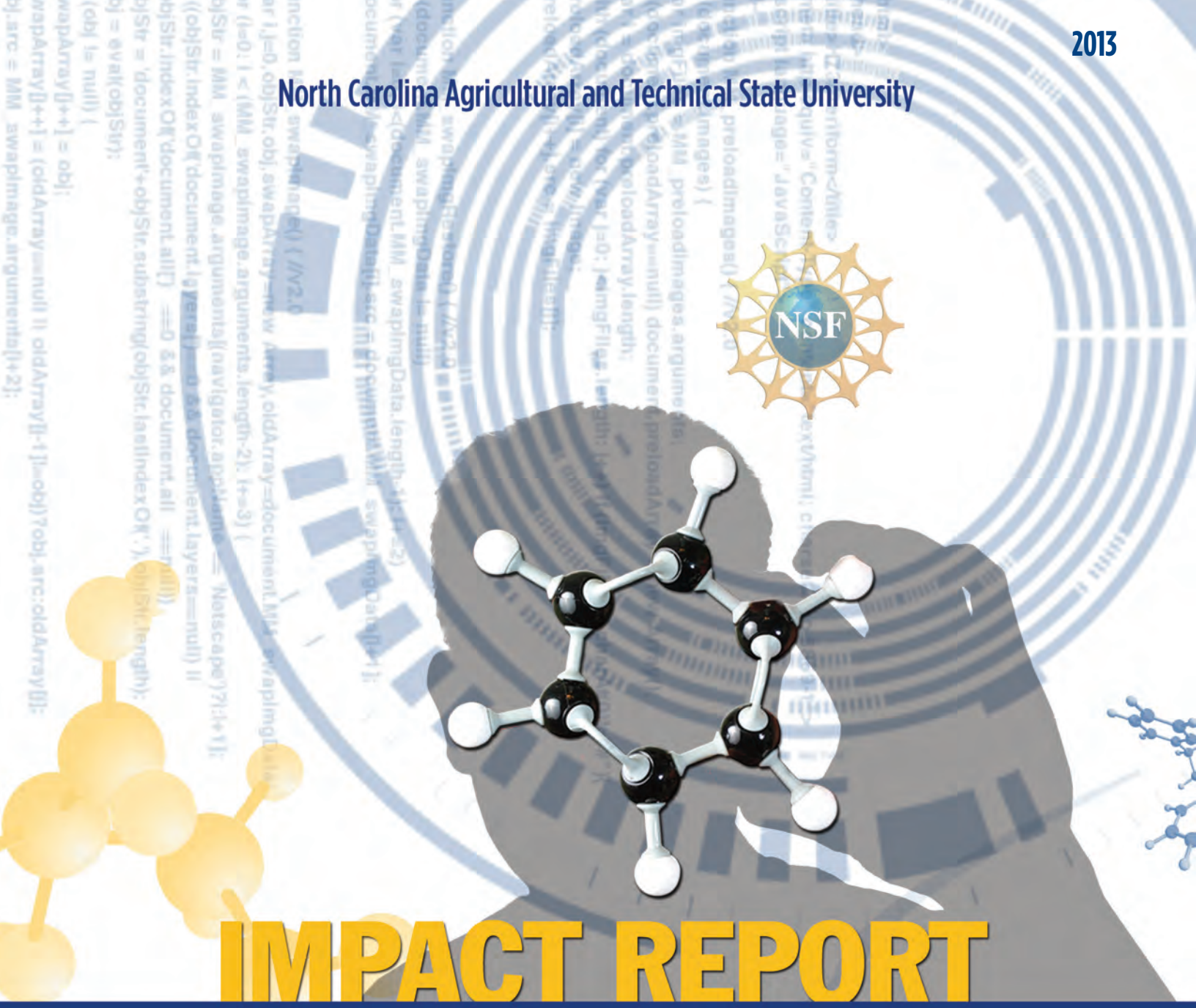
2013

North Carolina Agricultural and Technical State University



IMPACT REPORT

NC-LSAMP

North Carolina Louis Stokes Alliance
for Minority Participation

NCLSAMP Senior Administration
1992-2012

DR. EDWARD B. FORT, Chancellor and Advisory Board Chair
1992-1999

DR. JAMES B. RENICK, Chancellor and Advisory Board Chair
1999-2006

DR. STANLEY F. BATTLE, Chancellor and Advisory Board Chair
2007-2009

DR. LLOYD V. HACKLEY, Chancellor and Advisory Board Chair
2009-2010

DR. HAROLD L. MARTIN, SR., Principal Investigator and Executive Director
1992-1999

Chancellor
2009-Present

DR. CAROLYN MYERS, Provost and Vice Chancellor for Academic Affairs
Principal Investigator
2001-2006

DR. JANICE BREWINGTON, Provost and Vice Chancellor for Academic Affairs
Principal Investigator
2006-2007

DR. ALTON THOMPSON, Provost and Vice Chancellor for Academic Affairs
Principal Investigator
2007-2009

DR. LINDA T. ADAMS, Provost and Vice Chancellor for Academic Affairs
Principal Investigator
2009-2010

DR. WINSER E. ALEXANDER, Provost and Vice Chancellor for Academic Affairs
Principal Investigator and Governing Board Chair
2010-Present

NCLSAMP
ALLIANCE STAFF

NORTH CAROLINA A&T STATE UNIVERSITY
(lead campus)
CHANCELLOR, Dr. Harold L. Martin, Sr.
PRINCIPAL INVESTIGATOR, Dr. Winser E. Alexander
CO-PRINCIPAL INVESTIGATOR AND
PROJECT DIRECTOR, Dr. Marcia F. Williams

PROGRAM MANAGER, Mrs. Juanda Johnson-Taylor
PROGRAM ASSISTANT, Mrs. Kristie J. Mebane
EXTERNAL EVALUATOR, Dr. Rita O'Sullivan

FAYETTEVILLE STATE UNIVERSITY
CAMPUS PRINCIPAL INVESTIGATOR, Dr. Daniel Okunbor
PROGRAM MANAGER, Rokeita Strand
PROGRAM ASSISTANT, Ms. Yvonne Haskins

NORTH CAROLINA CENTRAL UNIVERSITY
CAMPUS PRINCIPAL INVESTIGATOR, Dr. Saundra DeLauder

NORTH CAROLINA STATE UNIVERSITY
CAMPUS PRINCIPAL INVESTIGATOR, Dr. Jerome Lavelle
PROGRAM MANAGER, Ms. Angelitha Daniel

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CAMPS PRINCIPAL INVESTIGATOR, Dr. Laura Miller

UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE
CAMPUS PRINCIPAL INVESTIGATOR, Dr. Banita Brown
CAMPUS COORDINATOR, Mrs. Jodi Turner

UNIVERSITY OF NORTH CAROLINA AT PEMBROKE
CAMPUS PRINCIPAL INVESTIGATOR, Dr. Velinda Woriax
CAMPUS COORDINATOR, Ms. Valarie Deese

WINSTON-SALEM STATE UNIVERSITY
CAMPUS PRINCIPAL INVESTIGATOR, Dr. Elva Jones

North Carolina Louis Stokes Alliance for Minority Participation (NCLSAMP)

Organizational Structure

NCLSAMP Governing Board

CHAIR
Dr. Winser Alexander, Provost and Vice Chancellor for Academic Affairs
North Carolina A&T State University

MEMBERS
Dr. Brenda Allen, Provost and Vice Chancellor for Academic Affairs
Winston-Salem State University

Dr. Warwick Arden, Provost and Executive Vice Chancellor for Academic Affairs
North Carolina State University

Dr. Taffye Clayton, Vice Provost for Diversity and Multicultural Affairs
University of North Carolina at Chapel Hill

Dr. Veronica Nwosu, Associate Dean, College of Arts and Sciences
North Carolina Central University

Dr. Kenneth Kitts, Provost and Vice Chancellor for Academic Affairs
University of North Carolina at Pembroke

