student

at Meharry Medical College School of Medicine in Nashville, Tennessee. She participated in the ALSAMP program from 2006-2010 and received her B.S. degree in Biological Science in 2010. This past summer, she conducted clinical research



on the treatment of HIV-associated metabolic disorders at Washington University in St. Louis under the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) program.



Dr. Adrienne James Carter was one of the first four ALSAMP scholars at UA. She participated in the program from 1994-1998. Upon graduating in 1998 with a B.S. degree in Chemical Engineering, she was admitted into the UAB Medical School. Dr.

Carter's specialty is internal medicine which she now practices in Birmingham, Alabama.

Felton Fomby was among the first four ALSAMP scholars at UA. He participated in the program from 1994-1998 and graduated in 1998 with a B.S. degree in Electrical Engineering. Currently, Felton is a software developer for Honda Manufacturing of Alabama located in Lincoln, Alabama.



Brandi Freeman participated in the ALSAMP program

from 2006-2011. She received her B.S. degree in Metallurgical Engineering in 2011. Currently, Brandi is a chemistry teacher in the Greater Newark Corps of *Teach for America*, a national corps of outstanding recent college graduates who commit to teach for two years in urban and



rural public schools and become lifelong leaders in expanding educational opportunity. Upon completion of her service, Brandi plans to pursue a Ph.D. degree in Metallurgical Engineering.

Heather Freeman is a software engineer in the Defense

and Information Solutions Division of the ITT Corporation located in Huntsville, Alabama. participated in the ALSAMP program from 2004-2008 and received her B.S degree. in Computer Science in 2008. Currently, she is working on three



tasks that support threat modeling and simulations: missile allocation software, missile quality assurance software and converting a C library to C++.

Matthew Harris is currently a Mercedes-Benz Graduate Fellowship recipient. He participated in the ALSAMP program from 2005-2010 and received his B.S. degree in



Computer Science in 2010. Matthew is working at Mercedes-Benz U.S. International (MBUSI) while completing a Master's degree in Operations Management in the fall 2011 semester. At MBUSI, Matthew works on the Vehicle Program

Management Team which is responsible for the overall master program timing of production trials.

Veronica Hunter participated in the ALSAMP program

from 2000-2004. She received her B.S. degree in Computer Science in 2004 and was accepted into the ALSAMP BD program at UAH. She received her M.S. degree in Computer Science in 2004 and is currently working as a computer scientist in Huntsville, Alabama.



Kamilah Johnson received a B.S. degree in Chemical



Engineering from UA in 2000 and a MBA from Louisiana State University in 2005. Kamilah participated in the ALSAMP program from 1996-2000. She began her career with ExxonMobil at the Baton Rouge Refinery in

2000 as a process contact engineer in the Coordination & Product Quality Department. She subsequently worked as a pipestills process contact engineer in the Operations Support Department. She began her most recent position as specialties and oil movements technical support section supervisor in January 2011.

Kimberly Luvert participated in the ALSAMP program from 1997-2001. She received her B.S. degree in Computer Science in 2002 and a M.S. degree in Computer Science in 2007. She is currently employed at Blue Cross and Blue Shield of Alabama as a programmer analyst in the Systems



Application Development Department where she implements updates and enhancements for the billing web applications.

Shawnessy Scott is an information systems security analyst with Dynetics, located in Huntsville, Alabama.



She participated in the ALSAMP program from 1998-2002 and received her B.S. degree in Electrical Engineering in 2002. Her job consists of providing analysis, evaluation and recommendations designed to promote economy, efficiency and effectiveness in customers' security programs. She

reviews and evaluates customers' programs and operations to determine adherence to policies and procedures.

Bonita Oliver Vincent participated in the ALSAMP program from 1996-2000. She received her B.S. degree in Computer Science in 2000. Bonita is an advisory software engineer with IBM. At IBM, she has enjoyed working with clients and solving their business problems by developing complex web based enterprise applications. More



recently, as a project manager, she is managing and leading internal projects that are transforming IBM into a more globally integrated enterprise by simplifying its business processes and operations. Bonita has worked at IBM for over 11 years and credits her success as an IBMer with the education, experience and support she received at UA.

James Wesley Anderson is in his second semester in the



Biological Sciences Master's Program at UA. He is currently working on a project that deals with investigating the roles that the various isoforms of 14-3-3 zeta proteins have in regulating Tyrosine Hydroxylase (TH) activity in Drosophila (fruit flies). Upon completion of the master's program, he plans on getting a

Ph.D. in the biological sciences.

Marleshia Hall is a Ph.D. student in cell and molecular

biology at UA. She was awarded the BD Fellowship from 2007-2009. As a BD fellow, she conducted laboratory research that is now the basis for her current doctoral work which focuses on determining the genetic and environmental factors of Parkinson's disease and the roles of the dopamine pathway genes in *Drosophila melanogaster* (fruit fly).



Edward Dillon is a doctoral student in the Department of



Computer Science at UA. His area of research is human computer interaction (HCI), with inferences in computer science education. For his dissertation, he is studying programming environments and their ability to help novices learn how to program in introductory courses. As part of his research, he studies an environment called PREOP (Providing

Robotic Experiences Through Object-Based Programming), which was developed at the university.

Brandon Ross Morgan was a BD fellow from 2007-

2009. After receiving his Master's degree in Mathematics from UA, he decided to gain classroom experience by teaching math on the secondary level at Central High School in Tuscaloosa, Alabama. Brandon's passion is showing children from rural areas that mathematics can be exciting and interesting. He is on



schedule to complete the nine hours needed to complete his Ph.D. coursework in mathematics at UA in the fall of 2011.

Marcus Johnson is a first year Ph.D. student in chemistry at UA, focusing on physical organic chemistry. He believes that by understanding materials at a microscopic



level more fundamental understanding of the bulk will be attained. Materials science and nanotechnology have been his primary interest since beginning undergraduate research at Clark Atlanta University (CAU). There, he worked with polymers and the effect of doping with nano-particles.

Julio Proaño is a graduate student in the Electrical and Computer Engineering Department at UA. Julio is

working under the supervision of Dr. Shuhui Li in the area of control and management of microgrids. His research focuses on the efficient integration of small-scale distributed generation units (DGs) into low-voltage (LV) systems to facilitate the supply of electrical power to local customers. He works on integrating small-scale power systems



(like solar cells, wind turbines, fuel cell and batteries) into larger electric utility grids.

Shane Stanley is a Ph.D. student in the Department of Biological Sciences at UA. Shane is an avid researcher who relishes time in the lab and enjoys synthesizing new



ideas with lab colleagues. Currently, he investigates the effects of androgenic compounds and other active metabolic intermediates on the muscle physiology of androgen receptors in the skeletal muscle of the mangrove rivulus. His ultimate goal is to attain a Ph.D. and garner employment as a faculty member at a research institution.

Derrick D. Stokes Jr. is a first year doctoral graduate

student majoring in materials science. During his first semester of graduate studies, he earned a perfect 4.0 grade point average. Derrick is also a National GEM Consortium fellow and has recently presented preliminary data for his Ph.D. research at the National Black Graduate Student



Association Conference in Columbia, South Carolina. Derrick has already had some of his previous research published and has given a number of presentations at scientific meetings. He has also spent a number of summers working with underprivileged youth in Memphis, Tennessee and Jackson, Mississippi.

Tarrell Ezell is a first year Master of Engineering student



at UA. He received his Bachelor of Science degree in Electrical Engineering from AAMU. While there, he traveled to The University of Arizona and Vanderbilt University to perform research with their brightest scientists.