Dr. Joan Lorden, Provost and Vice Chancellor for Academic Affairs
University of North Carolina at Charlotte

Dr. Marcia Williams, Director, College of Engineering STEM/Sponsored Programs
North Carolina A&T State University

Dr. Jon Young, Provost and Vice Chancellor for Academic Affairs
Fayetteville State University

CONTENTS

Winser E. Alexander, PhD
Principal Investigator
Email: wealexan@ncat.edu
Phone: (336) 334-7965

Marcia F. Williams,
Alliance Project Director
Email: marcia@ncat.edu
Phone: (336) 285-2651, ext. 52651

Executive Summary

The overall goals of the NC-LSAMP are to: **1)** increase the pool of competent underrepresented STEM graduates with bachelor's degrees; **2)** identify significant factors that promote baccalaureate degree attainment, retention in academic programs, and entry into graduate school in STEM areas; and **3)** increase the number of students who matriculate into STEM graduate schools. Strategies to attain these goals include Summer Bridge programs at Alliance institutions, the sharing of 'best practices' in mentoring and retention, linkages to k-12 institutions and community colleges, campus-level and national laboratory undergraduate research experiences, and academic support activities such as tutoring and mentoring.

NC-LSAMP institutions have made a significant impact on the education, retention and graduation rates of underrepresented minority STEM students. Currently, faculty-mentored undergraduate research projects are conducted on each of the Alliance campuses either during the academic year or summer. Participants have also gained experience in research at sites external to their respective campuses such as the Environment Protection Agency, Duke University, Davidson College, University of Arizona, the Center for Remote Sensing of Ice Sheets (CReSIS) at Penn State University, and Ohio State University. Further, existing relationships with other National Science Foundation (NSF) projects such as the Historically Black Colleges and Universities Undergraduate Program (HBCU-UP), National Institutes of Health (NIH) projects, the US Department of Defense (USDoD), and US Department of Education (USDOE) have afforded NCLSAMP institutions the opportunity to expand undergraduate and graduate research opportunities. Since 2002, eight (8) NCLSAMP faculty and student (FaST) teams have participated in summer research at national research laboratories including Argonne, Brookhaven, and Lawrence L. Livermore.

Major systemic changes accomplished by the Alliance are reflected through the incorporation of cooperative learning activities into STEM course instruction, and early involvement of undergraduate students in faculty-mentored research. Activities include, but are not limited to: **1)** computer-based group study and problem solving; **2)** concept verification in science, technology and engineering through laboratory activities; **3)** team problem-solving in calculus, chemistry, physics, computer science and engineering; and **4)** joint research projects. Other systemic changes include the role of the Offices of Undergraduate Research at Alliance institutions in facilitating the institutionalization of undergraduate research at their respective campuses, and expanding opportunities for underrepresented students.

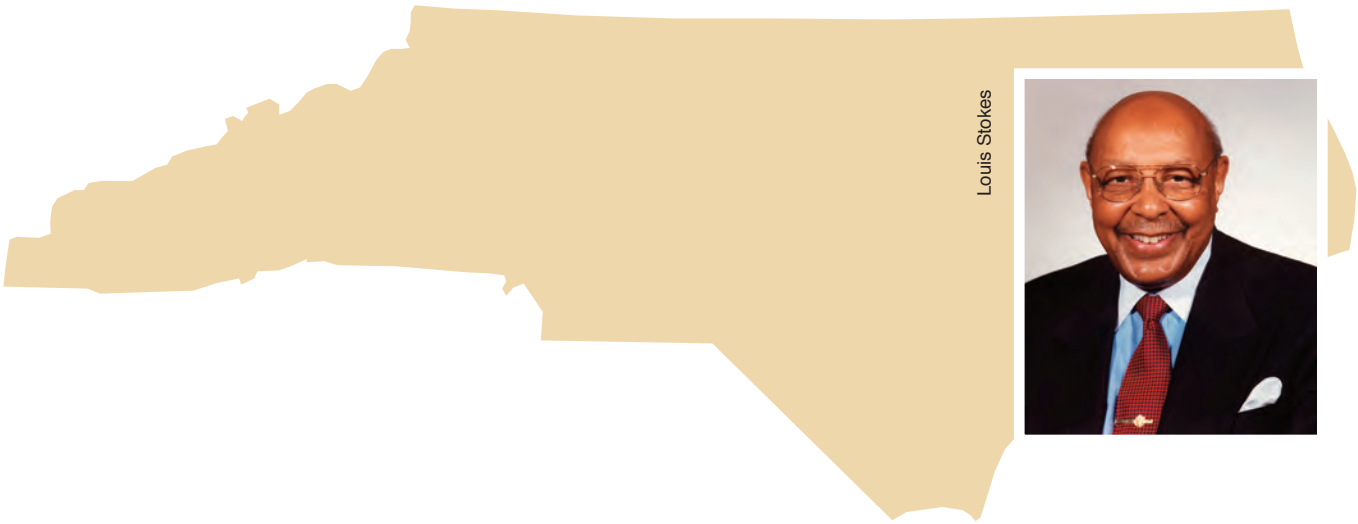
HISTORY

North Carolina Louis Stokes Alliance for Minority Participation

The Alliance for Minority Participation (AMP) was initially funded in 1992 by the National Science Foundation (NSF). The original alliance named NCAMP, consisted of institutions throughout the country, and included North Carolina A&T State University (NCA&T) as the only in-state partner. Others included Prairie View A&M, Stanford University, the University of Washington, and University of Texas-Austin. During the next funding cycle, the alliance model was modified to include only University of North Carolina System institutions. In 1998, University of North Carolina-Greensboro (UNC-G) withdrew from the Alliance, and Winston Salem State University (WSSU) joined. In 1999, the House Appropriations Committee recommended renaming the program in honor of Congressman Louis Stokes, a strong advocate for underrepresented populations.

Currently, the NCLSAMP is comprised of eight constituent institutions of the University of North Carolina System. The uniqueness of this alliance lies in its diversity of participating universities and research focus areas, as well as program autonomy allowed for each participating campus. North Carolina A&T State University (NCA&T), an 1890 land grant and historically black institution, and ranked third in sponsored research for the UNC system, serves as lead institution for the Alliance. North Carolina State University (NCSU), and the University of North Carolina at Chapel Hill (UNC-CH), two flagship institutions within the system are also Alliance partner institutions, as well as the University of North Carolina at Charlotte (UNCC). Fayetteville State University (FSU), North Carolina Central University (NCCU), and Winston-Salem State University (WSSU) are HBCUs that contribute to the STEM pipeline through the production of students (primarily African American) who major in the biological, biomedical, physical sciences, computer and information sciences, and mathematics fields. The University of North Carolina at Pembroke (UNCP) is a primary contributor of Native American and African-American graduates in various STEM disciplines.

NCLSAMP program has been funded for five consecutive funding cycles (1992-2017).Each funding cycle has focused on building upon “promising practices” utilized, and institutionalized in the implementation of the program. The initial funding cycle (1992- 1997) focused on introducing undergraduate students to STEM-related fields and careers through the implementation of high school- to bridge



activities, peer-led mentoring and tutoring, introduction to faculty-mentored research, and graduate schools visits. Students were also provided financial assistance through scholarship and stipend awards. During the second funding cycle (1997-2002), program activities were modified to strengthen the STEM pipeline initially established, and place a greater emphasis on faculty development and undergraduate research experiences. Undergraduate research experience for NCLSAMP participants has been instrumental in the socialization of students into the unique culture experienced in most STEM departments. In addition to undergraduate research experiences, students engaged in study groups and supplemental instruction sessions with their peers.

In the third funding cycle (2002-2007) the program focus began to shift to building the graduate STEM pipeline, while maintaining the existing successful undergraduate programs. Institutionalized activities (i.e. peer mentoring, tutoring, bridge activities) were augmented by expanded participation and undergraduate research presentations in state, regional and national STEM-related conferences. Collaborative research experiences were also developed with national research laboratories such as Argonne National Laboratories, Brookhaven National Laboratories, and Lawrence Livermore National Laboratories, where faculty and student teams conducted ten-week summer research projects with nationally renowned scientists.

The fourth funding cycle (2007-2012) project activities included strengthening collaborations with community colleges, providing post baccalaureate support to former LSAMP students through the Bridge to the Doctorate Fellowship program, supporting international study abroad activities (Africa, and Costa Rica) and , and piloting the NSLSAMP STEM Living and Learning Community for freshmen STEM majors at North Carolina A&T State University.

For the current funding cycle (2012-2017), NCLSAMP will continue successful project activities that have proved to promote the retention of underrepresented students in STEM, and their enrollment into graduate school. These include faculty-mentored undergraduate research experiences; tutoring and mentoring in gatekeeper courses; academic year and summer bridges; supplemental instruction; participation in conferences and symposia through oral and poster presentations; and, international study abroad experiences. New initiatives include Living Learning Communities, STEM Clubs, and Robotics Clubs at respective institutions. ■

NCLSAMP Strategies for Success

The NCLSAMP Alliance utilizes several strategies to increase the productivity of graduate and undergraduate STEM degrees that mirror those espoused by Tinto and others (Pacarella and Terrinzini, 1991):

Diversity of Alliance Member Institutions: The North Carolina Alliance is one of few in the country where the lead institution is a minority serving (HBCU) for both the LSAMP and the Alliances for Graduate Education and the Professoriate (AGEP) programs. This along with flexibility in program design for each Alliance institution has positively impacted degree production for underrepresented students in STEM.

Socialization activities designed to integrate students and faculty into the university culture: Considered one of the most important aspects of the program, NCLSAMP activities are designed to promote the retention of women and other underrepresented students who major in STEM disciplines. Through activities such as monthly meetings, faculty-mentored research experiences, and outreach activities, students gain a "sense of belonging" on Alliance campuses, which increases the likelihood of them completing their academic studies.

STEM Living and Learning Community Orientation Exercise

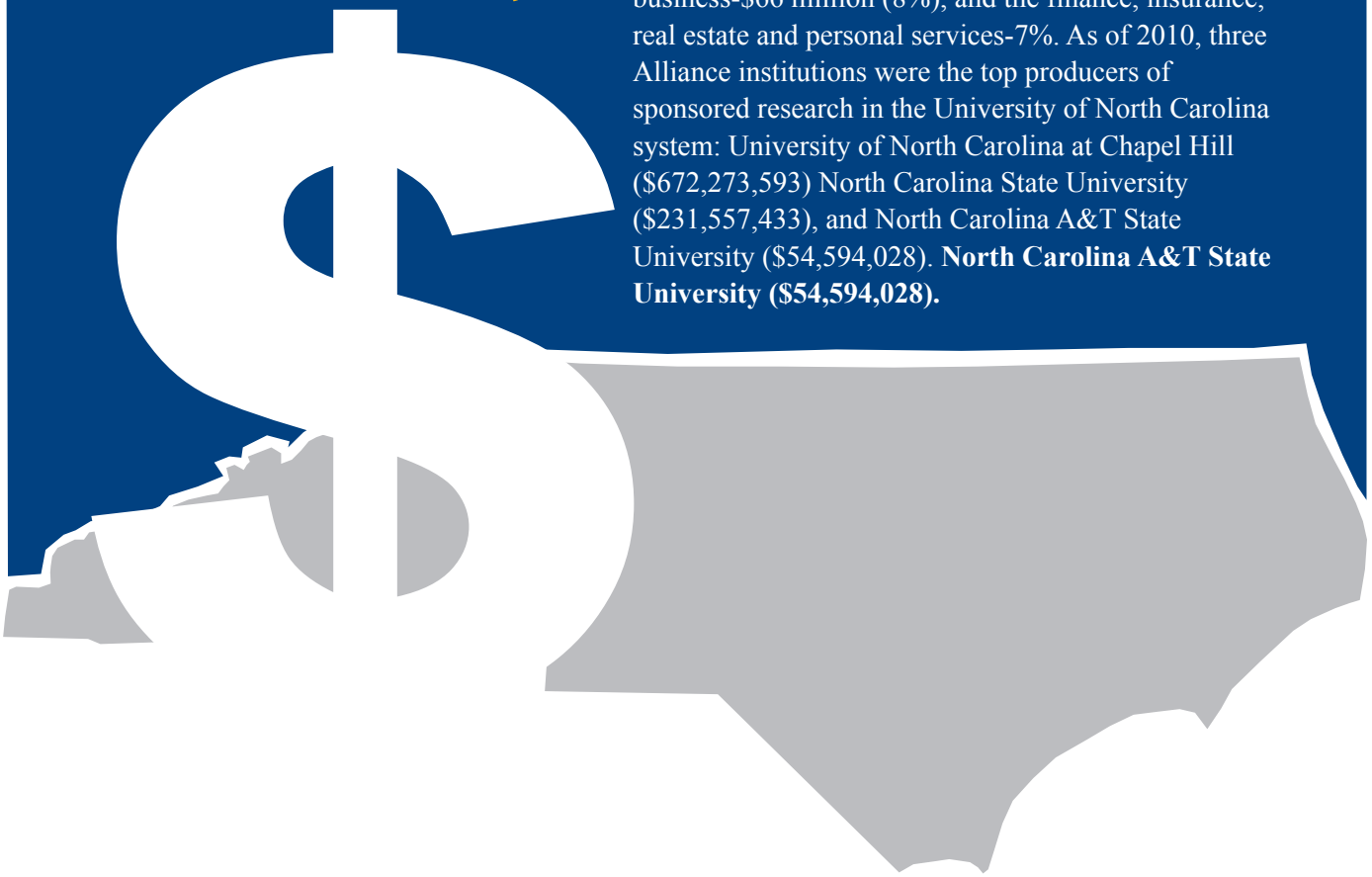
From 2002 through 2007, a longitudinal study was conducted for NCLSAMP participants at North Carolina A&T State University. The purpose of the study was to identify factors that significantly impact on the retention and graduation of students, and their subsequent entry into graduate STEM programs. The study concluded that NCLSAMP participants performed at a higher rate in their academic studies, and were retained at a higher rate than a control group of their peers. This study yielded five published papers by STEM faculty and staff.

Professional development and networking opportunities for students: NCLSAMP participants have attended over 200 professional development workshops, seminars and conferences throughout the country. Workshops have included a plethora of topics that include research ethics, choosing graduate schools that support their research interests, and funding sources for graduate school support. Graduate students have participated in "cross-talks" held quarterly on alliance campuses where they are provided a forum to develop a support network as they matriculate through their respective graduate programs.

Networking and professional development activities for faculty and staff: NCLSAMP faculty and staff have been supported to attend and present papers in over 200 conferences and symposia. This support has positively impacted faculty productivity, which in turn has positively impacted student productivity. Faculty and staff also represent their respective institutions on national boards, councils, and advisory committees such as the National Society of Black Engineers (NSBE), the Institute for Broadening Participation (IBP), and Council on Undergraduate Research (CUR).