Lyndon Smith Jr. is a graduate student in the Department of Metallurgical and Materials Engineering at UA. Although, he has only been with the department since August 2010, he has maintained a 4.0 GPA and is now working in Dr. Nitin Chopra's group on three projects.



Cassandra Lynn Coleman is a first year master's



graduate student in the Department of Biological Sciences at UA. After earning a Ph.D., her ultimate hope is to create a better understanding of the evolution of pollination

systems and plant diversity in remote and poorly understood tropical areas. She has a profound passion for her work and its potential to benefit the preservation of the world's rainforests.

Ebony Hodges is a third year biology Ph.D. student at UA and a 2007 BD fellow. She received her Bachelor of Science degree in Biology from ASU. Ebony has presented her research at the International Herpesvirus Workshop and gave a presentation at the



American Society for Virology Conference in July 2011.

Kathryn Picard is currently a second-year doctoral



Duke University's Dean's matriculating students.

student in the Department of Biology at Duke University. Kathryn earned Bachelor's degrees in Biology and Philosophy from UA prior to being awarded a BD Fellowship to continue her master's studies in evolutionary biology at UA. In her final year of the BD program, Kathryn was awarded an NSF Graduate Research Fellowship, a Ford Foundation Pre-Doctoral Diversity Fellowship and Graduate Fellowship for Melody Kelley is a doctoral graduate student in the Department of Chemistry at UA. While a graduate

student, she has been a recipient several of awards including: the UNCF/Merck Graduate Fellowship and **NSF** the Graduate Fellowship. Currently, her research



involves using physical organic chemistry to devise catalysts for solar energy storage applications.

Erica Thompson is a M.S. student at UA in the Department of Biological Sciences, researching epigenetic factors that generate the *curly tail* phenotype.



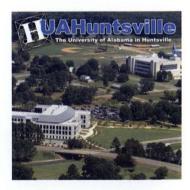
Ekaette Francis Mbong was a part of the ALSAMP BD program from 2007-2009 at UA. She did her studies in

biological sciences (BSC) focusing herpes simplex virus type one (HSV-1). In her first semester in the program, she was inducted into the Golden Key National Society Honor maintaining a 4.0 GPA. After completing her master's research 2009, she was admitted into the BSC Ph.D. program



The University of Alabama in Huntsville

The University of Alabama in Huntsville (UAH) is a public co-educational, state-supported research university within the University of Alabama System. UAH was founded as part of the University of Alabama in 1950 and became an autonomous campus within the UA System in 1969. Located at the southern edge of the Appalachian Mountains, Huntsville is a national center of aerospace and high technology research and development. It is home to NASA's Marshall Space Flight Center and major U. S. Army research and development centers at Redstone Arsenal, including the U. S. Army Aviation and Missile Command (AMCOM) and the U.S. Army Space and Missile Defense Command (SMDC). UAH is the anchor tenant in Cummings Research Park, the second largest research park in the United States and home to more than 225 high technology and research companies with more than 23,000 employees.



U.S. News & World Report ranks UAH among the "150 Best National Doctoral Universities", a distinction shared by only seven percent of the more than 2,000 four-year colleges in America. The university has been recognized by America's 100 Best College Buys for eleven consecutive years for providing students with a high quality education at a competitively low cost. Total enrollment is approximately 7,700, including more than 1,600 graduate students. Undergraduates include 49 percent women and 51 percent men. UAH's incoming freshmen score an average of 25.2 on the ACT examination, best among Alabama's public universities.

UAH offers 61 degree-granting programs that meet the highest standards of excellence, including 30 bachelor's degree programs, 18 master's degree programs and 13 Ph.D. programs through its five colleges: Business Administration, Liberal Arts, Engineering, Nursing and Science. The university received about \$65 million in external funding for active research projects during 2007-2008. Major interdisciplinary research thrusts include: applied optics; propulsion; space plasma and aeronomics; space physics and astrophysics; earth system science; information technology; management of science and technology; microgravity and materials; modeling and simulation; rotocraft systems; systems engineering; structural biology and automation and robotics.