Impact of Research on North Carolina's Economy

As of 2008, the University of North Carolina System institutions were awarded $1.1 billion in from federal agencies, state and local governments, industries and other agencies to support research and sponsored programs, of which $72. 3 million consisted of funding for graduate research and sponsored programs. This effort yielded a total economic impact of $840.6 million, including 8,380 new jobs, $290.5 additional wages and salaries, and $90.4 million in additional local and state tax revenues. With adjustments, the UNC system directly introduced $639.6 million to the state economy due to competitive research programs. The $840.6 million generated by UNC sponsored research has impacted all sectors of the state economy: wholesale retail-$395 million (47%), business-$66 million (8%), and the finance, insurance, real estate and personal services-7%. As of 2010, three Alliance institutions were the top producers of sponsored research in the University of North Carolina system: University of North Carolina at Chapel Hill ($672,273,593) North Carolina State University ($231,557,433), and North Carolina A&T State University ($54,594,028). **North Carolina A&T State University ($54,594,028).**



NCLSAMP Bridge to the Doctorate Profiles

Dr. Husniyah Abdus-Salaam

Dr. Husniyah Abdus-Salaam graduated from North Carolina Agricultural and Technical State University with a Doctor of Philosophy in Industrial and Systems Engineering (2011), where she was amongst the first recipients to receive the NC A&T Best Dissertation Award. Dr. Abdus-Salaam earned a B. S. degree in Electrical Engineering at NCA&T (2004), where she participated in the NCLSAMP program as an undergraduate researcher. She continued her education at the University of North Carolina at Charlotte as a Bridge to the Doctorate Fellow, and earned a Master of Science degree in Engineering Management in 2006. Dr. Abdus-Salaam is currently employed as a Systems Engineer and Capacity Analyst for Assembly and Test Technology Development at Intel Corporation. In this role, she is responsible for strategic capacity planning and managing capability strategies and roadmaps for the Chandler factory. Her role also incorporates leadership as Project Manager for the development and alignment of the new strategic solver tool. Continuing in her pursuit of lifelong learning and mentorship, she is the regional co-chair for the Intel Latino Network and Network for Intel African-American employee groups Joint Leadership Conference; and a tutoring/development council for at-risk youth through programs like A.V.I.D (Advancement via Individual Determination) and Big Brothers Big Sisters.

Dr. Wanida Lewis

Dr. Wanida Lewis earned a B.S. degree in Chemistry from Saint Augustine's College in 2005, and was selected for the NSF Bridge to the Doctorate Fellowship Program while pursuing a Master's degree in Analytical Chemistry at North Carolina Central University. In 2012, she earned her Ph.D. in Food Science from North Carolina State University. Her dissertation topic investigates the antioxidant properties in peanut skins and its effectiveness as an anti-inflammatory agent. Her findings have been published in American Peanut Research and Education Society Abstracts and presented at research conferences. Dr. Lewis was also the recipient of the 2012 George Washington Carver Award for her research proposal entitled, "Antioxidant & Anti-inflammatory Properties of Bioactive Compounds Found in Peanut Skins". She is currently employed as a scientist with General Mills.

Dr. Al-Aakhir Rogers

Dr. Al-Aakhir Rogers received B. S. and M.S. degrees in Electrical Engineering from North Carolina A& T State University, as a member of the first Bridge to the Doctorate Cohort at NCA&T. He completed his doctoral degree in Electrical Engineering at the University of South Florida (USF) in 2011. While matriculating at USF, Dr. Rogers he was co-inventor on an issued patent utilizing evanescent wave coupling for an accelerometer device. His sensor was the first of its kind and demonstrated comparable results with current commercial accelerometer. He has published in several peer-reviewed journals. In addition to the NSF BD, Dr. Rogers received several notable honors including an Alfred P. Sloan Minority PhD Fellowship, and a NSF East Asia Pacific Summer Institute (EAPSI) Fellowship. As an NSF EAPSI fellow, he completed an internship at the Instrument Technology Research Center (ITRC), National Applied Research Laboratories in Taiwan. In 2011, he was invited to give a lecture at the 13th Meeting on Optical Engineering and Science (OASIS 2011) in Tel-Aviv. Dr. Rogers is currently a Senior Researcher

on the Technical Staff at Draper Laboratory in Tampa Bay, Florida where he is responsible for developing and integrating new procedures for multi-chip module (MCM) technology. “While pursuing my Master’s degree, I participated in a summer internship at NASA JPL and it was that moment that the light turned on. I was affirmed from the group leader and praised for the good work that I completed that summer. That moment clearly defined that ‘I could do this’...obtain the Ph.D.

Dr. John Shelton

Dr. John Shelton received a B.S. degree in Mechanical Engineering in 2000 from North Carolina A&T State University (NCA&T). After working in industry at the Ford Motor Company, he returned to his alma mater in 2005 to pursue a master’s degree in Mechanical Engineering where he was amongst the first Cohort of Bridge to the Doctorate Fellows at NCA&T. After completing his master’s degree, Dr. Shelton enrolled into the Mechanical Engineering doctoral degree program at the University of South Florida, where he earned a Doctor of Philosophy degree in Mechanical Engineering (2011). He is currently a Department of Energy EERE Postdoctoral Fellow, working at both Carnegie Mellon University and the National Energy Technology Laboratory in Pittsburgh. The goal of the EERE Postdoctoral Fellowship Program is to develop the next generation of scientific leaders in energy efficiency and renewable energy by attracting the best scientists and engineers to pursue breakthrough technologies in a highly prestigious postdoctoral research program. EERE postdoctoral fellowships offer unique research opportunities to talented Ph.D. recipients to engage in innovative research at universities, national laboratories, and other research facilities that are conducting applied research in support of EER.

Dr. Karla Wyatt

Dr. Karla Wyatt received a B. S. degree in Electrical and Computer Engineering from North Carolina A& T State University, a M.S. degree in Biomedical Engineering at the City College of New York, and the MD/Ph.D. from Morehouse School of Medicine. She is currently at Johns Hopkins Hospital as a Resident Physician in Anesthesiology. “During the junior year of my bachelor of science in Electrical Engineering, and my first year in the LSAMP program, I was conducting research on radio-frequency transmitters for a tire material property study. In independent research, I learned that the same devices that were being analyzed and identified for tires were also used in the development of inner cochlear implants of babies who were born deaf. I thought to myself “WOW”; the impact engineering has on the capacity for sustaining and improving human life was profound. It was then that I realized that I wanted to explore the bridge between medicine and bioengineering. I went on to pursue a Masters in Bioengineering followed by a Medical Doctorate. My desire is to bridge these two avenues in the realm of anesthesiology and sensorium technology. I am particularly grateful for the opportunity afforded to me from the NSF grants. I was privileged to participate in countless presentations, conferences, professional development and educational activities through the LSAMP, and Bridge to Doctorate program. The NSF resource is phenomenal in that it provides an avenue to cultivate minds, particularly minorities, to the realm of unimaginable endeavors. This program has shaped my graduate education and I am delighted to have been a selected scholar.”

NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY (Lead Institution)

Established in 1891, North Carolina Agricultural and Technical State University (NCA&T) is a public, historically black, land-grant institution. Throughout its history, NCA&T has maintained a rich tradition in academics, research and outreach. Today, the university's learner-centered community develops and preserves intellectual capital through interdisciplinary learning, discovery, and engagement, and is committed to fulfilling its fundamental purposes through exemplary undergraduate and graduate instruction, scholarly and creative research, and effective public service and engagement. NCA&T has thrived in the traditional focus areas of the land-grant mission: teaching, research and extension. With an enrollment of nearly 11,000 students, NCA&T is the largest historically black university in The University of North Carolina system and the second largest historically black university among the 77 institutions within the nation's land-grant system.

INSTITUTIONAL HIGHLIGHTS

NCA&T has advanced to the forefront in the area of research with its current ranking as a doctoral/research university by the Carnegie Classifications of Institutions of Higher Education, and is ranked third in the UNC system in sponsored research funding.

NCA&T graduates the nation's largest number of African American engineers at the undergraduate, master's and doctoral levels and psychology undergraduates.

True to its heritage, NCA&T is home to the largest agricultural school among historically black colleges, and is the nation's second largest producer of minority agricultural graduates.

NCA&T has been ranked in the top tier of national universities in several categories in the 2013 U.S. News & World Report college rankings, including ranking No. 7 for Online IT faculty credentials and training, and No. 11 among historically black colleges and universities.

In the 2012 ranking of national universities by Washington Monthly magazine, NCA&T is ranked 33 overall and No. 2 in social mobility category out of more than 280 universities.

An interdisciplinary team of scientists and engineers at NCA&T has launched the NSF Centers of Research Excellence in Science and Technology Bioenergy Center, a five-year project to make biomass a more viable source of renewable energy by developing the basic science and technology that will make energy conversions more efficient and costs more affordable.

N.C. A&T outpaced other Triad UNC campuses and the UNC system as a whole in graduating more students with in science and math. According to data provided by the UNC system, A&T increased the number of STEM-related degrees it granted in 2011 by 39.3 percent compared to 2008.

featured scholars

DESTENIE NOCK, is a junior who is currently working toward a dual Bachelor's degree in Electrical Engineering and Applied Mathematics at North Carolina A&T State University and a NCLSAMP Research Scholar who has conducted on-campus research and at Brookhaven National Laboratory under the mentorship of Dr. Abebe Kebede, Professor of Physics. She has received numerous awards for her academic achievements, including being named President of Tau Beta Pi Engineering Honor Society, a Clinton Global Initiative University Participant, and NACME Scholar.

During the summer of 2012, Destenie engaged in participatory action research with change agent leaders in Malawi, in Sub-Saharan Africa, under the mentorship of Drs. Brian Sims, Sharon Hunter, and Elizabeth Barber. Using participatory action research methods, undergraduates, graduate students and faculty co-author with Malawians and present their collaborative research in national and international forums and publications. Currently the team has three papers accepted for presentation in fall 2012 at the International Leadership Association conference in Denver, and another at the International Association for Research on Service Learning and Community Engagement in Baltimore. Student representatives also regularly participate in the Bill Clinton Global Initiative University, to build their global leadership capacities. Focusing on sustainable methods for meeting the needs of Malawian citizens, Destine used creative engineering to design a product that may potentially change the lives of Malawian women.

ERICA ECHOLS graduated from North Carolina A&T State University, with a B. S. degree in Chemistry, and the University Of South Florida, with a M.S. degree in Environmental Science and Policy. She is currently a Coordinator of Diversity Programs at the University of Tennessee. “As a member of the NC-LSAMP program at NC A&T SU, I was afforded the opportunity to perform undergraduate research with a professor in my department (Chemistry), present my project at LSAMP conferences, attend the HBCU-UP Conference in New Orleans, LA, and also gain knowledge about summer internships and other opportunities. After gaining undergraduate research experience, I was encouraged to apply to summer internships. I applied and was accepted to an internship at Cornell University’s CCMR (Cornell Center for Materials Research) REU. It was this summer that opened my eyes to graduate school and I decided to pursue a Master’s degree in the STEM field. Nearing graduation, a conversation with the NC-LSAMP director, Dr. Marcia Williams, enlightened me of a Bridge to the Doctorate opportunity at the University of South Florida. The NC-LSAMP program allowed me to build a network of people who are invested in the success of students. It instilled in me a passion for higher education and STEM research. I hope to inspire students to take advantage of all opportunities that come their way and to be open to where the path of life may lead.”

RODWARD HEWLIN received B.S. and M.S. degrees in Mechanical Engineering at North Carolina A&T State University, and participated as a Research Scholar as an undergraduate. Rodward is currently pursuing a Ph.D. in Mechanical Engineering at North Carolina A&T State University. His achievements include publishing and presenting several papers including, “Evaluation of the Effect of Patient-Specific Geometry on Hemodynamic Flow in Stenosed Carotid Bifurcation Arteries”, a technical presentation at the ASME Early Technical Career Conference (ETCC), Atlanta, GA, in 2011, and “Evaluation of The Effect of Stent Design and Strut Positioning On Hemodynamic Flow in Stenosed Carotid Bifurcation Arteries”, co-authored with Dr. John Kizito and presented at ASME 6th Frontier Biomedical Device Conference, in West Irvine, CA.

EMMANUEL ROWE received dual degrees from North Carolina A&T State University (B.S. in Electrical Engineering) and Morehouse College (B.S. in Mathematics). He is currently pursuing a Ph.D. in Electrical Engineering, and is a Research Assistant at Virginia Commonwealth University. "I had a calculator watch that would always break. I asked my mother to buy me precision screwdriver set to fix it. One day on the school bus while fixing said watch, one of my classmates said 'Emmanuel, you are always fixing that watch. You must be an electrical engineer.' Then it clicked. My research project while participating in NCLSAMP was on the Growth of Yttrium Barium Copper Oxide on Silicon with a Strontium Oxide buffer layer using Pulsed Laser Deposition.

KOREY POUGH is a senior dual major in Civil and Architectural Engineering at North Carolina A&T State University. Korey participated in the NCLSAMP program as an undergraduate research scholar at on campus and at Brookhaven National Laboratory funded by the DOE Faculty –Student (FaST) program. His research was supervised by Dr. Abebe Kebede, Professor of Physics. Korey has been accepted at the University of Arkansas, where he will pursue a PhD in Civil Engineering.

What NCA&T Students Are Saying About NCLSAMP

"The impact that LSAMP has had on my undergraduate career has been very profound in what I would like to do as far as post-graduation plans. As a freshman, my belief was that I would come in to college and finish and look for a career to pursue. That may be true for some people, but for myself I saw more variety of options throughout the years. LSAMP has given me the exposure to serving as a research assistant and providing opportunities to visit graduate programs and entertain opportunities of going to graduate school for either a Master's or Ph.D. For my graduation plans, I plan on going to graduate school after my undergraduate career is over and the motivation for me to make that decision had something to do with my wonderful experience with LSAMP." –David Etim, Undergraduate Research Scholar, NCA&T

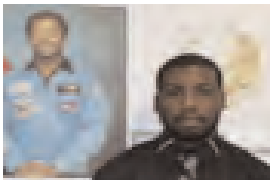
"The LSAMP program has really impacted my experience throughout my undergraduate career. I have been in the program for about 2 years. This program has gotten me involved in undergraduate research at my university, which has allowed me to explore my research interest even further. I personally took a GRE Prep class through my University's Honor's Program, LSAMP also provided a GRE course and it benefits participants greatly. Through poster presentations and oral presentations, participants have been able to lean about interdisciplinary research happening on campus as well as improve their research skills. It has been a pleasure to be involved in this program and I have recommended to many underclassmen interested in research." –Alexis Trent, Undergraduate Research Scholar, NCA&T

FAYETTEVILLE STATE UNIVERSITY

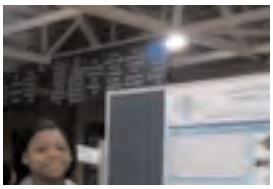
FSU

Fayetteville State University (FSU) is a constituent institution of the University of North Carolina and the second-oldest public institution of higher education in the state. Founded in 1867 as the Howard School for the education of African Americans, today FSU serves a growing student body of over 6,300 and ranks among the nation's most diverse campus communities. New undergraduate degree programs have been established, including undergraduate degrees in biotechnology, communications, forensic science, management information systems, and generic nursing. FSU offers new programs such as the Master of Arts in teaching and the Master of Science in criminal justice. Altogether FSU boasts 43 undergraduate programs, 23 master's degree programs, and one doctoral program in educational leadership.

featured scholars

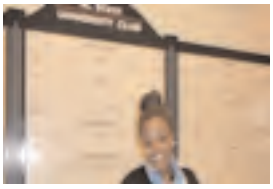


ADRIAN MCLEAN graduated from FSU in fall 2011, receiving a Bachelor of Science degree in mathematics. He is currently pursuing graduate degree at North Carolina A&T State University. Adrian interned at the MIT Lincoln Laboratory in Boston in summer 2012, North Carolina State University in summer 2011. He was a McNair scholar while completing his education at Fayetteville State University. Adrian is a very zealous and highly dedicated student and intends to complete a doctoral degree in applied mathematics.