Rising to the Top in the Rocket City

Kimberly A. Hobbs attends UAH as a doctoral student in the Biotechnology Science and Engineering program. She is currently completing her studies at the Hudson Alpha Institute for Biotechnology under the

advisement of Dr. Devin Absher. Her project focuses on studying genetic and epigenetic changes of cyclin-dependent kinase inhibitor genes (CDKN2A and 2B) and their role in heart disease.

Kimberly was an ALSAMP scholar and completed a B.S. degree in 2002 with honors in Biological Science, her major, and Chemistry, her minor at UAH. During her undergraduate years, she was also a NASA Space Grant scholar, a Harold J. Wilson scholar and a UAH Leadership scholar. She completed her M.S. degree in the spring of 2007, also at UAH, as an NSF supported BD fellow. Her published master's thesis work is entitled, "Differential Nitric Oxide Sensitivity in Motor Neurons and Oligodendrocytes: Implication of Central Nervous System Diseases." She served as president of UAH's Minority Graduate Student Association for two consecutive academic years (2005-2007), and currently serves as treasurer for the organization. Kimberly has been the recipient of the NASA Harriet G. Jenkins Fellowship for her doctoral studies and also received the 2010 American Association for Blacks in Higher Education Doctoral Student Conference Grant. She has presented her work at over 10 national conferences including the American Society for Cell Biology and the Society for Neuroscience. In 2008, Kimberly received the National Student Role Model Award from Minority Access Incorporated. She also has had the opportunity to travel abroad



as a student delegate to China, including Beijing, Xian and Shanghai, visiting both the China Academy of Social Sciences and the Chinese University of Nationalities.

Calvin Elkins is a Ph.D. student in UAH's Department of



Science. Atmospheric research is on damaging winds generated by quasi-linear convective systems in the southeastern United States. Calvin has presented numerous educational and professional conferences, most of them through the American Meteorological Society.

addition to schoolwork and research, he is very active in the community.

Christopher Harris is currently a mechanical engineering

intern with IMS Engineers where he works hand-in-hand with senior mechanical engineers. He received his undergraduate degree in Physics from Tougaloo College where he also was an ALSAMP scholar. He



received his Master of Science degree in Mechanical Engineering in the fall of 2006 as a BD fellow.

Victor M. Harris was a BD fellow at UAH from 2004-2006 in Biological Sciences. He studied alloxan-induced diabetes at UAH in the laboratory of Dr. Adriel D.



Johnson, Sr. and completed his M.S. degree in spring 2008. He then entered the Health and Exercise Department at the University of Oklahoma in August 2009, pursuing a Ph.D. degree in Health Promotion. Currently, he is mentoring high school and middle school students through various

programs in the Oklahoma City area.

Khalid W. Holmes was a BD fellow from 2004-2006 in Biological Sciences. He completed his Master's degree in 2010 and served a short stint as an adjunct professor of biology at Drake State Technical College. Early in 2011, he relocated to California to do research for the Jackson

Laboratory. His daily activities are varied and enable him to work on a myriad of mouse models. He may start the day working on mice with irritable bowel syndrome (IBS) and end his day with mice with MS (multiple sclerosis). During a normal day he may treat mice with experimental therapeutic drugs on



no less than four models in an effort to test for their effectiveness against a wide variety of ailments.

Melody Jackson received a B.S. degree in Mathematics



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John Martin III was a BD fellow from 2004-2006,

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Eileen Rojas was a BD fellow in Chemical Engineering

from 2004-2006. She is currently working as an operations research analyst for a defense subcontractor in Huntsville. Eileen has worked in various areas, including modeling and simulation of alternate vehicle systems, data analysis and modernization efforts software tools. A graduate of UAH, she



received both her B.S. degree and M.S. degree in Chemical Engineering.

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