TECARLA IKARD is a biology major and chemistry minor and currently holds a 3.6 GPA. She is an Honors in the Major (HIM) Recipient and an active NC-LSAMP Scholar. During Spring 2013, Tecarla conducted research on the "Calculation of Vibrational Frequencies, Vertical Electron Affinities and Detachment Energies for the C60 Molecule" under the supervision of Dr. Chara-Castillo. She is a two-time Chancellor's List and a three-time Dean's List Recipient. Tecara will graduate in 2014, and plans to attend graduate school at The University of North Carolina at Chapel Hill to study Epidemiology.

JAKIMA HILL is a forensic science major with a concentration in biology and will graduate from FSU Fall 2013. She currently holds a 3.5 GPA. In addition to being a NCLSAMP Scholar, Jakima is treasurer of the Forensic Science Club, a member of the Fayetteville State Collegiate Chapter of NAACP, Phi Eta Sigma Honor Society and Delta Xi Chapter of Delta Sigma Theta Sorority, Inc. As a LSAMP Scholar, she conducted research on "Synthesis of Sugar-based Surfactants using Hexanol" under the supervision of Dr. Bose-Basu.



TENEIKA ASKEW is a computer science and management information systems major who is scheduled to graduate in 2015. A former OpTimum Scholar, she is currently participating in undergraduate research funded through the NCLSAMP program and is a Dean's List Recipient with a 3.4 GPA. Teneika presented an oral presentation of her NCLSAMP research entitled "The North Carolina Employment Security Mobile Applications". She is currently a Mobile Application Developer for the Association for Information Technology Professionals (AITP), and is completing a summer externship at IBM. She plans to pursue a Master's degree in information technology or computer science.

TERRELL JACKSON, an NCLSAMP Scholar received an award at the 27th Black Engineer of the Year Award (BEYA) and Science, Technology, Engineering and Math (STEM) Global Competitiveness Conference in Washington, D.C. Feb. 7, 2013.

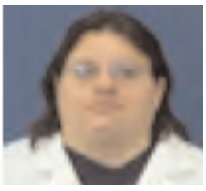
NORTH CAROLINA CENTRAL UNIVERSITY

NCCU

Located in Durham, NC, North Carolina Central University (NCCU) is an accredited Historically Black Institution (HBCU) charted in 1909 as the nation's first publically-funded liberal arts institution founded for African Americans. Since its inception, NCCU has provided a strong and challenging educational environment that prepares students to become productive contributors in a global society. Classified as a Comprehensive Level 1 Institution, NCCU offers baccalaureate, Master of Science, and selected first professional degrees. NCCU is listed regularly in Diversity Magazine's Top 100 Degree Producers of African American baccalaureates and Master of Science degrees in the Biomedical Sciences.

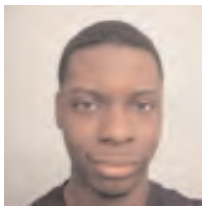
featured scholars

CANDICE MORRISON received a B.S. in biology from University of North Carolina at Greensboro, in 2003, a B. S. in Environmental Science from North Carolina Central University (NCCU) in 2005, and as a BD Scholar, a M.S. in Earth Science from NCCU in 2008. She is currently pursuing a Ph.D. in Soil, Water, and Environmental Science at the University of Arizona, and is expected to graduate in December 2013. Candice's additional achievements include being named Black Graduate Student Association President at the University of Arizona, Alfred P. Sloan Foundation Minority PhD Program in Mathematics, Science and Engineering Scholar (NACME) at University of Arizona (2008 – Present), Graduate Research Associate in Soil, Water, and Environmental Science Department, University of Arizona, and Student Contractor in Methods Development Applications Branch of the National Exposure Research Laboratory at the Environmental Protection Agency, in the Research Triangle Park in North Carolina.



MISTY LYN GREEN received a B.S. degree in physics, and M.S. degree in mathematics and physics from North Carolina Central University as a B.D. Scholar. She is currently a second-year Ph.D. student in the Nanoengineering program at North Carolina A&T State University. "During my life I have worked to demonstrate my ability to adapt and overcome, and due to this attitude, I have enjoyed my past and present endeavors. I have had several lab positions throughout my schooling and am currently the Lab manager for the Nanomaterials Department at the Joint School of Nanoscience and Nanoengineering, a program started in 2010 by a joint partnership of UNCG and NC A&T State University. I was one of the first students to be part of the program, and I am currently working on my dissertation for my PhD. in Nanoengineering under the supervision of Dr. Ajit Kelkar."

DELAUREN MCCAULEY received a B.S. in chemistry from North Carolina Central University, and is currently pursuing a Ph.D. in analytical chemistry as a Bridge to the Doctorate Fellow at the University of Maryland, Baltimore County. Additional achievements include being named a Meyerhoff Graduate Fellow.



COURUN WILLIAMS is a senior biology major at North Carolina Central University. His achievements include SROP Research Fellow, Duke University, SRI Research Fellow, Davidson College, and REU Research Fellow, North Carolina State University, and NCLSAMP Research Fellow, North Carolina Central University. I knew as early as the first day of biology class in high school that I wanted to pursue a career in biology. Knowing what I want to do with my life has helped me focus on preparing for a career in research from day one; it has also given me access to tools and support I don't believe I would have received otherwise. My research interests have grown to include botany, genomics, pathology, and ecology with each research experience I undertook.

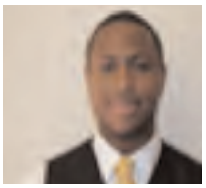
NORTH CAROLINA STATE UNIVERSITY

NCSU

With more than 34,000 students and nearly 8,000 faculty and staff, North Carolina State University is a comprehensive university known for its leadership in education and research, and globally recognized for its science, technology, engineering and mathematics leadership. As one of the leading land-grant institutions in the nation, NC State is committed to playing an active and vital role in improving the quality of life for the citizens of North Carolina, the nation and the world. At the core of NC State's success is its focus on academic excellence. The quality of NC State's students, faculty and staff is exceptional, making the university a national leader in teaching, research and outreach that makes a difference.

featured scholars

JAVON MARCELL ADAMS received B.S. and M.S. degrees in Civil Engineering from North Carolina State University. He is currently a Ph.D. student in the Civil Engineering Transportation Systems program. His achievements include 2010 Ford Foundation Pre-Doctoral Fellow, and 2009 recipient of the Black Alumni Society Graduate Scholarship. "A STEM career likely has always been the path for me, even before I knew it. I've always excelled at math and science but, beyond that, I have always been passionate about problem solving whether it was in the form of simple puzzles or complex calculations. A career in an engineering discipline has allowed me to utilize those strengths. Also, I am highly competitive so I desired a career path that would allow me to face new challenges that would have an impact on the lives of many. I am reminded of the reason I chose this career path every time I utilize my understanding of the principles behind a problem to develop a new method to resolve that problem in my current Ph.D. research."



KYLE LINNARD DAVIS received a B.S. degree in Electrical and Computer Engineering from North Carolina State University, and is currently a Ph.D. student in Biomedical Engineering at Washington University in St. Louis, Missouri. His achievements include, Chancellor's Fellow at Washington University, Eta Kappa Nu Electrical Engineering Society, and Leadership Alliance member at John's Hopkins University. "While at North Carolina State University, I was an active participant in the MEP programs from the time I decided to attend. I began by attending the overnight stay where I confirmed that I would attend North Carolina State University. From there I was a participant in the STP program and got a head start on my undergraduate coursework and met people that I would continue to develop a relationship with."

JUSTIN HICKS received a B.S. degree in Biomedical Engineering from North Carolina State University in 2011. He is currently an Associate Researcher in the Radiation-Induced Osteoporosis Laboratory at the University of North Carolina at Chapel Hill. His achievements include a NIH Research Grant Diversity Supplement, Tau Beta Engineering Honors Society, Golden Key International Honor Society, and the Larry Keith Humility Award from the UNC School of Medicine. "My Ah-ha moment when I realized that STEM was a career for me was my freshman physics class which proved to be challenging; however, I realized I had a natural knack for problem solving in which I excelled. While pursuing my bachelor's degree, I participated in many of the minority engineering programs at NC State University which I attribute my collegiate success to. I applied all of the lessons learned from this summer program which allowed me to find early success in engineering."

VERONICA MBANEME received a B.S. in Biological and Agricultural Engineering at North Carolina State University after completing an A.S. Science degree a Wake Technical Community College. She is currently a Biology and Agricultural Engineering doctoral student at NCSU. Her achievements include the Bridge to the Doctorate Fellowship, and the Graduate Research Fellowship. Early in my undergraduate tenure at NC State University (NCSU), I often found myself contemplating the role I would play in society. While enrolled in a contemporary science, technology and society course, I developed a personal connection with biological engineering (BE) research and education. Learning about one of the great dilemmas of our day, petroleum-based fuels, really hit home for me. During the present economic recession, I have personally witnessed family members struggle to provide necessities, including gas for transportation, food for nourishment, electricity for heat and even shelter. These personal experiences led me to realize the direct importance of BE research and its beneficial applications to society."

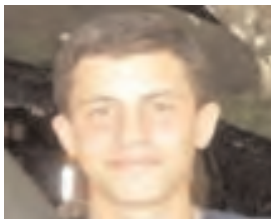
JOY MARIE JOHNSON received a B.S. degree in Electrical Engineering from North Carolina State University in 2007, and a M.S. in Electrical Engineering from MIT in 2009. She is currently a Ph.D. Candidate in Electrical Engineering at MIT. Her achievements include NCSU Honors Program, Intel GEM Ph.D. Fellow, MIT Presidential Fellow, and Sigma Xi Research Honor Society. "While at NC State I was involved in the Summer Transition Program (STP) as a participant and the MEP Mentoring program (START) as a mentor for other minority engineering students. STP definitely put me two steps ahead of the game when entering as a freshmen with no background in the sciences. It gave me the confidence and the resources to choose a major in engineering and thrive. Additionally the MEP and Dr. Mitchell introduced me to summer research programs which one in particular (NNIN at Cornell University) changed my life. It was there that I met my lifelong mentor who inspired me to go for a PhD".

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

UNC

The University of North Carolina at Chapel Hill, the nation's first public university, serves North Carolina, the United States and the world through teaching, research and public service. We embrace an unwavering commitment to excellence as one of the world's great research universities. Our mission is to serve as a center for research, scholarship and creativity and to teach a diverse community of undergraduate, graduate and professional students to become the next generation of leaders. Through the efforts of our exceptional faculty and staff, and with generous support from North Carolina's citizens, we invest our knowledge and resources to enhance access to learning and to foster the success and prosperity of each rising generation. In fall 2010, Carolina enrolled 3,960 first-year students drawn from a record 23,271 applications – a 24 percent increase over the past five years. More than 78 percent graduated in the top 10 percent of their high school class.

featured scholars

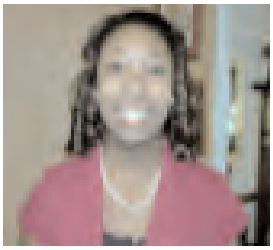


IGAL BUCKAY is a physics major at the University of North Carolina at Chapel Hill. During the summer of 2011, Buckay participated in the Science and Math Achievement and Resourcefulness Track (SMART) program. Dr. Falvo and Dr. Superfine, Nanoscience Research Group (NSRG), served as his faculty research advisors. Buckay's research project title was The Mechanics of Fibrinolysis. Buckay believes that his experience in conducting biophysics research will help him to decide what area of physics to pursue as a career.

KEIA FAISON is a biology major at the University of North Carolina at Chapel Hill. During the summer of 2011, Faison participated in the Science and Math Achievement and Resourcefulness Track (SMART) program. Dr. Christopher J. Fecko, Chemistry Department, served as her faculty research advisor. Faison's research project title was Dye Sensitized DNA Photodamage Quantification. Faison plans to pursue a career that involves research.

TIFFANY KING is a mathematics and applied mathematics major at the University of North Carolina at Chapel Hill. During the summer of 2011, King participated in the Science and Math Achievement and Resourcefulness Track (SMART) program. Dr. Laura Miller, Mathematics Department, served as her faculty research advisor. King's research project title was Valveless Pumping of Sea Squirt Hearts. King plans to continue conducting research until she graduates and is considering a career in research. ing is currently serving as an Office for Undergraduate Research Ambassador.

RUSSELL MAXWELL is a Biostatistics major at the University of North Carolina. During the summer of 2010, Maxwell participated in the Science and Math Achievement Resourcefulness Track (SMART) program. Dr. Zefeng Wang, Pharmacology Department, served as his faculty research advisor. Maxwell's research project title was Alternative Splicing of 3' UTR in VEGF-A.



KINSLEY RICHARDSON is a chemistry major at the University of North Carolina at Chapel Hill. During the summer of 2011, Richardson participated in the Science and Math Achievement and Resourcefulness Track (SMART) program. Dr. Sean Washburn, Physics and Astronomy Department, served as her faculty research advisor. Richardson's research project title was Gas-Sensing Nanowires. Being a chemistry major and working in a Physics lab gave Richardson an opportunity to get out of her comfort zone. Richardson says her experience strengthened her passion for research and she is now considering a future in pharmaceutical research.

UNIVERSITY OF NORTH CAROLINA-CHARLOTTE

UNCC

The University of North Carolina at Charlotte (UNCC) is North Carolina's urban research university. It leverages its location in the state's largest city to offer internationally competitive programs of research and creative activity, exemplary undergraduate, graduate, and professional programs, and a focused set of community engagement initiatives. UNC Charlotte maintains a particular commitment to addressing the cultural, economic, educational, environmental, health, and social needs of the greater Charlotte region. Activities at UNCC that broaden STEM's impact include several collaborative efforts with middle and high schools students, and implementing AVID Day for 400 middle school students, The LIGHTS Expo that includes 16 high school and 7 college level young ladies, and MSEN tutoring and mentoring activities for 286 middle and high school students. In 2013, UNCC will hosting the State of NC Undergraduate Research and Creativity Symposium (SNCURCS) which averages 800 poster and oral presentations on the campus. This is a joint initiative with the NCLSAMP program.

featured scholars

DANIELLE L. ANDERSON received a B.S. in civil engineering at the University of North Carolina at Charlotte. I knew since high school that I wanted to be in a field that set me apart from others, where I could learn a unique set of skills as well as make an impact on society. Civil Engineering would help me to achieve all of these things. Very important factors in my success were programs promoting and supporting students in STEM disciplines (i.e. PRODUCE and LSAMP). These organizations provided me with the resources, such as tutoring, scholarships, and internship opportunities, which are essential in thriving in STEM disciplines. I had an opportunity to intern with Duke Energy Carolinas within various departments from 2008 to 2010. Even as an intern, I had an important role in helping to provide a service that has had an unprecedented impact on society…electricity! I had an idea that engineering was a good fit for me, but the support, opportunities, encouragement given to me at UNC Charlotte helped validate my decision.

TIFFANI A. TEACHEY received a B.S. in Mechanical Engineering, and M.S. in Engineering Management from the University of North Carolina at Charlotte. She is currently employed as Assistant Lead Mechanical Engineering at the Shaw Group. "The moment when I realized engineering was for me, was when I started UNC Charlotte the summer of my freshman year at the University Transition Opportunity Program (UTOP) in which I was able to represent as a Producing Readiness of Diverse University Cohorts in Education (PRODUCE) student. PRODUCE served as a vehicle to my college and career success, because I was able to gain access to a wealth of resources ranging from mentoring, tutoring, funding, and various networking opportunities, which ultimately led to me obtaining my mechanical engineering degree. As a member of various professional organizations, I will continue to positively impact the community and be an advocate about the importance of STEM to our youth."

KAJA Q'TRELL RICHARD received B.S. degrees in Biology and Chemistry from the University of North Carolina at Charlotte, and completed a M.S. degree in Molecular Medicine at the University of South Florida. He is currently a researcher at Axiom Diagnostics, in Tampa, Florida. "After pursuing my Master's in Molecular Medicine at USF, I decided to teach science. For two and a half years, I taught biology, chemistry and physics while tutoring after school programs and personal sessions. Considering my background, I made a change of career into industry research. I recently, received an opportunity and pursuing biological and chemical opportunities as a contractor in Tampa, FL."

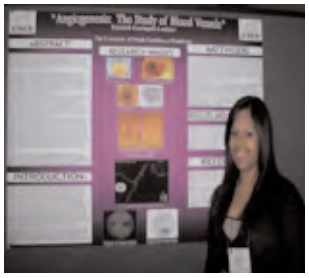
UNIVERSITY OF NORTH CAROLINA AT PEMBROKE

UNCP The University of North Carolina at Pembroke (UNCP) is a master's level degree granting university within the University of North Carolina system, and is one of the country's rare public schools where you can establish an identity. Your name, strengths and passions matter. Your hopes about the future matter. Your courage of conviction matters. And your work ethic especially matters. Located in a small community, UNCP Pembroke is one of the safest campuses among UNC schools, and, according to U.S. News and World Report, it is among the nation's most diverse.

featured scholars

KENNAN COLLINS graduated UNC Pembroke in 2003 with a B.S. in Computer Science. While attending UNCP, he did research with Dr. Hwang and presented at several conferences. Kennan was also an active member of the American Indian Science & Engineering Society (AISES) student organization. Through AISES, Kennan was selected to attend IBM's Native American Recruitment weekend in Albuquerque, NM in 2003. After graduation, he received employment as an IT Specialist with IBM.

KAMERON RICHARDSON graduated from the University of North Carolina at Pembroke with a B.S. degree in Biology, with an emphasis in Botany. While attending UNCP, he was very involved with research and presented his findings at numerous conferences. Kameron was also an active member in the American Indian Science and Engineering Society (AISES) student organization, for which he served as regional student representative for two consecutive years. Upon graduation, he was accepted into the Interdisplinary Biological Research Program at the University of South Carolina. In 2011, Kameron taught Biology for the UNCP/NC-LSAMP Summer Bridge class.



ELIZABETH LOCKLEAR was in the 2004 Summer Bridge class at the University of North Carolina at Pembroke, and graduated in 2008 with B.S. degrees in Chemistry and Physics. While at UNCP, she was very involved with the American Indian Science & Engineering Society (AISES) student organization, which she served as regional student representative. Upon graduation, she attended graduate school at UNC Chapel Hill, and received a degree in Radiologic Science. She is currently employed as a Cardiovascular Specialist.

WINSTON SALEM STATE UNIVERSITY

WSSU

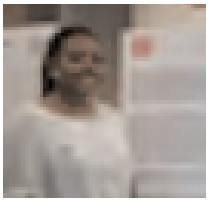
Winston-Salem State University, a constituent institution of the University of North Carolina, is a historically black university that today is a recognized regional institution offering baccalaureate and graduate programs to a diverse student population. U.S. News and World Report has ranked the university among Top Public Comprehensive Colleges in the South - Bachelor's Category (2001-2009). Founded in 1892, WSSU is a master's level coeducational institution, WSSU offers more than 40 undergraduate programs and 10 graduate programs. Students are engaged in active and experiential learning and have access to education through flexible delivery modes. The University is dedicated to the development of students through excellence in teaching, scholarship and service. As a comprehensive, historically Black constituent institution of the University of North Carolina, Winston-Salem State University contributes to the social, cultural, intellectual and economic growth of the region, North Carolina and beyond.

featured scholars

JEREMY T. BROOKS received a B.S. degree in Chemistry with a concentration in Biochemistry from Winston-Salem State University. His achievements include Treasure for the Beta Omega Chapter of Lambda Upsilon Honorary Chemical Society, STEM Scholarship, member of WSSU chapter of the American Chemical Society, and National Society of Collegiate Scholars. "While pursuing my Bachelor's degree and researching careers, I began to understand the passion I had for the pharmaceutical field. I attended several higher education programs that allowed me to gain essential knowledge of how to reach my desired career in the pharmaceutical field. The moment I determined my passion in life, I knew my next step was to attend graduate school and pursue my PhD in Pharmaceutical Science."

JAMES P HILL, JR. earned a B.S. degree in Computer Science major at Winston-Salem State University. His achievements include LSAMP Scholar, Computer Science and Technology Scholarship, Summer REU at Rice University, Technical Assistant at the C.G. O'Kelly Library, and participation in ARTSI. He is currently employed as a computer scientist. "Failure is simply the opportunity to begin again, this time more intelligently; meaning failure does not always have to be a bad thing, as long as you tried, and as long as you made it into a learning experience."

ANTWAN D. JOHNSON is an Information Technology major at Winston-Salem State University. His achievements include LSAMP, Toastmasters, and Volunteer for the Association of Governing Boards. "While pursuing my Undergraduate's degree, I have participated in a summer Volunteer Program at the Association of Governing Board, shadowing IT and CS graduates, and that experience helped me gather quality insight of my future. I was affirmed from the group leader and praised for the good work that I completed that summer. That moment let me know I am fully capable of earning an Undergraduate degree in Informational Technology. I am also considering graduate study."



SRI LANKA S. OWEN majored in chemistry at Winston-Salem State University, and graduated with honors. Her achievements include Dean's List, LSAMP, and Beta Omega Chapter of Phi Lambda Upsilon, and Summer REU at Winston-Salem State University.

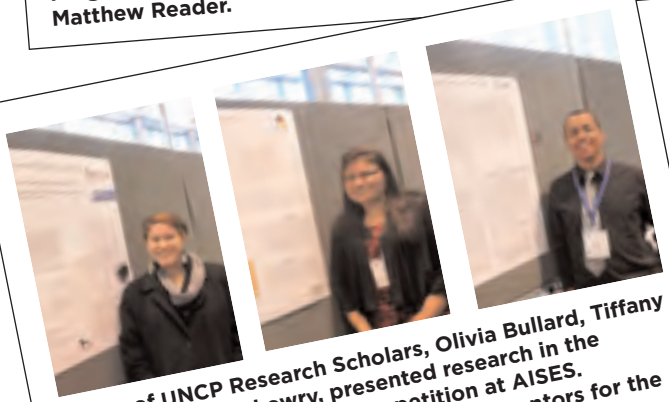
NCLSAMP
PHOTOS

Ms. Angelitha Daniel, NC-LSAMP Program Manager at NCSU presents award to Courtney Lucas (FSU) for 1st Place in Natural Sciences poster competition.

UNCC Coordinator and students attend Conference at Clemson University

NCLSAMP undergraduate researchers presented posters at the 2012 Emerging Researchers National Conference in STEM. Pictured are: Juanda Johnson-Taylor (NCLSAMP Program Manager), Chantel Simpson, Jamal Jones, and Matthew Reader.

Destenie Nock with Malawian women and children



Three of UNCP Research Scholars, Olivia Bullard, Tiffany Scott and Austin Lowry, presented research in the Undergraduate Research Competition at AISES. We commend these students and their mentors for the hours of hard work and dedication to the projects.

Thanks to the Pembroke Undergraduate Research and Creativity (PURC) Center, Weightless Wonder grant and fundraising efforts, seven students represented UNCP at the annual American Indian Science & Engineering Society (AISES) National Conference and Career Fair in Anchorage, Alaska.

2013 NCLSAMP Executive Committee Retreat

WSSU students receive awards for their presentations at the ADMI Conference

WSSU Research Scholars attend NCLSAMP Conference

David Etim (NCA&T) presents poster at 2012 NCLSAMP Annual Research Conference

Dr. Marcia Williams and BD Alumni Dr. John Shelton, Dr. Al-Aakhir Rogers and Renard Spratling

Jamal Jones (NCA&T) presents poster at 2012 ERN Conference

NC-LSAMP

North Carolina Louis Stokes Alliance for Minority Participation

North Carolina Agricultural and Technical State University